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# Gadgets

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**50**

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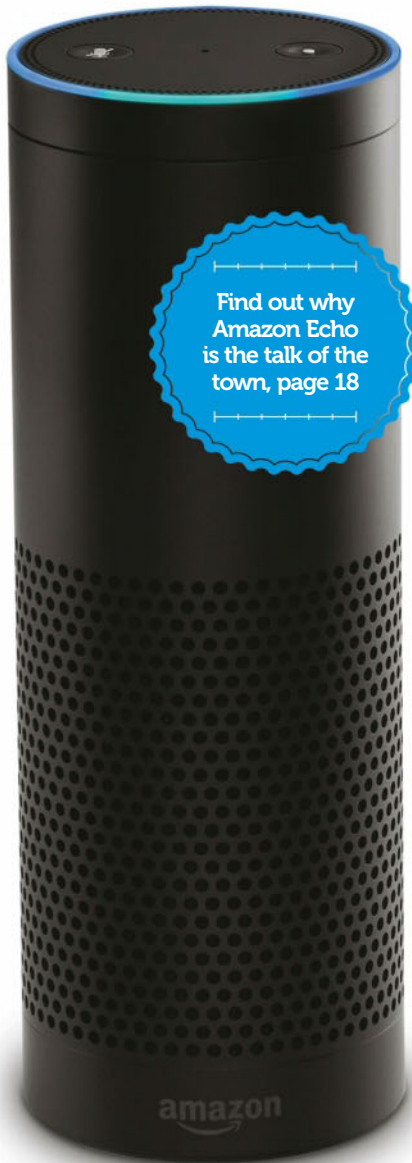


# EARIN

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## We need to talk about Alexa



In the last four weeks alone, Amazon Echo's virtual assistant has learnt to lock your doors, schedule appointments in your calendar, order your usual at Starbucks, and even diagnose what's wrong with you. Better known as Alexa, the system has 7,000 skills at last count, but this is clearly increasing all the time. 'So what?' you say – automation tool IFTTT has millions of ways of working with your gadgets and web services. Rather it's how you interact with Alexa that's so innovative: you just say what you want aloud and she makes it happen.

The Amazon Echo launched in the UK last September, but is set to be everywhere this year. Alexa will be able to control your washing machine, talk to you through your television, travel with you in your car and even strap to your wrist, thanks to Fitbit. For our guide to the best gadgets that will work with Alexa and obey your every word, turn to page 18.

Of course, Amazon isn't the one making talking tech. Google has its own assistant and you can read how its Home speaker compares to Echo on page 24. Sonos is playing it safe, saying its speakers will support both Alexa and Google Assistant, which might just give it an edge over the new Beoplay M5 (see page 56).

If all this talk of smart tech only confirms your fear that Skynet will soon become self-aware and rain down a robo-apocalypse on us, turn to page 84. Here you will find all the gear you need to survive, including water filters, solar-powered chargers and radiation-proof pants.

**Jack Parsons**  
Editor

## MEET THE TEAM...

*What's the best gadget you've seen this month?*

**Dave Harfield**  
Editor In Chief

*My inner Mod is excited to see Vespa is getting into tech, even if the Gita robot (page 6) doesn't look half as stylish.*



**Drew Sleep**  
Production

*I bought a Pi (page 42) this month and it's easier to get to grips with than*



**Aiden Dalby**  
Staff Writer

*The Sony Walkman NW-A35 was my personal favourite from our Five-Star 50 guide (page 35).*



**Stephen Williams**  
Senior Art Editor

*The Dell Canvas (page 13) works like a Microsoft Studio but is compatible with my Mac - I'm sold!*



## EDITOR'S PICKS



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**REBOOT YOUR RUN WITH THESE TOP TRACKERS**



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**MAKE LONG-HAUL FLIGHTS A BREEZE WITH THESE GADGETS**

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# WIN

WIN ANKI  
OVERDRIVE  
SUPERTRUCKS  
ON PAGE 16



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## REBOOT YOUR RUN





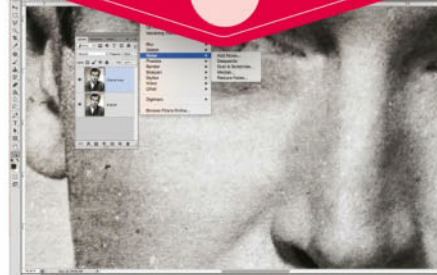
# TALK TO YOUR TECH

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Famicom





# STARTUP

KICKASS KICKSTARTERS • NEAR-FUTURE TECH  
LATEST LAUNCHES

## VESPA'S NEW ROBOT WILL CARRY YOUR SHOPPING

THE STYLISH SCOOTER maker's  
cargo droid has all  
the mod cons

### Zero turning radius

*Intended to manoeuvre even the busiest city streets, the spherical Gita can turn on the spot as well as use sensors to avoid obstacles*

### Highly mobile

*The robot is designed to go anywhere a wheelchair can, so it can use ramps, fit down shopping aisles and even take the lift. Alternatively, Gita can be parked outside while shopping*

### Follow the leader

*Gita will follow the signal given off by a tracking device the operator wears as a belt. Using this method, Gita can also learn routes so it can travel them on its own*





**The Italian company better known for making iconic scooters is branching out into robotics.** Piaggio, which makes Vespa scooters, is developing Gita, a spherical 'cargo robot' that will carry your shopping for you and follow in your footsteps.

Resembling an exercise ball with tyre tracks, Gita (pronounced 'jee-ta', which is Italian for 'short trip') is two feet tall and can carry 40 pounds (about 18 kilograms or five shopping bags full) of supplies. It can also travel at speeds of up to 22 miles per hour (mph), so can easily keep up with you if you're cycling home. The manufacturer also says it will have an eight-hour battery life.

Rather than using facial recognition or body tracking to follow you, like some

drones do, the Gita tracks a special white belt with built-in camera that you have to wear. While following you, Gita develops a 3D map of the surroundings, so that it can repeat the journey on its own. The robot also has its own cameras and an ultrasonic range-finding system to help it avoid obstacles, including other pedestrians. This means Gita could also be used to make deliveries across town on its own.

There is no word on a consumer launch date or a price just yet, but the robot will be test-piloted by a Boston-based spinoff of the company called Piaggio Fast Forward later this year, with Gita working in businesses and on university campuses around the US.



## A TASTE OF THE FUTURE?

Gita is not the first droid that could be used for making deliveries. The grandly-titled company Starship Technologies is currently testing its own six-wheeled robots in 56 cities worldwide. In the UK, this is in a partnership with online takeaway service Just Eat to transport pizzas, curries and more across the capital. After being tested in Greenwich, the drones are slowly being rolled out across London. These robots can carry 10kg and have a maximum speed of four miles per hour. When the robot arrives, the customer receives a notification with a code that unlocks the robot's lid.

### Biometric lock

To keep your precious cargo safe, Gita requires you to scan your fingerprints and enter a code to either open its lid or even start moving



### Flashy ride

As well as having wheels, Gita has LED rims. Less about showing off, this allows the robot to communicate with you





# STARTUP



## Look sharp

The LG Watch Style's 1.2-inch P-OLED display has a resolution of 360 x 360, which works out as 299 pixels per inch (PPI). This should make for a pretty sharp picture, which you can see all the better thanks to a scratch-resistant Gorilla Glass 3 cover

## Surprisingly sturdy

Though the LG Watch Sport is intended to be Android Wear 2.0's 'athletic' model, the stainless steel Style is still IP67 certified, which means it's water resistant and can keep out dust and other muck

# ANDROID WEAR 2.0 WANTS YOU TO LEAVE YOUR PHONE AT HOME

## OUT NOW

**After several delays, Android Wear 2.0 is finally here, and it's the biggest update to Google's smartwatch operating system ever.**

Apps will now be installed on the wearable, and won't require a smartphone to open. Instead, compatible watches will be able to use Bluetooth, Wi-Fi, or even their own mobile signal to receive notifications or get online.

To access apps, Android Wear 2.0 includes its own version of the Play Store. This should be of particular interest to iPhone users, as it will allow them to cheat on Apple and try a more affordable smartwatch without having to

replace their preferred phone. (A few Android Wear-compatible apps are available on iPhone already, but enough to make it worthwhile.) Some of the first apps to work with Wear 2.0 are the taxi-ordering service Uber, fitness app Strava, and Glide, which allows you to video chat via your wrist like your Inspector Gadget.

The update also adds support for contactless payments using Android Pay; customisable watch faces so that you can better personalise your device; in-depth fitness tracking with Google Fit; and you can choose to respond to messages by dictating,

typing or handwriting your answer. Android Wear 2.0 also brings Google's Assistant to your wrist, the same voice-controlled service that's also used on the Google Pixel and Google Home smart speaker.

Android Wear 2.0 was launched alongside the LG Watch Style (pictured, above) and LG Watch Sport. The Tag Heuer Connected 2 will also launch with 2.0 built-in later this month as will the Casio WSD-F20 in April. But the update is also available for every existing Android smartwatch, except the original Moto 360, LG G Watch and Sony Smartwatch 3.





### Standalone storage

Both the LG Watch Style and Sport have 4GB of storage, so it remains to be seen how many apps you it will hold as this is half what the Apple Watch 2 offers. The Sport also has 768MB RAM, while the Style has 512MB

### Rotating dial

Like a traditional wristwatch, the new LG Watch Style has a wheel dial on the side. Rather than for adjusting the time, this allows you to scroll through your favourite apps more easily



The 2.0 update will be compatible with over 20 existing smartwatches

## ... BUT BRITS WILL HAVE TO PAY EXTRA TO DO IT

Poster boy for the Android Wear 2.0, the LG Watch Sport (pictured, right) can support its own cellular connection, so that it can totally replace your phone. But, unlike our American cousins, UK users won't be able to tie their current number to the second SIM inside the wearable. In the States, network providers AT&T and Verizon allow users to do it, so if someone calls your regular mobile number, your watch will ring, even if you're away from your phone. However, UK networks EE, O2, Vodafone and Three have confirmed they won't be offering a similar service. Instead, you'll be forced to grab a pay-as-you-go or SIM-only package and use a second number for your smartwatch – which is cumbersome, to say the least.



## SECOND CHANCE

New smartwatches will launch soon, but Android Wear 2.0 has already revitalised these top time pieces



### HuaweiWatch

A Huawei Watch 2 is imminent, but the original already boasts one of the sharpest resolutions going with a PPI equal to an Apple Watch 2. Not just pretty to look at, it also includes a heart-rate monitor making it one of the best all-rounders.

£300 | \$350 | [huawei.com](http://huawei.com)

### Polar M600

Tricked out with GPS and heart-rate monitor, the M600 is the ideal watch for leaving your phone at home if you plan to hit the gym or pound the pavements. It's advanced fitness analysis is also way better than Wear 2.0's Google Fit app.

£300 | \$330 | [polar.com](http://polar.com)



### Asus Zenwatch 3

Though it looks like quite a traditional timepiece, Asus was one of the few manufacturers to have the foresight to include an NFC chip. Supercharged with Android Wear 2.0, you can now use this watch to pay with a swipe of your wrist using Android Pay.

£270 | \$320 | [asus.com](http://asus.com)



### Moto 360 Sport

What's the point of a smartwatch if it costs as much as the limb you would wear it on? This watch is a little lacking in its looks, but costs half as much as most Android Wear and will be as fully featured as the rest once you update it.

£170 | \$150 | [motorola.com](http://motorola.com)





# STARTUP

## The Move Hub

*This stud-covered brick is the Move Hub, the heart of all Boost creations. As well as providing power to the robots, other Lego elements are connected to the block*

## Sensors and motors

*By attaching various motors and tilt and colour sensors to the robots, you're able to use the app to create actions and routines for the robots to follow*

## Different bases

*There will be three robot bases: one for making walking animals, another for vehicles and a third for creating entrances such as castle doors*

## Five unique models

*Vernie the Robot, pictured here, is one of five suggested robots you can build, although Lego says Boost can be added to any brick kit from its City range to Batman*

# BRING YOUR LEGO BRICKS TO LIFE

ETA AUG '17

Earlier this year, Lego was said to have built itself into the world's most powerful brand, overtaking Ferrai for pole position. It doesn't appear ready to be knocked from its towering position any time soon, having unveiled Lego Boost, a new 843-brick coding kit that lets create your own working robot.

Set to come with a Bluetooth LE-enabled Move Hub that has an integrated tilt sensor as well as motors and a colour-distance sensor, you'll be able to build five high-tech models.

These include a robot called Vince, a playable electric guitar, an interactive meowing cat, a bulldozer and, perhaps most intriguing, an autobuilder which actually constructs small Lego models for you.

Unlike Lego's current, more advanced, robot-builder, Mindstorms, Boost will utilise the ordinary iconic bricks that are found in most kids' cupboards or on the floor (much to the dismay of bare feet). The creations can then be brought to life using a simple, easily-

learned drag-and-drop coding language that is similar to Scratch. This will be integrated within a free app for Android and iOS and there will have more than 60 activities to try.

With sound and light capabilities as well as the potential for open-ended creation, Lego is hoping the set will encourage a new generation of robotic enthusiasts and coders. Costing \$160 (UK pricing has yet to be announced), it's certainly looking to be good value for money.



**Trio! Triiiio!**

Multitasking can be performed in the three-column window mode. The touchscreen display is a tad disappointing, though, at just 1,200 x 800 pixel resolution

**Packed with power?**

The tablet's Intel Atom x5 processor isn't exactly cutting edge but you at least get 2GB RAM and 32GB storage. Lenovo won't say which version of Android it uses

**A great finish**

Aside from a anti-glare coating to lend a lovely matte finish, you can admire Yoga A12's Gunmetal Grey or Rose Gold casing. The battery will last for up to 13 hours on a single charge

**Flip the hinge**

The 360-degree hinge means the device can be used just like a laptop or else flipped right back on itself to form a still-thin tablet

# THE SUPER-SLIM YOGA A12 HAS A TOUCHSCREEN KEYBOARD

**ETA OUT NOW**

Last year, Lenovo released its ultra-thin, dual-screen tablet Yoga Book which was available with Windows or Android and allowed you to take notes or draw with a real-ink stylus. This year, it has dispensed with the pen yet retained the slim styling in the expectation its new lightweight Yoga A12 is going to fly off the shelves.

Although this fresh, lower-cost model has a larger, 12.2-inch HD screen, it opens to just 5.4mm at its slimmest edge and weighs in at less than a kilogram. It uses a modified version of Android Marshmallow that allows you to multitask over three columns while flipping between a laptop and tablet with the utmost ease, thanks to its 360-degree hinge.

But it's the entirely flat, touchscreen Halo keyboard which will amaze you the most. The same as that of the more expensive Yoga Book, it only activates when the needed. The unraised keys light up and give a gentle haptic feedback as you bash away so you know they are working, while built-in predictive software figures out your typing habits so that your wordsmith sessions become that much faster.

In many ways, the Yoga A12 shows how the productively landscape is changing: you don't need Windows or macOS to make light work of those tasks these days. Even better, while Yoga A12 is more akin to a Chromebook than a laptop, at \$299 (around £240 - a UK price is TBC), it proves innovation doesn't always have to cost the earth.



# STARTUP

# BEOPLAY'S WIRELESS HEADPHONES COST LESS THAN YOU MIGHT EXPECT

ETA OUT NOW

## Also wired for sound

Even if the H4's 19-hour battery dies, you can still use the headphones with a bundled 3.5mm jack. Alternatively, iPhone 7 users only have to wait 2.5 hours for them to charge

## Plush personalisation

As well as wrapping its aluminium-and-stainless-steel skeleton in lambskin coating, the ear cup cushions are filled with memory foam so they mould to fit your unique lugs

**Just bought yourself a shiny new iPhone 7, but realised there is no where to plug in your headphones?** Don't worry, high-end audio maker Bang & Olufsen has got you covered with its new Bluetooth Beoplay H4 over-ear headphones set, which is also the company's most affordable yet.

However, before you start rummaging through bargain bins looking for them, bear in mind Bang & Olufsen's previous wireless gold standard, the Beoplay H7, cost £330/\$400. Relatively speaking, the Beoplay H4 is more accessible, priced almost £100 less at £250/\$300. Crucially, the H4 even offers near-identical specs to the H7: the set has the same Beoplay sound signature, the same size 40mm drivers as the H7, and it has a 19-hour battery

life while the H7 set boast 20 hours. Bang & Olufsen has not skimped on design materials, either: its aluminium earcups are polished and anodised, while both of its ear cushions and headband are covered in super soft lambskin.

Where concessions have been made is that the H4 does not support the AptX audio codec that improves the sound of tunes streamed from your phone. Where the H7 set

also had touchscreen controls built into the earcups, the H4 only has physical buttons for adjusting music. But while these may seem less futuristic, they are also less finicky.

Of course, this is 2017, so the sets come with an optional app to download. The Beoplay App (for Android, iPhone and Apple Watch) allows you to switch between different sound profiles, including adjusting the audio for listening to podcasts instead of music and for when working out at the gym. It also allows you to tweak EQ levels to suit your needs and monitor the H4's battery life.

## App integration

The BeoPlay app for Android, iPhone and Apple Watch allows you to adjust EQ levels, monitor battery charge and switch between different sound profiles, including dedicated setups for podcasts and working out





# DELL'S CANVAS IS LIKE A SURFACE STUDIO WITHOUT A PC

ETA Apr '17

Microsoft caused a stir when it launched the Surface Studio last year. Many called the PC with fold-down touchscreen display a 'Mac Killer', offering a level of innovation Apple hasn't for some time, while also appealing to the Mac's user base of designers. But priced at £3,200/\$4,000, the Studio is unlikely to have the same mass appeal Apple has cultivated. However, Dell's new Canvas offers similar tech for less than half the price.

The Canvas is a touchscreen with a similar sloping drafting table design as the Studio. However, it is only a monitor, so it will work with

any existing PC. The Canvas is intended to work as a second screen that can be used for sketching or animation. The Canvas even comes with its own version of the puck-like controller that impressed people in the Studio demo. What Microsoft called the Dial, Dell has named the Totem, and both do the same thing: when placed on the screen, it pulls up a circular menu that can be used with different apps, such as a colour picker.

There is a slight trade-off, however, with the Canvas' chunky bezel looking less polished than the Studio and the screen is sub-4K.

## CANVAS IN NUMBERS

27 inches

The monitor also has a large bezel with magnetic strip for storing your stylus

2560 x 1440  
Resolution of the Canvas

Still Quad HD, but intentionally smaller than the Studio's so it would be compatible with more PCs

\$1,800

Cost of the Canvas

UK pricing is to be announced, but price conversion is £1,460



## 4 REASONS TO WAVE HELLO TO HAYO

ETA Sep '17

### 01 No talking

Hayo is like Amazon Echo for hand gestures. Instead of giving it voice commands, Hayo reacts to movements to control your smart home, for example pointing at your TV to turn it on.

### 02 Room scanning

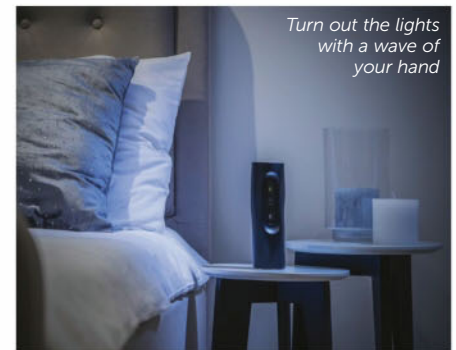
The Hayo recognises your gestures using a 3D sensors that creates a map of your room and detects when you make movements in set zones, which it knows trigger different commands.

### 03 Control everything

Hayo is compatible with Sonos speakers, Nest thermostat and other devices, Philips Hue and Lixf bulbs as well as Chromecast, but can also be used to answer or reject phone calls.

### 04 Back chat

If you like the sound of Hayo, its available to back now on crowdfunding site Indiegogo. If you donate £175/\$219, you will be able to get one of the first wave of Hayos this September.





01



05



## KICKSTARTER 10 WEARABLE TECH

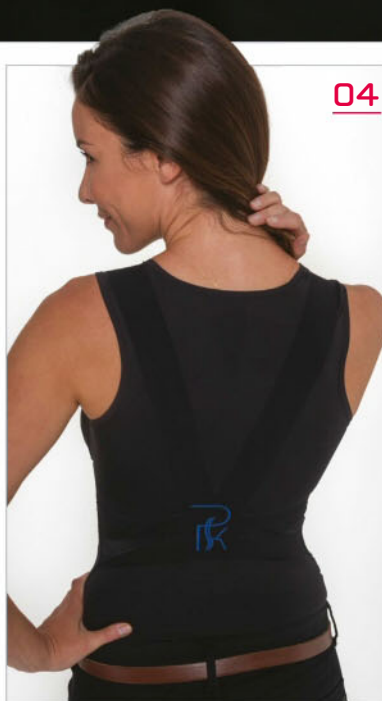
03



02



04



06



07







08

**01** Oura Ring

This ring records your sleep data as well as daily activity, such as walking, so you will be able to see your overall daily and nightly activity and how you can improve your overall lifestyle.

£280 | \$340 | [ouraring.com](http://ouraring.com)

**02** +Winter self-heating insoles

Heating your feet for up to five hours, these insoles work via Bluetooth and also charge wirelessly – you will barely notice that you are even wearing them.

£120 | \$145 | [plus-t-store.com](http://plus-t-store.com)

**03** Aurai eye massager

Your eyes work tirelessly during the day and need a rest from time to time. The Aurai massages your peepers with water, relieving any stress you might have from looking at screens all day.

£160 | \$200 | [i-aurai.com](http://i-aurai.com)

**04** Percko

Correct your posture with this smart undershirt. Fitted with sensors on your shoulders and around your lumbar area, Percko detects when your slouching and tightens to make you sit upright.

£110 | \$135 | [percko.com](http://percko.com)

**05** Blocks smartwatch

The world's first modular smartwatch, you can tailor the device to your needs. You can choose four modules with your purchase, such as programmable button or a flashlight, to name a few.

£270 | \$330 | [chooseblocks.com](http://chooseblocks.com)

**06** Gameband

Billed as the first smartwatch for gamers, this wearable comes preloaded with Atari classics like Pong and Asteroids. Play them on your wrist or connect to a laptop to play them on the big screen.

£145 | \$180 | [gameband.com](http://gameband.com)

**07** Wuf collar

Track your dog's activity, and if he or she runs outside of a designated safe zone your phone will be alerted and the collar's GPS location is tracked.

£155 | \$190 | [getwuf.com](http://getwuf.com)

**08** Fend helmet

This bicycle helmet will work hand in hand with your foldable bike. It can fold to one third of its size, making it convenient to store but it still retains the protection of a conventional helmet.

£100 | \$120 | [fendhelmet.com](http://fendhelmet.com)

**09** Pins Collective

Use Pins' smartphone app to upload images or GIFs and transfer them to the device via Bluetooth. The Pins' battery lasts up to 72 hours and has a resolution of 300 x 300 pixels.

£80 | \$100 | [pinscollective.com](http://pinscollective.com)

**10** Virtuali-Tee

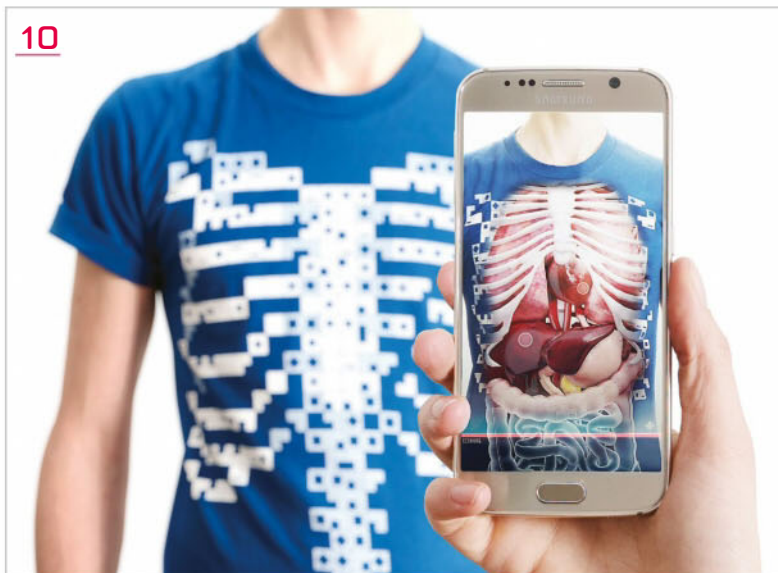
Learn how the human body works with this augmented reality T-shirt. The accompanying app displays a 3D animated model in AR when a smart device's camera is pointed at the shirt.

£20 | \$25 | [curiscope.com](http://curiscope.com)

09



10







# WIN ANKI OVERDRIVE SUPERTRUCKS

**Make your inner child squeal with this robotic racing set**

Things have moved on along way from that Scalextric set you had as a kid. Anki Overdrive's racing cars are remote controlled by your smartphone, but they use AI to make sure they stay on the track, leaving you to concentrate on beating your opponent. You can do this by overtaking them or blasting them with virtual weapons, including a railgun and mines that explode after a set time.

Because you're playing with some seriously clever toys, you don't just have to duel friends – you can also race one of 25 different AI opponents

(though the track only supports four at a time).

The better you play, the better these robotic racers become and regular software updates add new features to the game all the time. You can also reassemble and extend the modular track into any shape you like, adding corners, ramps, jumps and more, to vary up the gameplay.

While the Overdrive Starter Kit has been around for a little while, Anki have now added two more battle-racers to the fray in the form of supertrucks. Almost three times the size of Anki's supercars, with

weapons that can physically blast opponents off the track, these robotic rigs pit size and strength against speed and agility. The supertrucks also have their own game mode called Takeover, which allows any racer that can break through the lorry's defences to take command of it and wreak havoc on their opponents' supercars.

For your chance to win an Anki Overdrive Starter Kit, including two robotic supercars and a 12-piece track, plus a supertruck, answer the below question.

**FOR YOUR CHANCE TO WIN OUR ANKI OVERDRIVE GIVEAWAY,  
ANSWER THE FOLLOWING QUESTION:**

**QUESTION:** HOW MANY AI PERSONALITIES DOES ANKI OVERDRIVE SUPPORT?

**A. 25 B. 50 C. 52**

Enter today at **[www.gadgetdaily.xyz](http://www.gadgetdaily.xyz)**

TERMS AND CONDITIONS The closing date for entries is 6 April 2017. Please be aware that answers must be submitted to the above website only. This competition is open to residents of the United Kingdom and Ireland only. Future Publishing has the right to substitute the prize for a similar item of equal or higher value. Employees of Future Publishing (including freelancers), their relatives or any agents are not eligible to enter. The editor's decision is final and no correspondence will be entered into. Prizes cannot be exchanged for cash. Full terms and conditions are available upon request. From time to time, Future Publishing or its agents may send you related material or special offers. If you do not want to receive this, please state it clearly on your competition entry.

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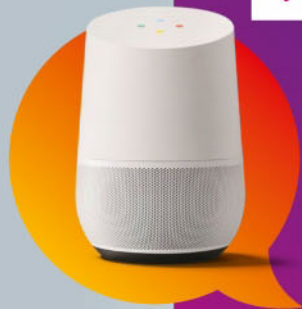


OXFAM



018

TALK TO YOUR TECH



# TALK TO YOUR TECH

SAY HELLO TO  
THE NEXT-GEN  
GADGETS THAT  
OBEY YOUR EVERY  
COMMAND

**Amazon wasn't at the CES 2017 gadget showcase in Las Vegas but Alexa certainly was.** Thanks to a decision to allow third-party devs and manufacturers to integrate the technology into their own products, the number of gadgets making use of Alexa has exploded.

Voice command tech is already the hot trend for this year and everyone seems to want in on the action. Google is certainly putting up a fight

with its low-cost Home speaker and there's talk of an equivalent device using Apple's Siri. Sony is hoping its cute Xperia Agent will give it the edge too but Amazon is leading the way.

Echo sales have reached more than 8 million units to date and the Christmas period has given this burgeoning sub-industry great hope. Nines times as many Echoes were sold at Christmas compared to the one before and

thousands of developers are eagerly lending it a host of new Skills.

By incorporating Alexa into tech as diverse as fridges and lamps and by allowing it to work in conjunction with all manner of gadgets, such as mobile phones, thermostats and audio systems, the seeds are being sown for truly connected home automation. So sit back, ask Alexa to order you a pizza and read on.



## LET ALEXA LIGHT THE WAY

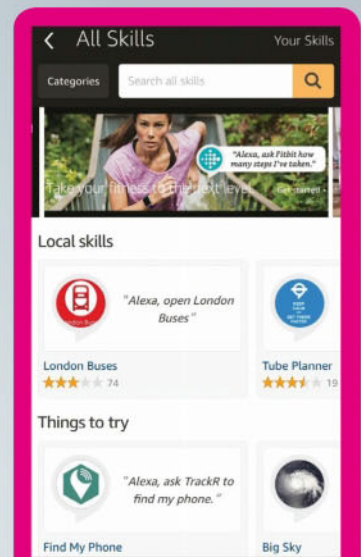
Alexa is already on the road to sainthood – she certainly won't swear or get angry with you – but giving her a halo? Really? Well, it appears that GE has done exactly that by devising a standalone, voice-controlled, circular lamp that has an Alexa-enabled microphone and speaker built into its base.

Not only does it look contemporarily gorgeous, it works in exactly the same way as Amazon Echo albeit without the use of separate unit, phone or hub. Issue instructions and a set

of blue LEDs on the inner rim will light up to the sound of your voice, prompting Alexa to respond.

You can then play music, set alarms, listen to a news briefing, create a shopping list enjoy a joke or control other Alexa-compatible devices. And because it operates as a fully-functioning light that illuminates your room, you can also use it to switch the lamp on and off.

**C by GE Lamp with Alexa**  
TBC | cbyge.com



### WHAT ARE SKILLS?

Ask Alexa what a skill is and it'll answer: "A skill is the learned ability to carry out a task with predetermined results often within a given amount of time, energy or both." That, in short, means it is an ability possessed by any one person but it's not far off the mark when it comes to Alexa's own particular set of 'Skills'.

In Alexa's case, a Skill is a specialised app controlled by your voice, and when the Echo was launched there were 13 of them. Today, there are more than 8,000, with new Skills being created every week. By installing them, you can widen the scope of Alexa's interactions to play voice games, plan trips away, order rides, dictate messages, get recipes, hear flash briefings and much more.

Installing them is easy: just search for a skill on your Alexa app and tap Enable Skill. Some Skills require you to log into third-party accounts while others will work immediately. You can also enable and disable Skills using your voice. Saying "Alexa, enable BBC News," for instance, will activate this particular flashing briefing. Likewise, uttering, "Disable Sky News," will have the opposite effect.

## MAKE SOME EXTRA NOISE



While Amazon Echo has a 2.5-inch woofer and a two-inch tweeter capable of sending deep bass and high notes to your ears, the sound still won't reach neighbouring rooms with any great clarity. Pop these Bluetooth speakers into your ceiling, though, and you'll be able to stream music from an Echo or Echo Dot while using either device to control them.

Aside from turning the speakers on and off and figuring what you'd like to play, you can change and even cap the volume – perfect if you want to tone someone's taste in music down a bit. The speakers also come in two guises: one for use in normal rooms and a waterproof version.

In either case, they are fitted without the need for a separate amplifier and they only need to be connected to your lighting circuit in order to power. Since you can connect up more than one, you can have stereo sound and because they use magnetic covers, they can be swapped out if you wish.

**Lithe Audio Ceiling Speaker**  
£200 | \$N/A | litheaudio.com





## Not so dim

Get Hive to turn plugs on and off and do the same with lightbulbs. You can also get Alexa to dim or brighten your lights if you want

## Language skills

There are more than 80 ways to phrase commands to Alexa, letting you boost your heating or hot water too, switch your heating to a specific temperature or turn it off

## No sense in sensors

Sadly, you're unable to use Alexa to ask if any windows or doors have been left open because it doesn't work with Hive's sensors



# SNUGGLE UP WARM WITH A WORD

Thermostats have definitely become hot property in recent years and it's easy to see why. They look sleek on the wall and they can be controlled by the phone in your pocket. But they've also become the centre of many a smart home, with companies such as Nest and Hive creating whole ecosystems around their products.

Nest was first off the mark in allowing you to control your thermostat via Alexa, yet Hive has well and truly caught up. Once you've downloaded the Alexa app and enabled the Hive Skill, you're able to connect with the thermostat and any Hive bulbs and plugs that you have lying around.

From that point, you can verbally ask Alexa to put the heating on at a specific temperature, switch lights on and off or activate any devices plugged into a Hive socket. Best of all, Hive has got to grips with British dialect and unique turns of phrase. Say, "Crank the heating up," or, "Let there be light," for instance, and it'll know exactly what you want to happen.

## Hive Thermostat

£250 | \$N/A | [hivehome.com](http://hivehome.com)



## UBTECH LYNX ROBOT

Putting a face to a name, Ubtech's robot combines facial recognition with Alexa's voice service to create tailored interactions depending on who is standing in front of it. Due out later this year, it'll answer your pressing questions, play music and let you set reminders while giving you a remote glimpse of your home from afar thanks to its eye-view camera.

TBC | [ubtrobot.com](http://ubtrobot.com)



## WEMO MINI SMART PLUG

Stick this small-form Alexa-enabled smartie into your plug socket and you'll not only be able to control any electronic devices connected to it, you'll be able to use the power of your voice to switch your appliances on and off. Accompanied by an app (yet currently US-only), its neat size also allows you stack two minis into a single outlet.

£N/A | \$35 | [belkin.com](http://belkin.com)



## ONELINK ALARM

First Alert has integrated Alexa into its smoke and carbon monoxide alarm so that you can check its status and even design an escape plan should the worst happen. Future versions are set to push Alexa further by effectively turning each alarm into ceiling-mounted Echos which, we're sure you'll agree, is a truly smoking idea.

£155 | \$150 | [firstalert.com](http://firstalert.com)

## "ALEXA, ADD EGGS TO SHOPPING LIST"



## LG's Wi-Fi smart fridge is pretty cool.

Not only does it have a 29-inch touchscreen on its front which turns transparent with a couple of knocks, there's a camera within its interior that you can view from afar on your smartphone.

On top of that is Alexa integration, allowing you to free up your hands to prepare food. You can use your voice to create shopping lists, order items and control other devices.

## LG Smart InstaView Refrigerator

TBC | [lg.com](http://lg.com)

# GET THE MOST FROM ALEXA

## 01 TRAIN ALEXA'S HEARING

We all speak in different ways but you may find that your speech pattern isn't being picked up properly by Alexa, leading to some frustrating results. To rectify this, pop over to the Alexa app, go to 'Settings' to 'Voice Training' and repeat 25 phrases.

## 02 MAKE YOURSELF KNOWN

Alexa will get to understand you better if it knows who it's talking with. If you have multiple users, go to [alexa.amazon.co.uk](http://alexa.amazon.co.uk) and select 'Settings' to 'Household Profile'. Once done, simply say: "Alexa, switch to [your name's] profile".

## 03 SWITCH YOUR MUSIC SERVICE

By default, Alexa is set to use the Amazon Prime Music library but chances are you don't subscribe to it. If you are a user of Spotify, Pandora or iHeartRadio instead, you can delve into the settings and switch over to your preferred choice under Music.





### HYDRAO FIRST

Replace your existing showerhead with this ecofriendly alternative and its lights will change colour depending on how much water you're using. The idea is that you'll spend less time washing, while letting you turn to Alexa for the lowdown on the amount of aqua you've saved and the likely impact on your energy and water bills.

£75 | \$100 |  
hydrao.com



### NVIDIA SHIELD TV

Nvidia's streaming Android telly box doesn't have Alexa integration just yet but the company admits it isn't ruling out the possibility in the near future. Indeed, Nvidia says it likes Alexa's open nature, and while Shield TV only works with Google Assistant at the moment, we wouldn't rule out a homebrewer creating a neat side-loadable project – something Nvidia appears to be encouraging.

£190 | \$200 |  
nvidia.com



### SAMSUNG POWERBOT VR7000

As well as boasting 20 watts of suction power, this robot vacuum cleaner recalls the layout of your room, skips around objects and figures the kind of surface it's gliding across. Get the Wi-Fi model, though, and you'll be able to order it to start and stop via Alexa which will limit your exertion to lifting your feet when it vacuums round the sofa.

TBC |  
samsung.com



### THE SKILL OF BETTER BREATHING

**Alexa sucks.** Or at least the Airmega Smart Air Purifier does. It is helping users overcome the perils of indoor pollution by using Alexa to bring voice controls to Coway's filtration system. Simply ask for information about the quality of the air in your home and you'll be told all you need to know. Alexa also allows you to set up the timer, turn the machine on or off and change the speed of its fan. You'll be breathing more easily in no time. Just as well given the 11,000 litres of air we take in each day is packed with toxins.

**Airmega Smart Air Purifier**  
EN/A | \$750 | airmega.com



## START TALKING TO YOUR TV

**Opinion is usually split when it comes to buying smart televisions.** On the one hand, they eliminate the need for an external device such as an Apple TV or Roku. On the other, they run the risk of being obsolete as time goes by.

Even so, this TV is still turning heads. Boasting a 4K display that ranges from 43 inch to 65 inches and coming with 3G memory and 16GB storage, the Westinghouse has Amazon's Fire TV platform built-in. That means you can have a direct line to Alexa via the built-in microphone of the TV remote to search content and launch apps. This will let you watch content and enjoy games.

By connecting the TV up to a HD source, you can easily access live programming, too. You can also use the television to control your various smart home devices and tap into Alexa's skills to turn on lights, activate plugs and heat up your house.

**Westinghouse Amazon Fire TV Edition**  
TBC | westinghouseelectronics.com

### Amazon Prime

*Amazon is hoping to put Amazon Prime TV front and central in your home, boosting the numbers of people who tune into the service*



### On a roll

*Westinghouse's Fire TV set is only the start. Amazon has also struck deals with Seiki and Element Electronics which plan to roll out their TVs this year*

### MAKE SHOPPING HARDER

That sounds counterproductive, but think about it: you don't want any random person asking Alexa to order items on your Amazon account. So create a four-digit confirmation code in Settings which needs to be said out loud to confirm a purchase.

04

### ADD A WAKE-UP SOUND

If you're talking to Alexa with your back to the Echo, you may not know if it's woken up. In 'Settings' then 'Sounds', you can activate Wake Up Sound, ensuring it beeps when Alexa stirs. Enable 'End Of Request Sound' too and it'll beep when you're done.

05

### PAIR ALEXA WITH IFTTT

Alexa doesn't have to work in isolation. Indeed, you'll find it more rewarding if you hook into third-party products and services. The recipe-based IFTTT app lets you produce applets which link them all up, putting Echo at the hub of your home.

06

### Full control

*Using Alexa, you will be able to look for programmes, access Skills and control the television's inputs and settings*





## HUSH! IS SOMEBODY LISTENING?

Of course, inviting an internet-connected listening device into your home raises privacy concerns. When you say "Alexa", your Echo springs into life. So that means it's always listening, doesn't it? Well, yes and no. Alexa is indeed constantly keeping its digital ear out for its wake word, but the listening at this stage is only local and it is not being saved.

Audio streaming only begins once Alexa is activated, either by uttering its name, pressing the button on top of the Echo or holding the mic button on an Amazon Fire TV remote (that's right, Alexa lives there, too). You'll know Echo is recording by looking out for the illuminated blue ring. It stops when the request has been uploaded to the cloud and processed.

You can then, if you wish, go to History in Settings in the Alexa app for your phone to review what the device has picked up (deleting any or all entries if you wish). Anything which remains is analysed by Amazon, which it claims makes the results more personal and accurate over time.

Yet while the data is encrypted, protecting it from hackers, the information will include the device location and it can be shared with third parties for their own anonymous market research. For that reason, you may want to refrain from linking sensitive accounts to Alexa and to mute Echo when it's not being used by pushing the mic on/off button on the top. You will know Alexa is not listening because the Echo's LED ring will glow a ferocious HAL 9000 red, until you switch the microphone back on.



## SPEAK TO ALEXA IN THE CAR



Drive with a mobile phone clasped to your ear in the UK and you'll face a fixed £200 penalty and six points on your licence. Fix your Android phone to the magnetic ZeroTouch car mount, however, and you can make and receive calls, play your music and even text using nothing more than your voice.

As the first product to make Alexa available for any car, this uses Bluetooth to automatically open the ZeroTouch app. You can then keep your eyes on the road while you control your home from afar or keep in touch with the wider world, sharing your location with others or using navigation apps to find your way around.

There's a big drive to make use of the voice service, though. BMW's Connected smartphone app uses Alexa in the US, allowing owners to lock the car remotely, check their fuel levels and keep an eye on the battery charge. Hyundai is also offering Alexa voice commands in its Genesis range while Ford recently announced it had teamed up with Amazon to offer the industry's first in-car Alexa capability.

### ZeroTouch

£50 | \$60 | [logitech.com](http://logitech.com)

## A REALLY PERSONAL TRAINER

If you already feel the number of available Skills for Alexa is exhausting, then you're going to be flat out when you hear that Fitbit has been integrating Alexa into its health products for around a year.

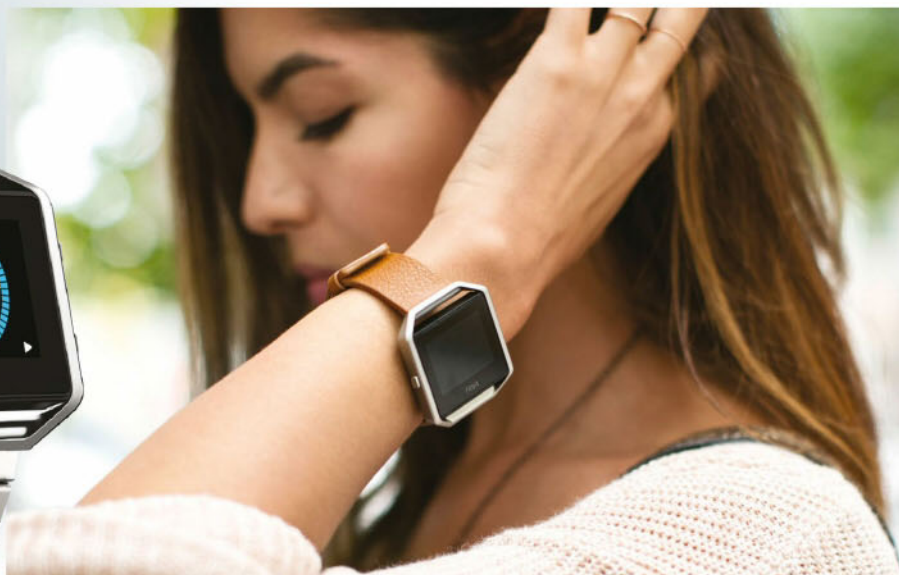
As the first wearable company to do so, it calls on Alexa to encourage you to stay on top of your goals. So aside from offering words of encouragement tailored to the time of day, you can ask for your step count, check how many minutes you've been active for, the number of

calories you've burned and how well you are sleeping.

Indeed, you can also ask for your resting heart-rate, your weight, the number of stairs you've climbed and how much water you've had. As long as the tracker is background syncing with the Fitbit app, the answers are just a shout away. In doing so, you don't have to lift an arm or even a finger.

### Fitbit Blaze

£160 | \$200 | [fitbit.com](http://fitbit.com)







### WHIRLPOOL SMART FRONT LOAD WASHER

Whirlpool could well clean up when it allows Alexa to be used to voice-control its washers and dryers over the coming months. You'll be able to pause and start the machines, activate the quiet mode, ask if its running and hear how long a cycle has to run. The company is looking at 'Skilling up' its smart ovens and refrigerators, too.

TBC | [whirlpool.com](http://whirlpool.com)



### DISH

American satellite pay-TV provider Dish is letting viewers tune into its Hopper 3 DVR by making the recorder compatible with Alexa. The Skill makes it easy to navigate, search and play television content with commands such as, "Go to HBO," "Turn on channel 200," and, "Play the Lakers game." Sadly, there's no direct equivalent for Sky viewers in the UK but the Echo serves up Sky News feeds.

£N/A | \$40 a month | [dish.com](http://dish.com)



### MATTEL ARISTOTLE

This device is set to have a dual personality, with Alexa accessible in adult mode and a new voice assistant called Aristotle for kids. The latter uses Microsoft Cortana for its AI while pulling information from Bing. The bonus is that Aristotle is child-friendly right down to providing help in soothing a crying baby and helping to teach good manners in the little ones.

£TBC | \$300 | [mattel.com](http://mattel.com)



## GET HYPER-LOCAL WEATHER FORECASTS FOR YOUR HOUSE

**We know, we know:** you can look out of the window if you want to know the weather but staring through glass won't give you a fraction of the detail that Netatmo's Weather Station gives. By setting it up and activating the Alexa Skill, you can ask Amazon's assistant to tell you the current temperature and pressure and get it to divulge the levels of humidity, sound and carbon dioxide. Bag more than one weather station and you can get the lowdown in a specific location. What's more, all of this can be done without even bothering to open the curtains.

**Netatmo Weather Station**

£140 | \$150 | [netatmo.com](http://netatmo.com)

# THE FIRST PHONE WITH ALEXA PREINSTALLED

Alexa is no friend of Apple's Siri and Google Assistant. If they were real entities rather than disembodied voices, you could easily imagine them bad mouthing each other the moment their backs were turned.

So quite what they'd make of the Huawei Mate 9 is anyone's guess. As the first phone to come preinstalled with an app that grants access to Alexa, Amazon's baby is finally muscling in on some fiercely-contested territory and it could set a precedent that will encourage others to follow suit.

Capable of tapping into many of Alexa's Skills and coming early this year (with over-the-air updates for anyone who has already snapped up a Mate 9), this expanded ability will allow you to set alarms, create to-do lists, get the weather, hear the news and receive traffic reports.

But, crucially, you'll be able to control your smart home devices thereby ensuring your lights are on as you head home. And because it's always listening, you don't even have the hassle of pressing any buttons. Could this indeed be a Mate for life?

**Huawei Mate 9**

£580 | \$600 | [huawei.com](http://huawei.com)

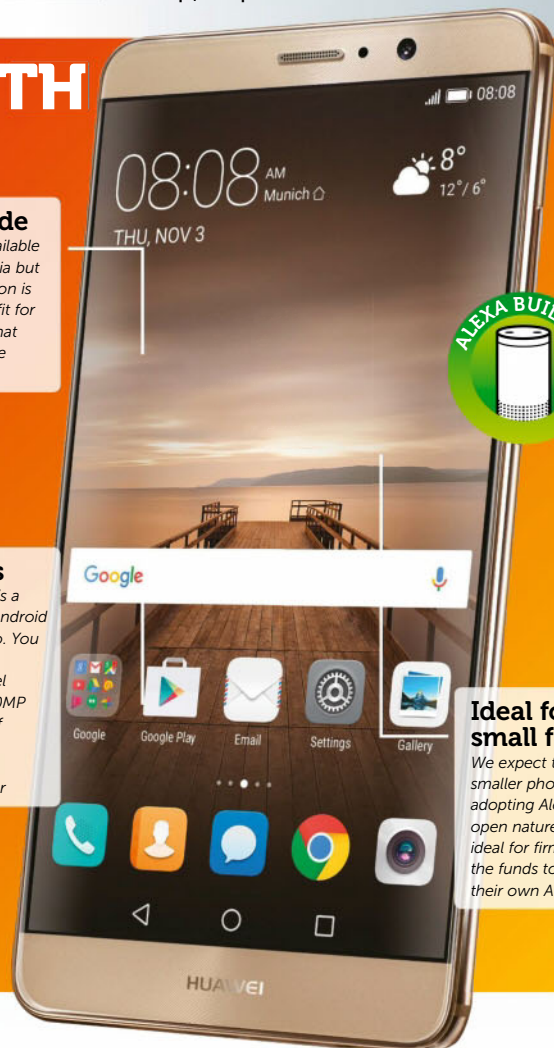
**"Crucially, you will be able to control your smart home devices"**

### Alexa inside

The Mate 9 is available in Europe and Asia but only the US version is getting the benefit for Alexa for now. That will surely change over time

### Top specs

Of course, there's a phone running Android Nougat here, too. You get a 5.9-inch, 1080 x 1920 pixel screen, a dual 20MP sensors, 64GB of memory and a rear-mounted fingerprint sensor



### Ideal for small firms

We expect to see smaller phone makers adopting Alexa – its open nature makes it ideal for firms lacking the funds to create their own AI assistants



# AMAZON ECHO



£150 | \$180  
amazon.com

## Amazon Echo

*A voice-activated speaker that boasts a voice assistant named Alexa at its core. It can be used to stream music, search the web, automate tasks and work with a wide range of smartphone apps.*

## Which of the home hubs should be the centerpiece of your smart home?

**A**l-powered virtual assistants have come on leaps and bounds in the past 12 months, primarily thanks to the emergence of Amazon Echo as a wallet-friendly option for users. Alexa soon became the virtual assistant that we always wanted, providing seamless support for wireless streaming and enhancing your daily life with your voice. Now while Google's Home may closely follow the success of what Echo offers, its shining light is its supposed compatibility with a greater number of apps and external products. But can Home seriously outdo everything that Echo has achieved? We're going voice-on to find out.

## DESIGN/ LOOKS

The cylindrical form of Echo isn't the nicest of shapes to look at, but the 360-degree speaker system used means Echo can pick up your voice from any direction. LED lights at the top of the unit provide a handy notification solution, letting you know when Alexa has something to tell you.

## PERSONAL ASSISTANT

Alexa has had numerous improvements in the past 12 months, but it does have some noticeable problems. It doesn't understand either context or natural language, meaning it won't be able to deal with a lot of the questions you may choose to ask it.

## HOME HUB

Being able to manage your daily life within Echo will be a big appeal for most. Not only is ideal for creating reminders on the fly, Alexa will alert you to upcoming appointments and events you may have forgotten. It's a smart system that gets smarter the more you use it.

## ENTERTAINMENT

Echo boasts support for a surprising amount of streaming services, but it works best with Amazon Music. Playlists can be queued up and Alexa can even make recommendations depending on your song choices. However, Alexa on other occasions can struggle sourcing albums.

# GOOGLE HOME

## DESIGN/ LOOKS

One of the better things about the Home system, is that it can be purchased with an array of different bases, which help it blend into any home. It's noticeably bulkier than the Echo, which will put off some, but its unusual shape is more pleasing on the eye.

## PERSONAL ASSISTANT

Thanks to Google's exploits with its Now software, Home is as clever as they come. Users can have a full conversation with Home's virtual assistant, through which subjects can be explored more closely when needed. It then saves this conversation for later use for its own reference.

## HOME HUB

Home doesn't have the same wow factor when it comes to managing your daily life, and lacks the reminder system that Echo boasts. It does provide support, however, for improved use with a wide range of smart home devices, allowing users to automate different functions through them.

## ENTERTAINMENT

Although Home doesn't boast the same breadth of streaming capabilities, it's holy grail is its YouTube capability that Echo can't offer. Playlists, mixes and even obscure DJ sets can all be picked up through Home providing instant playback. We would say it's behind Echo in terms of audio quality, however.

£104 | \$130  
google.com

### Google Home

*Imagine performing a Google search with your voice, well, that's the Home speaker. Users can command Home to stream music, set reminders and even more. Currently US only, but can be imported.*



## AND THE WINNER IS...



### Amazon Echo

Google Home's natural language skills and more varied colours options may give it in the advantage over Amazon Echo in the long run, but right here, right now, Echo reigns supreme in the smart home. It's wider support for other gadgets and web services mean that your every wish it is its command - if you phrase it correctly.

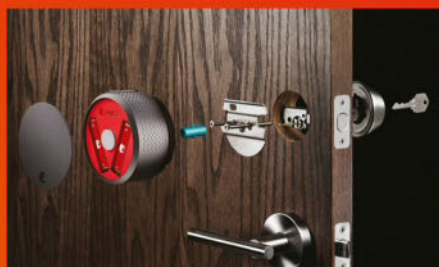
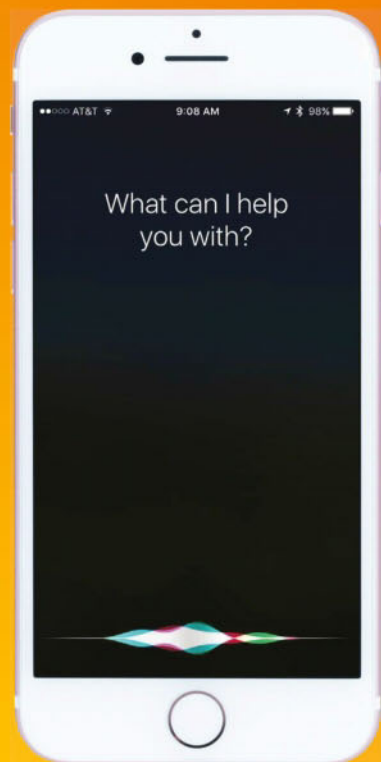


# WHATEVER HAPPENED TO SIRI?

Siri was the world's first virtual assistant when it launched six years ago. But the iPhone's own digital genie has massively fallen behind the new kids on the block, Alexa and Google Assistant. Algorithm improvements have made both of Siri's primary competitors able to perform more functions, and work in tandem with a greater spectrum of devices. But we shouldn't discount Siri just yet.

Just last autumn, Apple made Siri the marquee feature of its macOS Sierra launch. This brought its virtual assistant to its computer range for the first time. At the same time, on mobile, Apple added its Home app to iOS 10, which allows you to control your smart home gadgets via Siri. You can now also control these so-called HomeKit devices by talking to Siri through your Apple TV or Apple Watch. Admittedly, HomeKit hasn't been as widely embraced as Alexa yet, but Apple is working on it as well as opening Siri up to developers for deeper app integration.

Does this sound like a virtual assistant that is out for the count? As long as Apple continues to show this much interest in Siri, so will we.



## AUGUST SMART LOCK

This clever door lock uses a built-in Bluetooth connection that tethers directly to your iPhone, meaning as you approach your door, the connection will be established and the door will automatically unlock. It also works in tandem with Siri, enabling you to unlock doors with your voice that have the August Lock installed.

£225 | \$230 | [august.com](http://august.com)



## HONEYWELL LYRIC ROUND

Smart thermostats are one thing, but the Lyric takes it one step further. While it allows users to control the temperature from their iPhone, it can also alert the user to when it needs some maintenance. Even better is its geofencing feature, which lets Lyric know when you've left your home.

£85 | \$200 | [honeywell.com](http://honeywell.com)



## CONNECTSENSE SMART OUTLET

With the ConnectSense Smart Outlet, users are able to pinpoint and monitor the power usage throughout their home. Through the Home app, users are able to set programmed times of when the Smart Outlet should function, limiting the power that goes through it and lowering usage.

£105 | \$60 | [connectsense.com](http://connectsense.com)



## PHILIPS HUE

Get the perfect mood lighting every time with the Philips Hue system. Colours and brightness levels can be controlled through the Home app, while individual bulbs can also be selected to offer a different glow. It's another HomeKit device that can also be controlled with your voice, which we love!

£60 | \$70 | [philips.co.uk](http://philips.co.uk)



## ELGATO EVE

This system of sensors from Elgato, named Eve, is an all-in-one kit for monitoring different aspects of your home. Each of its sensors is placed in a different area of your home, and systematically they relay information regarding humidity levels, air quality and temperature directly to your iPhone.

£40 | \$60 | [elgato.com](http://elgato.com)



## FIRST ALERT ONELINK

This wireless smoke alert system can be installed in less than ten minutes, offering users an instant response to their smartphone when a fire is brewing. Its HomeKit integration can also be used to run tests in order to make sure that it's in working order, and, on top of that, it performs battery checks daily.

£330 | \$120 | [firstalert.com](http://firstalert.com)

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PROTECTION SINCE **1976**

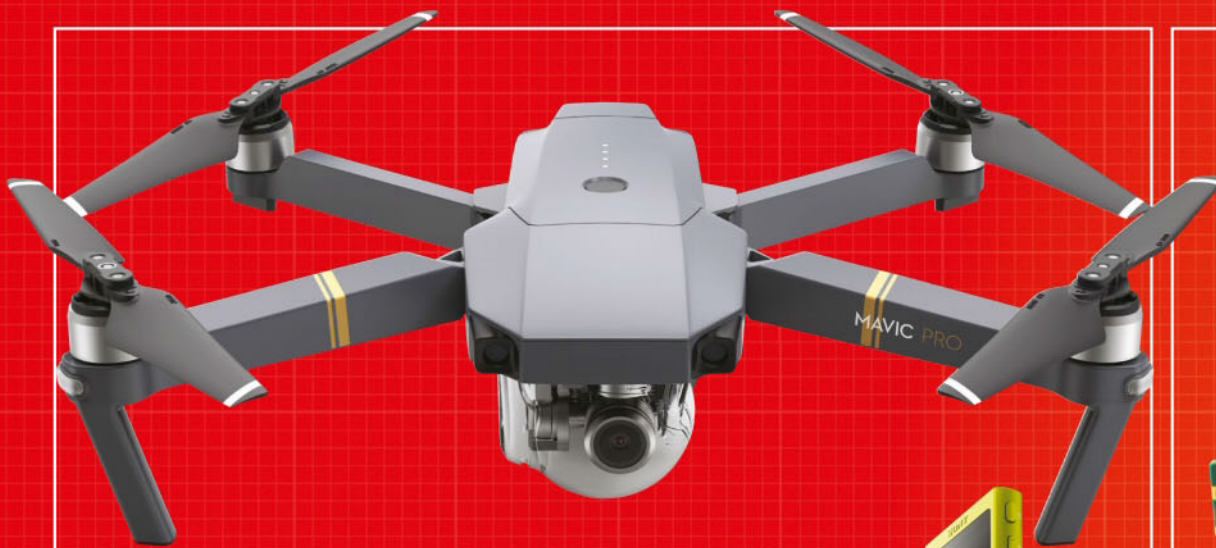
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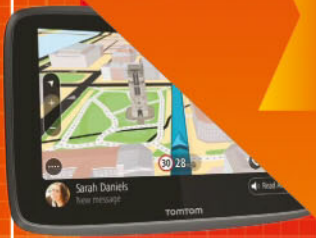
# THE FIVE STAR

# 50

## ONLY BUY THE BEST OF THE BEST

It's true what people say, technology moves forward at a frightening pace. Gadgets are being made smaller and more convenient than ever before with earbuds now being completely wireless, fitness trackers condensed into rings and laptops now being able to flip around and become tablets. And while the overall size is getting smaller, the power and amount of features in these devices isn't suffering. Who knows what new

stuff we will see before 2017 is over, but we're here to talk about the five-star tech that's out now, these gadgets we've picked are the best in their field and should be the ones you should go for when you're looking to make a purchase. From kitchen to bathroom, high-end to high-savings and cutting edge to retro-inspired, we've looked at countless pieces of tech and chosen the top 50 of 2017 that deserve all the praise they get.







## SNAP 360-DEGREE PHOTOS AND VIDEOS

The compact, pocket-sized Theta SC is the most unimposing and easy-to-use VR camera that we've used. Taking a 360-degree footage of everything around you, even yourself, is done with the push of a button, then, using its companion app, you can upload your shots straight to your social media channels. The Theta SC has dual-14MP lenses, 8GB of memory and a tripod mount, its only downside is it can only film up to five minutes of footage at a time, while the older Theta S can film for five times longer. Ricoh Theta SC | £250 | \$270 | [theta360.com](http://theta360.com)

## THESE BUDS ARE TRULY WIRELESS

Motorola has upgraded its VerveOne wireless earphones with HD speakers for better music listening. It has also given the buds a white-and-grey colour scheme, which is more neutral than last year's black and orange design. They are cheaper and less ostentatious than Apple AirPods, while each bud has a button to skip tracks, answer calls or talk to either Siri or Google Assistant. Battery life lasts eight hours, but they also come with a portable charging case.

**VerveOnes Music  
Edition by Motorola**  
£150 | \$150 | [verve.life](http://verve.life)



# THIS POWER RING TRACKS YOUR FITNESS

The Motiv Ring contains all the tech you'd expect from a fitness band but manages to wrap it around one finger. Its app communicates with the device via Bluetooth, tracking your workouts and activity then analyses the data to see if you're meeting your goals. If you miss a

workout, the app will automatically adjust your daily targets and notify you of what you need to do to achieve them. The Motiv Ring is made from ultralight titanium in either gold or slate, it's waterproof up to 165 feet (50 metres) and has a battery life of up to five days that can be recharged in

an hour and a half. The ring is meant to be worn day and night, tracking the times that you are active, your heart-rate, the calories you have burned, steps you've taken, hours you've slept and more, so you have a 24-hour picture of your overall health. Motiv Ring | £160 | \$200 | [mymotiv.com](http://mymotiv.com)

### Made to order

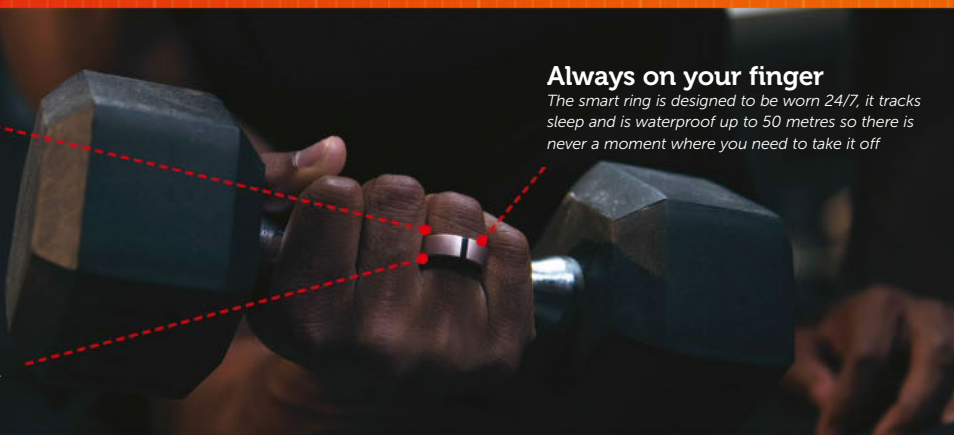
When you order the Motiv you will be sent a box with plastic versions of the ring in different sizes so you can choose the fit for you before you buy

### USB magnetic charging

The Motiv Ring has a battery life of up to five days but only takes 90 minutes to fully charge and can be done with one of the two chargers that comes boxed

### Always on your finger

The smart ring is designed to be worn 24/7, it tracks sleep and is waterproof up to 50 metres so there is never a moment where you need to take it off





# NEXT-GEN NINTENDO WILL TRANSFORM GAMING

Nintendo's last console, the Wii U, was a failure to say the least, no one expected it to do match the Wii's success, but due to its poor marketing the console confused audiences and never gained any momentum. While its home console hasn't been doing well, Nintendo has always had success with its handheld devices, its current handheld, the 3DS, has sold 65.30 million units as of the end of 2016. The

Japanese company seem to have learned its lesson and is looking to be on track with its latest device, the Nintendo Switch. The console/handheld hybrid allows you to have the same gameplay experience when sat at home as when you're out and about. With its kickstand at the back you can remove the controllers and play it like a console or play with both controllers attached like a traditional handheld. The Switch comes

with two Joy-Con controllers, each can be used as separate controllers or attached together like a traditional pad, up to eight of them can connect to a single device. There aren't a plethora of games ready for the system's launch but the technology is promising and Nintendo's own franchises tend to perform well critically.

**Nintendo Switch**

£280 | \$300 | [nintendo.com](http://nintendo.com)

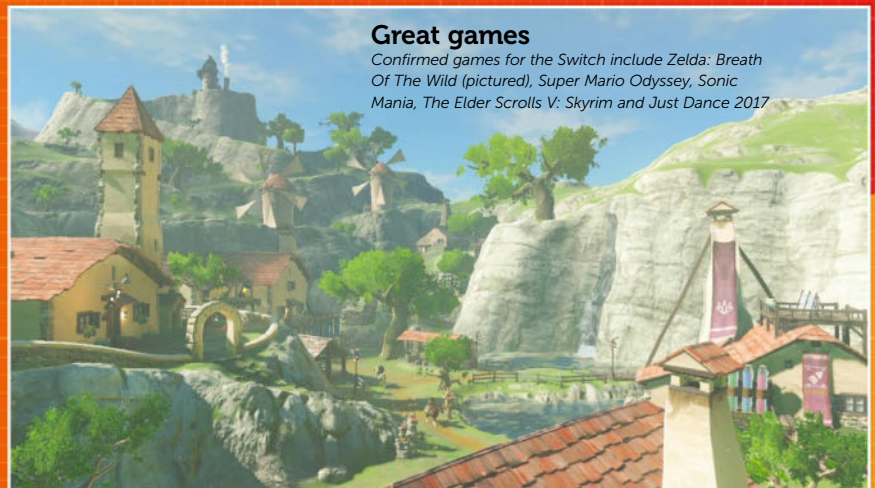
## Transforming controller

The tiny controllers have a lot built into them: HD rumble, motion controls and NFC, IR motion camera. Up to eight can be connected to one console at a time



## Great games

Confirmed games for the Switch include *Zelda: Breath Of The Wild* (pictured), *Super Mario Odyssey*, *Sonic Mania*, *The Elder Scrolls V: Skyrim* and *Just Dance 2017*



## Limited battery

The Switch's battery will last around six hours on a single charge, depending on what game you are playing. It will take three hours to fully charge the device, however



# MICROSOFT'S MAC KILLER

Macs used to be seen as the must-have device for creative people, be it for art or videos but now desktop PCs are slowly making their way into the field and Microsoft are hoping to capitalise on this. The Surface Studio has a display that can be adjusted to suit you. Need it for drawing? Place it at an angle. Want to watch a movie? Position it standing upright. The base model Studio has an Intel i5 processor, 1TB of storage space and 8GB of RAM. The surface pen makes writing and drawing as close to working on paper as possible and the Dial can be used to navigate through menus without having to move your hand around the screen. But when you need to unwind, with its Nvidia GeForce 965M graphics card it can be used for gaming, a perfect way of blowing off steam after a hard day's work.

**Microsoft Surface Studio**  
£2,400 | \$3,000 | [microsoft.com](http://microsoft.com)

## Smart tools

*The Surface Pen and Dial are going to change the way people interact with touchscreens when working, fast-forwarding when video editing and changing colours when drawing can be done easier.*

## Ultra HD display

*The 28-inch touchscreen has a resolution of 4500 x 3000 (192DPI), it's so large that it can display word documents at a 1:1 scale*

## Work and play

*The Surface Studio has an Nvidia GeForce graphics card that is great for running professional design software like Adobe Creative Cloud as well as hardcore PC gaming*



# SURROUND YOUR EARS IN HD AUDIO

Unfortunately, wireless headphones can lose some of the original sound when receiving a signal – the quality is not as reliable as good old wires. Audio Technica's ATH-DSR9BT is hoping to combat this trend, using its new Pure Digital Drive system that ensures there is no dip in quality when used wirelessly. Its 45mm drivers can play HD audio when connected via USB or CD quality when played wirelessly over aptX. The cans have 15 hours of battery life, a microphone and touch controls for answering phone calls whilst connected to a smartphone.

**Audio Technica ATH-DSR9BT** | £500 | \$550 | [audio-technica.com](http://audio-technica.com)



# THE ONLY REMOTE YOU'LL NEED

Sevenhugs' new remote eliminates the need for juggling remotes or scrolling through apps to control the smart devices in your home. Capable of controlling any device that communicates via Wi-Fi, Bluetooth or infrared, you only need to point the remote in the right direction and its touchscreen will display the appropriate controls. For instance, point it at your TV to change channel, at a light to adjust brightness (pictured), or at your front door to order an Uber ride. The Smart Remote by Sevenhugs goes on sale this summer.

**Smart Remote by Sevenhugs** | £330 | \$300 | [remote.sevenhugs.com](http://remote.sevenhugs.com)





## CONNECT YOUR HI-FI TO THE WI-FI

Chromecast Audio breathes new life into your home hi-fi system. Simply plug this Google-made dongle into your old speaker's 3.5mm jack, RCA or optical input and you can connect it to the internet in seconds. This means you can then start streaming music from Spotify, Google Play Music or even BBC iPlayer Radio via your phone or computer. By using a couple Chromecasts, you can also group them together to create your own makeshift multi-room set-up.

**Chromecast Audio** | £30 | \$40 | [google.com/chromecast](http://google.com/chromecast)

## HARDCORE 4K GAMING

For the best quality of graphics and sound, Lenovo had packed its Legion laptop with a 15.6-inch 4K display, an i7 processor, a Nvidia GeForce GTX 1060 graphics card and 16GB of RAM. The Legion is the first PC with Dolby Atmos for the best audio experience over headphones with 3D sound. All of this means that the Legion 720 is VR ready. For using at night, and a bit of extra, wow, the Legion has a multicoloured, adjustable backlit keyboard.

**Lenovo Legion 720** | £1,100 | \$1,400 | [lenovo.com](http://lenovo.com)



# PUTTING PEN TO AUGMENTED PAPER

When it comes to writing, nothing beats good old-fashioned pen and paper. No matter how good technology gets, writing on a digital screen will never feel the same. Well with Montblanc Augmented Paper you can write by hand onto a piece of paper and press a button to send it to a smartphone or tablet and then convert your handwritten notes into digital text. When transferred to the Montblanc Hub app notes can be edited, emailed or you use the Split feature. By pressing the Split button a slider will appear and when moved the writing or drawing you made on paper will be erased stroke by stroke as it was originally made, sliding it the other way will make the marks reappear. Pressing the Split button again when the slider has been moved will then save the notes as a brand-new document.

**Montblanc Augmented Paper**  
£530 | \$680 | [montblanc.com](http://montblanc.com)

### What's in the box?

The paper comes in a leather notebook, which can store up to 100 pages before having to transfer them over to smartphone or tablet. A Skywalker pen is also included

### Handwritten to digital

The Montblanc Hub app is able to translate handwritten notes into digital text and can recognise 15 languages including English, German, Chinese and Russian



### Battery life

The battery lasts eight hours of continuous use. To charge the device, plug a USB into the side of the device. If the notebook has no power then it can't record any notes



## CUSTOMISE YOUR... SMART SHOWER!?

The U is made of two parts, the control panel and its digital shower valve. With its companion app, you can start the shower from your smartphone as well as choose the temperature and set timers. Are you tired of waiting for the shower to get to the right temperature? Well, the U can heat up the water and notify you via smartphone when it is at your preferred temperature and hold it back until you enter the shower so no water is wasted.

U By Moen Shower | £975 | \$1,225 | [moen.com](http://moen.com)



## GREAT FOR GETTING INTO PHOTOGRAPHY

For your first DSLR camera you want something that is simple enough to get to grips with, but also offers a lot of options to experiment with. The D3400 has a 24.2MP sensor and ISO range of 100 to 25600 so taking photos even in low-light situations is possible. For those of you who are itching to get your snaps onto social media straight away, the D3400 syncs photos to your smart device via Bluetooth as you take them so it's quicker to post online.

Nikon D3400 | £390 | \$500 | [nikon.com](http://nikon.com)



## SEE WHO'S AT YOUR FRONT DOOR WITHOUT GETTING UP

This easy-to-install camera can keep an eye on your front door when you're away from the house. If you're waiting on an important parcel whilst you are away, you can be alerted on your smartphone when someone is detected and with the built-in microphone and speaker you can communicate with the person. The camera has a 130-degree angle view and streams 1080p video, allowing you to keep a watchful eye on your home 24 hours a day.

Nest Cam Outdoor | £180 | \$200 | [nest.com](http://nest.com)



## THE ULTIMATE ENTERTAINMENT PHONE

The first phone to have both built-in Google Tango and Daydream, the Zenfone AR has three cameras on the back. One camera for motion tracking, one for depth and the other has a 23MP sensor, these allow it to offer the best AR experience on a smartphone yet. The phone has a 5.7-inch Super AMOLED screen with a resolution of 2560 x 1440 (515ppi) and as for audio, the Zenfone AR supports high-resolution audio and 7.1 virtual surround sound. Zenfone AR TBC | [asus.com](http://asus.com)







## THE AFFORDABLE HI-RES AUDIO PLAYER

High-resolution MP3 players are slowly lowering in price and Sony is leading this trend with their current mode, the MW-A35 which launched at under £200. It has an impressive battery life of 45 hours and 16GB of memory that can be expanded to 192GB with a microSD card. It has a 3.1-inch touchscreen interface but there are also buttons on the side so you can choose the input method you prefer. To fully enjoy the music, the MW-A35 comes with a pair of noise-cancelling earphones, so you can fully immerse yourself in your own tunes.

Sony Walkman NW-A35 | £180 | \$240 | [sony.com](http://sony.com)



## THE GAMERS' STREAM MACHINE

An all-in-one streaming machine, the Nvidia Shield can play Movies and shows in 4K HDR, but it can also stream the latest PC games to your TV. Both the controller and gamepad have a microphone built in for Google Voice Search so all you have to do is ask for what you want. In a future update the Nvidia Shield will also work as a Google Assistant device, allowing you to control smart devices such as Lighting and Nest through your Shield, using just your voice.

Nvidia Shield | £190 | \$200 | [nvidia.com](http://nvidia.com)



## VIRGIN'S 4K HDR POWERHOUSE

Record up to six shows at once onto the V6's 1TB of storage space whilst watching another broadcast or content via an app, such as Netflix, which can stream in 4K through the V6 box. With the Virgin TV Anywhere app you can watch your recordings on a smartphone or tablet over Wi-Fi or use the app as a remote for your TV. What if you see a show you like and want more of it? Using the Series Link+ the V6 box will search live TV and on-demand services for any more episodes and put them all of them into one folder for you.

Virgin V6 | From £55 a month | \$N/A | [virginmedia.com](http://virginmedia.com)

## THE MOST FEATURE-FILLED GOPRO YET

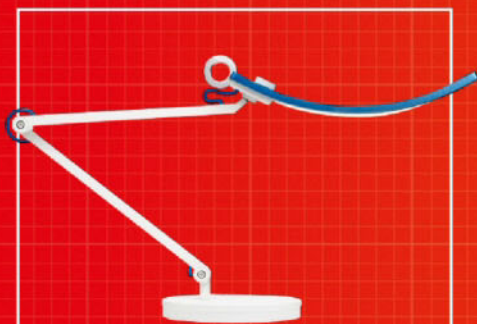
Capture your adventures or make your morning bike ride a bit safer with a GoPro attached to your head. The Hero 5 adds housing that makes it waterproof up to 33 feet, it shoots 4k video and 12MP photos, can be voice controlled and has a two-inch touch screen that lets you preview shots and trim footage.

Hero5 Black | £350 | \$400 | [gopro.com](http://gopro.com)



**"It shoots 4k video and 12mp photos"**





## A LAMP MADE FOR E-READING

Designed for computer desks, the Curve of the WiT-E allows it to cover a 150 per cent wider space than your typical lamp. By double-tapping on a ring it will measure the light in the room and alter the light it emits to reduce glare on any screen.

WiT-E | £170 | \$215 | [benq.com](http://benq.com)



## A PREMIUM PARTY-STARTER

This premium speaker has a wide selection of connections: Bluetooth/aptX, USB, Airplay and more. The cabinet is made from aluminium-covered wood to give it a weighty, high-quality feel that adds to its superb sound. If you aren't a fan of the front panel, replacements are sold separately.

Naim Mu-So

£895 | \$1,500 | [naimaudio.com](http://naimaudio.com)

## TRACK YOURSELF ALL DAY EVERY DAY

The Whoop fitness tracker is designed to track all your statistics and keep you away from injuries, whilst meeting your fitness goals. The tracker monitors your vitals 24 hours a day, and lets you know if you need to be more active or need a bit rest more. It has a slide-on battery so you can charge the device without ever needing to remove it from your wrist.

Whoop Tracker  
£395 | \$500  
[whoop.com](http://whoop.com)



## VR-READY 4K HOME CONSOLE

Buying a PlayStation 4 and PlayStation VR headset is still the cheapest way to get triple-A VR games beamed directly into your eyeballs. If you haven't got into this console generation yet, the PS4 Pro is a good option if already own an up-to-scratch, 4K television, as the console supports 4K and HDR. If you don't have such a TV, you'll want one to get the most from this console. If you already have a PS4 and fancy an upgrade, data from your old PS4 can be transferred to the new one via Ethernet cable.

PlayStation 4 Pro | £350 | \$400 | [playstation.com](http://playstation.com)



## FOLDABLE AND FRIENDLY TO FLY

The Mavic Pro has an impressive 27 minutes of flight time, more than other drones in its price range and the drone is also smaller than most of its competitors, being no bigger than a water bottle. While it may have 'Pro' in the name, the Mavic is extremely beginner-friendly thanks to its satellite-assisted hovering and obstacle avoidance. The provided controller will fit most smartphones and its follow me features make shooting videos or photos simple.

DJI Mavic Pro | £1,100 | \$1,000 | [dji.com](http://dji.com)







## TABLET FOR ALL THE FAMILY

When looking for a tablet that children can use, you want something that's relatively cheap and has features to keep them safe on the internet. Fire, for kids, has a child-friendly interface, parents can choose what books and games they can't access and set time limits for certain features. Fire users have unlimited free cloud storage on any photos taken with the tablet as well as any content purchased through Amazon, but if you want to keep content on the device itself it supports up to 200GB in microSD cards.

**Amazon Fire 8 Tablet | £100 | \$90 | [amazon.com](http://amazon.com)**



## THE RIFT ISN'T OUT OF TOUCH

The biggest problem with the Oculus Rift, outside of Lucky Palmer's antics, was the lack of motion controllers, but the company has fixed that with the release of the Oculus Touch. The controllers doesn't just track your hand's positioning it also tracks your fingers, so pushing buttons can come down to holding out a single finger rather than a button on the controller or saying yes can be done with a thumbs up. If you already have the Rift you can buy the Touch separately for £190/\$200.

**Oculus Rift + Touch | £690 | \$790 | [oculus.com](http://oculus.com)**



## STREAM MUSIC AROUND YOUR WHOLE HOUSE

Yamaha's wireless audio network uses an app to stream music to one or multiple speakers around your home. MusicCast is enabled in a variety of Yamaha products, and with the MusicCast Trio pack you get three different speakers, each with their own purpose: a soundbar, standard wireless speaker and a bedside speaker.

**Yamaha MusicCast Duo  
£700 | \$880 | [yamaha.com](http://yamaha.com)**



## THE MOST VERSATILE GRILL YET

The Evolve comes with five cooking plates: two for grilling, two for omelettes/pancakes and a deep pan for pizzas, stews or baking. Each plate has a non-stick coating and is dishwasher safe.

**George Foreman Evolve  
£160 | \$140 | [georgeforemancooking.com](http://georgeforemancooking.com)**

## A SMART TV WITH SMARTER FEATURES

As you would expect from a high-end TV, this is capable of displaying in 4K and HDR. It has apps for streaming services. But what sets it out from others is its Ambilight feature. The Philips has coloured LEDs in the back that emit light onto the surrounding walls to add to the viewing experience.

**Philips 65PUS7601  
£2,400 | \$2,990 | [philips.com](http://philips.com)**





# I WANT TO RIDE MY (COMPACT) BICYCLE

Tern Bicycles claims that the Vektron is the most compact electric bike ever made – when folded, it can fit in a bus or train or, if you cycle to work, it can also easily fit under your desk. The bike has a compact control panel that displays information such as speed and battery level and can be used to switch between riding modes. Underneath the Vektron's saddle is padded and designed to make carrying it whilst on a shoulder or by hand more comfortable. At the back of the bike is a cargo rack to place a basket or child's seat. But it's not just about convenience, the Vektron has been designed for performance as well. It uses a Bosh electric motor to reach speeds of up to 20mph and the battery takes 3.5 hours to fully charge.

**Vektron | £2,980 | \$3,400 | [ternbicycles.com](http://ternbicycles.com)**

## On and under the saddle

*Underneath the saddle is padding to make carrying the Vektron on a shoulder more comfortable, handy for when you need to carry it onto a train or up stairs*

## A bright idea

*The 41-lux Valo LED light has channels for the sides that light up when the bike stops and it has a mirror inside that reflects light at a wide angle*

## The tires

*With safety in mind, each tyre has a Kevlar belt to keep them protected and a reflective stripe so you are visible*



## EVEN COOKING CAN BE DONE FROM YOUR SMARTPHONE

Cook a variety of meals without touching a button, using Tefal's app you can make all kinds of dishes inside its 1.7kg container from starters, main courses or desserts. The app helps make the cooking process simpler with ingredient lists, user comments and easy-to-follow recipes. Once the ingredients are in and the Actifry has started, you can enjoy some free time and when the meal is ready you will receive a notification on your smartphone.

**Tefal Actifry Smart XL | £300 | \$375 | [tefal.com](http://tefal.com)**



## ENJOY HD AUDIO ON ANY DEVICE

The Audioquest Dragonfly is around the size of a USB memory stick and plugs into any laptop, or with an adaptor cable, your smartphone or tablet and turn them into HD audio players. The Red version of the Dragonfly has a more powerful amp and digital to analogue converter than its Black counterpart and has a 'bit-perfect' digital volume control that ensures no audio quality is lost at any volume level.

**Audioquest Dragonfly Red | £170 | \$200 | [audioquest.com](http://audioquest.com)**





## CAMERA FOR THE INSTAGRAM GENERATION

Trying to justify buying a camera when smartphones have similar technology can be tough, but the Polaroid Snap has included little touches to make taking and printing photos fun. Next to the flash is a mirror, to help when taking selfies, and it has three colour modes including a vintage filters and emojis can be added via the 3.5 touchscreen on the back of the camera. These effects can be included on the two-by-three inch prints dispensed by the camera. **Polaroid Snap Touch** | £160 | \$180 | [polaroid.com](http://polaroid.com)



## SAVE MONEY WITH YOUR SMART HOME

Leaving your house with the heating on is no longer a concern as you can turn it on or off from your smartphone. Set your hot water times as well as heating schedules with the Hive app and, using your phone's location, it can detect when you're close to home. It will notify you of the home's temperature and ask if you want to turn the heating on. While professional installation is required it is, thankfully, included in the price. **Hive Activ Heating** | £250 | \$N/A | [hivehome.com](http://hivehome.com)



## AN ACTUAL iPHONE KILLER

While it lacks the iPhone 7 and Samsung Galaxy S7's waterproofing, there's no denying the Google Pixel is one of the best smartphones of the year. Google's first non-Nexus entry into the phone market has really stepped it up a notch with a superior camera that's great for video, speedy performance, a battery that lasts all day, and beautiful build. What's more, it's 'really blue' design has just landed in the UK through EE and Carphone Warehouse.

**Google Pixel** | £600 | \$700 | [madeby.google.com](http://madeby.google.com)

## A WATCH FOR JETSETTERS

Even on its own Casio's Edifice is a pretty cool-looking watch that displays two time zones at once, but when connected to a smartphone it gets access to a bunch of cool features. By going to the companion app and holding the Bluetooth button, the watch will communicate with your smartphone, find out what time zone you are in and adjust its dials to the correct time. It'll even help you if you've lost your smartphone: press the 'Find Phone' button on the watch and your phone will emit a noise to help you locate it.

**Casio Edifice EQB-500DB-2AER** | £325 | \$410 | [casio.com](http://casio.com)



## TEAC A GOOD LISTEN

The vinyl trend isn't going away anytime soon, the experience of opening the sleeve, putting the record down and placing the needle is something you can't get on any other music format. Teac's record player has a minimalist but classy design and comes in a wood or matte red finish. **Teac TN-400s** | £360 | \$450 | [teac.com](http://teac.com)





## RETRO STYLE, MODERN COFFEE

Coffee is personal, we each like it a slightly different way. With the ECF01 you can make the cup that's just right for you, just hold the coffee button until you have the amount in your cup that you want, the Smeg remembers the amount then next time with a single press it will pour the same volume.

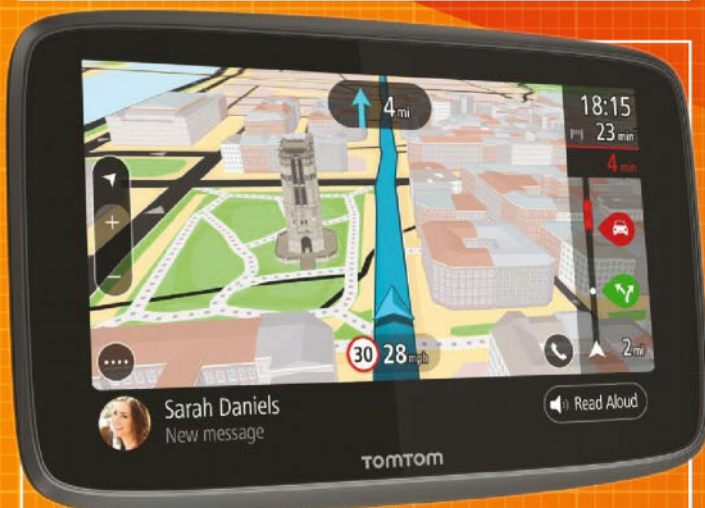
Smeg ECF01 | £280 | \$350 | [smeguk.com](http://smeguk.com)



## WEAR THIS IN AND OUT OF THE GYM

Why have just a fitness tracker when you can have one that's also a cool timepiece. It has changeable straps so you can have one for working out and another for formal events. The Fenix 5 monitors how hard your training and advises how to best improve your workouts and how much rest you need.

Garmin Fenix 5 | £500 | \$700 | [garmin.com](http://garmin.com)



## MORE THAN JUST A SAT-NAV

Smartphone's can make good satnavs but they can also be a little distracting, so it's better to have a dedicated device for when you need it. The TomTom 6200 allows you to communicate to your phone's voice assistant via the satnav, if your phone is connected via Bluetooth, and with the MyDrive feature, via TomTom's app, you can plan your routes on your smartphone and they'll be ready on your Satnav when you get to the car.

TomTom Go 6200 | £340 | \$N/A | [tomtom.com](http://tomtom.com)

## BEST OF BOTH WORLDS

A lot of people have a laptop and a tablet, so why not have a device that can be both? The base model of the Yoga 910 has a 13.9-inch 4K display, Intel i5 processor, Windows 10, 15 hours of battery life and a 256GB SSD hard drive for faster loading times. So it's powerful as well as convenient. Next to the keyboard is a fingerprint reader that can be used to access the laptop without a password or confirm purchases.

Lenovo Yoga 910 | £1,300 | \$1,200 | [lenovo.com](http://lenovo.com)







## THE TEA-LOVER'S KETTLE

Different teas need different brewing times and it's hard to get it right with your typical kettle. Despite being called a smart kettle, the Sage doesn't have a companion app, instead the kettle has five buttons, each heats the water to a different temperature between 80-100 Celcius.

**Sage Smart Kettle | £130 | \$N/A | [sageappliances.co.uk](http://sageappliances.co.uk)**



## GET WELL-ROUNDED SOUND

The cylindrical design allows the speaker to fill the room with sound, with a mid-range driver and three tweeters around the outside as well as a five-inch sub at the bottom. You don't want the Beoplay projecting sound in 360 degrees when you are placing it in the corner, so in the app you can change the EQ depending on where the speaker is placed in the room so you get the best sound from it.

**Beoplay M5 | £530 | \$600 | [beoplay.com](http://beoplay.com)**



## 120-INCH SCREEN IN YOUR HAND

Want to carry a big screen wherever you go? The Rif6 is made to work with all your other portable devices and it's packaged with most of the cables you will need to connect it to your laptop or android devices (Apple devices require an MHL to lightning cable). The two-inch cube also comes with a flexible tripod so you can project onto the ceiling, lie down and enjoy a movie, as long as it doesn't last longer than the 90 minutes battery limit.

**Rif6 Cube | £300 | \$300 | [rif6.com](http://rif6.com)**



## CONTROL YOUR CAMERA WITH A TAP OF AN APP

The Unleashed plugs into your DSLR camera and, from the companion app, you can change the camera's settings from aperture to shutter speed, take photos from the app or shoot time-lapse videos. For those who can't navigate the menus of the camera, the Unleashed app offers a more simple interface.

**FoolographyUnleashed | £170 | \$215 | [foolography.com](http://foolography.com)**

## EARBUDS WITH NO STRINGS ATTACHED

Many laughed at the AirPods when Apple originally announced them but more and more companies are trying to copy and improve on the idea of truly wireless earbuds.

Earin M2 has a portable charging case, 12 hours of battery life, touch controls and a microphone to answer calls.

**Earin M2  
TBC | [earin.com](http://earin.com)**





042 | FIVE STAR 50

# TOP 5 GADGETS

## The Pi Camera

The latest version of the Pi Zero includes a connection for the Pi Camera Module, the 8mp sensor can shoot 1080 video at 30fps and is available for £21

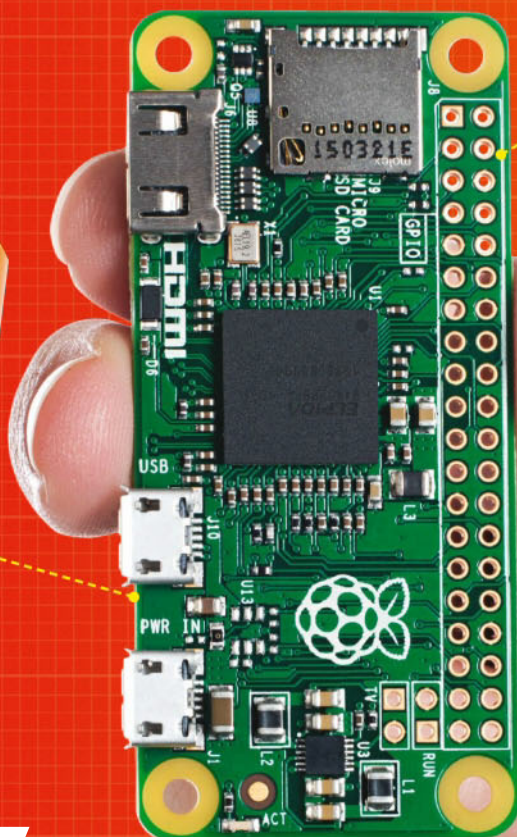


## So many possibilities

Media hub, retro games machine, desktop PC, flying drones, camera and digital calendar are just a few of the ways people have used the Raspberry Pi Zero

## Kit it out

Although it doesn't come with LAN or Wi-Fi built into it, there are kits you can buy with the Pi Zero that includes it and other accessories for a reasonable price



# YES, THE PI GOT SMALLER

Just when you thought the Raspberry Pi couldn't get any smaller, the Zero comes along to show that it can. At 65 x 30 x 5mm it is half the size of the Raspberry Pi Model A+ but it isn't completely bare-bones – it still has a microSD slot, a Mini-HDMI port, a Micro USB slot, CSI camera port and the CPU runs 40 percent faster than the original Raspberry Pi. It is missing Bluetooth and LAN support but these can be added by you if needed. So what do you do with the Raspberry Pi? You decide. It's a tool for those learning to program and people have come up with creative uses for it such as a digital picture frame, automated pet feeder or using the Pi Zero along with the camera module you can build your own security camera.

One of the most common uses we see people using the Pi for is building their own retro gaming machines, even going as far as building their own mini arcade cabinets to put the Raspberry Pi inside. If you're unsure of how to make these, there are plenty of books and guides online to help you with getting started.  
Raspberry Pi Zero | £5 | \$5 | [raspberrypi.org](http://raspberrypi.org)

## "What do you do with the Raspberry Pi? You decide"



# FOR UNDER £50



## GAMING NOSTALGIA IN A MINI BOX

With 30 of the best games from the Eighties bundled into a device, the NES Mini is a must-have for any retro fan. The console can display games in three modes including a 'Pixel Perfect' mode or CRT, which displays the game like it was on an old-school TV. If you try to buy a NES console and all the games it will cost over £700, so if you can find a NES Mini we suggest you pick it up.

Nintendo Classic Mini: NES | £50 | \$60 | [nintendo.com](http://nintendo.com)



## KEEP A DIGITAL EYE ON THE ROAD

For £50 you have a device that films in HD, has a 120-degree wide angle view and can save you money in the long run and adds a bit of peace of mind to your daily commutes. Some insurers are willing to lower their price by 10 per cent if you have a dashcam installed in your vehicle and if the camera's footage can prove that an accident wasn't your fault you can keep your no claims bonus.

Nextbase 112 Dash Cam | £50 | \$65 | [nextbase.co.uk](http://nextbase.co.uk)



## PORTABLE POWER TO THE PEOPLE

The Iceworks portable charger has been designed to be convenient in both size and use, and isn't that all you need in a power bank? It's roughly the size of a smartphone, and at 8mm thick it wouldn't be hard to have it in your pocket whilst charging your phone. It has a Micro USB and lightning cable built into it to save space and remove the possibility of them every getting lost.

Iceworks 5000mAh Portable Charger  
£50 | \$60 | [iceworksglobal.com](http://iceworksglobal.com)



## ENJOY FOAM FUN ON A BUDGET

We at Gadget are fond of Nerf blasters and while there are a load of them that have cool gimmicks, there's nothing wrong with a classic rifle. Part of Nerf Accustrike series, it may only fire one dart at a time but it's designed to be one of the most accurate guns. The easy-to-load barrel holds five Accustrike darts which as the name suggests are more accurate than the standard darts you get with other Nerf guns.

Nerf Accustrike Alphahawk | £35 | \$45 | [nerf.hasbro.com](http://nerf.hasbro.com)



# REBOOT YOUR RUN

## The best gadgets for hitting the trails, tracks and treadmills

Nowadays, there's so much tech designed with runners in mind, it can be hard to figure out what you really need to have in your kit bag. You don't want to invest in a fitness tracker that will be obsolete in a few months and you need to ensure it measures the data that you're interested in, otherwise you will need to strap on another sensor. The last thing you need when you're on the open road is to be carrying all kinds of stuff that doesn't add anything to your performance except extra weight.

To help you out, whether you run religiously every day or struggle to keep up a regular routine and need an excuse to pound the pavement, we've collected together our top tech recommendations to help you look, feel and perform better.

From trackers built for budding triathletes and shoes designed for slippery trails through to voice-activated glasses to keep your eyes shielded from the sun and tops to help you recover faster, this is the best gear designed to achieve your goals, stay injury-free and reboot your runs whether you're hopping through trails, sprinting round a track or hitting the treadmill at your local gym.



### MOT your running style

Before you upgrade your running with the help of tech, it's important to master your technique. We asked fitness and biomechanics coach Phil Robertson, who works with more than 1,000 London

Marathon charity runners every year, to give us his scientifically-proven top tips for ensuring you stay safe, avoid injury and run efficiently...





### Book a race

This will give you a goal and a focus to train to. Create a training plan to get organised and accountable

### Always stay hydrated

Day to day, aim for a water intake of 28ml multiplied by bodyweight in kg. During runs you need to be increasing consumption to 400-600ml per hour

### Focus in front

Look ahead naturally and not directly at the floor. This will help keep your neck and back in a better alignment

### Correct your posture

Run tall as if you were controlled by a puppeteer's string. Keep your shoulders back and avoid leaning from your hips

### Fuel your body

If you are exercising longer than 60-90 minutes then aim to get 50-70g of simple carbohydrates in you every hour

### Position your elbows

Arm swing can help with running technique. Keep your elbows bent at 90 degrees, relax shoulders and concentrate on 'driving' elbows back

### Build your muscles

Focus on legs, glutes and core muscles. This will stabilise your hips and will make your running more efficient, improve performance, and help keep injuries at bay

### Calculate your cadence

Start counting your steps per minute. Ideally, a minimum cadence of 170 is ideal for reducing injuries and improving performance

### Find your footwear

The right footwear to support your individual biomechanics, running technique, conditions and distances you'll be running in, is essential

### Watch your landing

A lot of new runners tend to 'overreach' on their stride. Aim to land directly under your body, which will help your running form





# PICKING THE RIGHT TRACKER

Over the past few years, fitness tracking tech has come on in leaps and bounds. No longer do these wearable gadgets serve up pointless data about how many steps you managed to walk off in a day or how many flights of stairs you climbed. Snooze.

Now, packed with a bevy of sensors, they can tell you everything from your exact location via GPS, your resting heart-rate with an optical heart-monitoring sensor or how you should best recover by analysing all of that data and using best-in-class algorithms to make sense of it. What's more, there are all kinds of devices hitting the market built especially with runners in mind, whether you're just getting started, enjoy marathons or you're a seasoned triathlete.

## DID YOU KNOW?

Spending 90 minutes just walking outside (let alone running) can reduce negative thoughts, say researchers from Stanford University.

## SETTING UP YOUR TRACKER

### 01 Add your details

Filling in data about you, your habits and how you'll use your tracker will serve up the best estimations and results in the long run.

### 02 Set your goals

Many trackers set default goals, but don't be afraid to go and change them based on your personal preferences and performance.

### 03 Comfort is key

There's nothing worse than feeling uncomfortable on a run. Test your tech to make sure straps fit and you're wearing it in the right place.

### 04 Sync your data

Get to know how your gadget syncs up to its accompanying app and whether you need to tap it, prompt it or just leave it to it.

### 05 Find your tribe

Either use the accompanying app or sign up to one like Strava or RunKeeper that syncs your data and lets you compete with friends.





# TRACKERS FOR TOTAL BEGINNERS

## Stay motivated

A device built to track a range of workouts, including running, swimming and even boxing. Fitted with a range of sensors, it can track your intensity, pace and form. But what makes it special is its real-time coaching, which is provided via audio feedback and enhance your performance and avoid injury.

### Moov Now

£50 | \$60 | [moov.cc](http://moov.cc)



### No charging needed

Powered by a replaceable battery that lasts up to six months means you'll never be caught out and won't have to rely on charging up the device

### Workout-proof

Created with all kinds of exercise in mind, it's both waterproof and dustproof so you can wear it out on the sweatiest, rainiest runs or even to the pool after

## Best all-rounder

The Charge 2 keeps tabs on your heart-rate training zones, measures your outdoor runs with the aid of GPS and paints an accurate picture of your overall cardio fitness level. With a range of interchangeable bands it's also a great option if you like to match your gadgets to your running gear.

### Fitbit Charge 2

£130 | \$150 | [fitbit.com](http://fitbit.com)



### Tracks your sleep

Even the best runners can't perform well on little sleep, keep tabs on what triggers sleepless nights

### Guided breathing sessions

Whether it's to de-stress before a run or recover after, breathing exercises are designed to leave you feeling and performing your best

## Follow your heart

An activity tracker that keeps tabs on the distance, time and pacing of your outdoor runs with the help of its GPS smarts. The Vivosmart is ideal for those keen to find out more about their heart-rate and training zones as it comes with best-in-class heart-rate monitoring tech built into the device.

### Garmin Vivosmart HR+

£200 | \$150 | [garmin.com](http://garmin.com)



### On-board notifications

Keep connected while you run with a huge range of smart notifications from your wrist, including social media, call, text and many more

### Automatic exercise tracking

A feature called Move IQ can automatically tell the difference between activities, whether you're running, walking, cycling or swimming

# TRACKERS FOR VETERAN RUNNERS

## Triathlete's choice

An advanced multi-sport watch built with budding triathletes in mind. It provides highly-accurate heart-rate monitoring from your wrist, which lets you see your heart-rate zone and beats per minute in real-time, as well as smart training metrics, like stride length and ground contact time balance.

### Garmin Forerunner 735XT

£400 | \$450 | [garmin.com](http://garmin.com)



### All day tracking

It's built for a range of sports, but will keep tabs on your heart-rate, steps and even serve up notifications when you're not working out

### Powerful battery life

With so much on board you'd be forgiven for thinking this watch taps out quickly, but it'll last for up to 14 hours of GPS tracking

## Run free with GPS

The Spark 3 has everything that a serious runner needs, from heart-rate monitoring and multi-sport modes to music storage and long battery life. But it's the watch's GPS smarts that set it apart, with a route exploration mode so you don't get lost on trail runs.

### TomTom Spark 3

£220 | \$250 | [tomtom.com](http://tomtom.com)



### Over 500 songs

One of the few running watches with music streaming built-in, you don't need to rely on your phone to play more than 3GB of music

### Audio performance feedback

Learn to better pace yourself and get an idea of your training zones with the Spark 3's real-time in-ear training

## Get deeper analysis

Created for serious runners who aren't just interested in beating their personal best. The V800 serves up personalised training and tells you how long it'll take to recover between runs, as well as how your fitness levels are improving by analysing heart rate and heart-rate variability data.

### Polar V800

£390 | \$450 | [polar.com](http://polar.com)



### Running index score

Although a multi-sport watch, it pays particular attention to your running performance and shows how efficient your style is based on heart-rate and speed data

### Personal training plans

If you're training for a 5k, 10k, half-marathon or marathon, you can create your own training programme so you're confident come race day



# FIND YOUR IDEAL SHOE

## Designed for impact

The midsole is made from a web-like, 3D-printed material comprised of denser areas where your foot is likely to experience the most impact

## Super light design

The upper part of the shoe is made from Primeknit Technology, which is a light and flexible construction technique unique to Adidas

## Streamline designed heel

The heel counter inside the shoe is also 3D-printed and is designed to slot perfectly into it, meaning there's no glue or stitching to contend with

## 3D printed for your foot

These web-like running shoes are 3D printed for best performance, reducing the overall weight, while still providing support for your feet with a denser design in areas that take the most impact as you pound the pavement. They've already attracted a lot of fans, proving popular amongst athletes at last year's Rio Olympics, including Team GB heptathlete Jessica Ennis-Hill. However, these 3D Runners are only part of a limited series available from select stores in London, New York and Tokyo.

### Adidas 3D Runners

EN/A | \$340 | [news.adidas.com](http://news.adidas.com)



## Treadmill chasers

A super-light pair of running shoes, from running shoe aficionado Nike, that put comfort at the forefront of its design and give runners a springy feel as their feet strike the floor. An engineered mesh allows for some extra breathability on the tops of the shoes while cushioning provides a decent level of support underneath.

### Nike Air Zoom Pegasus 33

£100 | \$110 | [nike.com](http://nike.com)



## Best for trails

A cushioned, lightweight shoe packed with enough protection for technical trail running. They're water resistant to keep feet dry and comfortable with an anti-debris mesh upper to prevent dirt from trails making your run uncomfortable. A one-pull lace tightening feature means no faffing or chance of them getting in the way.

### Salomon Speedcross 4

£100 | \$130 | [salomon.com](http://salomon.com)

## YOUR RUNNING SHOE CHECKLIST

### 01 Know your feet

Get a full gait analysis done to find the right shoes. They need to give you support for your personal running style and address any inward and outward rolling of your foot as it hits the ground.

### 02 Consider your terrain

If you're running on a trail you'll need more support and if you prefer to pound the pavement you'll need more protection against impact but it often depends on your running style.

### 03 Learn to lace

You can then tailor your laces to accommodate your running style, with techniques designed to prevent heel slipping or give more comfort for those with high arches.



## Road runners

Road runners must have a comfortable and supportive shoe to prevent injury, and the Kinvara 7s are ideal for striking the concrete. The shoes have an Everun heel insert that ensures your foot is positioned correctly, as well as a Tri-flex outer sole for a smoother, more stable running experience.

### Saucony Kinvara 7

£100 | \$110 | [saucony.com](http://saucony.com)



## Marathon must-haves

A premium pair of running shoes that will see you through all kinds of terrains and races. But with its MetaClutch exoskeleton heel support, which ensures the best foot positioning and stability, and FlyteFoam lightweight midsole they're ideal for those who need a reliable pair of kicks.

### Asics Metarun

£200 | \$250 | [asics.com](http://asics.com)





**DID YOU KNOW?**

You should replace your running shoes. An average pair will last you somewhere between 300 miles and 500 miles after your first wear them.

## Real-time coaching sunglasses

The sunglasses and performance specialists at Oakley have teamed up with the tech experts at Intel to bring you a way to shield their eyes from the sun while delivering real-time, voice-activated coaching to your ears that's customised to you. The Radar Pace tracks your data, including heart-rate, speed, cadence, distance and time then coaches you and adjusts your training zones to enhance your performance and push you harder. Ideal for runners, but also built for those serious about cycling too.

**Oakley Radar Pace** £400 | \$450 | [oakley.com](http://oakley.com)

### Safe sun smarts

These super smart glasses also shield you from the sun by filtering out 100 per cent of all UVA, UVB, UVC and harmful blue light up to 400nm

### Protection against impact

In case of accidents, the Radar Pace is protected against high velocity and high mass impacts through durable materials

### Change your lenses

With interchangeable lenses, you can make sure you're getting the best performance for your environment. Try Prizm Road lens for the sharpest visual acuity

### Touch your temples

Touchpads allow you to control functions with simple swipes and taps. Like adjusting volume, taking calls from your phone and controlling music



## THE KIT YOU'LL CRAVE



### Heart-rate headphones

If you want to find out more about your running performance but you don't fancy a tracker or anything, these waterproof buds have a built-in heart-rate sensor, rep counter and real-time coaching that delivers stats and feedback directly to your ears. With a simple tap they can easily adapt to your environment, so you can have louder feedback and music at the gym but then stay more alert when you're running on the road.

**Jabra Elite Sport**  
£230 | \$250 | [jabra.com](http://jabra.com)



### Performance-enhancing tee

This tee is made with a four way stretch material, which gives you a compressive fit. The compression layer enhances performance in training, competing and recovery as it's designed to reduce the build up of lactic acid in the muscles. UPF 30+ protects your skin from the sun as you work out and a Moisture Transport System is designed to wick sweat and dry fast.

**Under Armour HeatGear Armour Long Sleeve Compression Tee**  
£30 | \$35 | [underarmour.co.uk](http://underarmour.co.uk)



### On-the-go hydration

A lightweight hydration vest that's ideal for trail running or races. Made from a comfortable mesh with a number of stretch pockets to store any extra items, there are no zips to mess around with. There are a number of straps to keep the vest secure and ensure that it doesn't affect your performance or balance as you run. It comes with two 500ml bottles but could carry a total of three litres of fluid or four litres of kit.

**Inov-8 Race Elite Hydration Pack**  
£60 | \$90 | [inov-8.com](http://inov-8.com)



050 | TWICE THE camera,  
HALF THE price

### Blue light filter

The Honor 6X includes a comfort mode that filters out blue light, perfect for if you are using your phone just before going to sleep

### Phase detection auto focus

The camera features 'phase detection auto focus' which means it can focus in only 0.3 seconds. The main 12-megapixel camera sensor is a cutting edge Sony IMX386 part

### Vertical dual-lens camera

The vertical dual-lens camera on the Honor 6X allows for an aperture range of F/0.95 – F/16 and has 1.25  $\mu$ m pixels. The aperture range allows for clever visual effects and post-shot focus adjustment

### Split-screen support

The Honor 6X helps you make the most of the large display with built-in split-screen support. There are other handy little software tricks, too, such as a one-handed mode with a reduced size UI

### NFC support

The UK version of the 6X includes NFC support for Android Pay, while devices in mainland Europe and the US do not. The hardware is present, but disabled in the software



£225 | \$250

hihonor.com

### Honor 6X

The phone's overall performance belies its price. The specs are impressive, so buying a mid-range device no longer means feeling like a second-class Android citizen.

### Choose your colour

The 6X is available in grey/black, silver/white or gold/white finishes. Previous Honor gold devices also had a gold front – the change makes for a smarter overall look

## AFFORDABLE HIGH SPECS

Although the Honor 6X comes in at a bargain price, it includes a number of features that are traditionally reserved for much more expensive devices. What does it do without? There's no 5 GHz Wi-Fi and the screen isn't coated with Gorilla Glass or similar. The port on the bottom is Micro USB, despite other Honor devices shifting towards the newer USB C standard.



# TWICE THE CAMERA, HALF THE PRICE

Honor delivers high-end performance and an accomplished camera phone on a budget

It's fair to say that Samsung pretty much has the Android flagship market sewn up. While competitors have fallen by the wayside, the S7 and S7 Edge command huge sales – at huge prices – providing Android's best hope of competing with the latest Apple iPhones. But what if you don't want to spend £500 on a device? What if you want to spend half that amount, but still have access to the majority of the features on Cupertino's finest? The Honor range just might be the answer. High-spec and high value is the Huawei subsidiary's bread and butter – its handsets offer unique features, great specs and great quality, all on a budget.

The latest Honor device, the 6X, follows in the footsteps of its predecessor and fixes the primary complaints with that device. It's true to the classic Honor formula, which means it has every chance of being a great device.

The last Honor release, the 5C, performed admirably, but cut one corner too many – the lack of a fingerprint sensor was particularly disappointing. Thankfully, there's no such issue here. The Honor brand is aimed at 'Digital Natives' – those of us who spend our lives on our phones. The brand has been marketed through non-traditional (digital) channels in the US and Europe, and as a result it has a much younger following than its Huawei parent – it's definitely the 'cooler' sub-brand, which is no bad thing.

This device's predecessor, the Honor 5X, looked at launch like it was going to be a smash hit. As the first device to be sold under the Honor brand in the US, it was significant in its use of the Snapdragon 616 processor rather than the expected homegrown Kirin CPU, but in practice this turned out to be ►

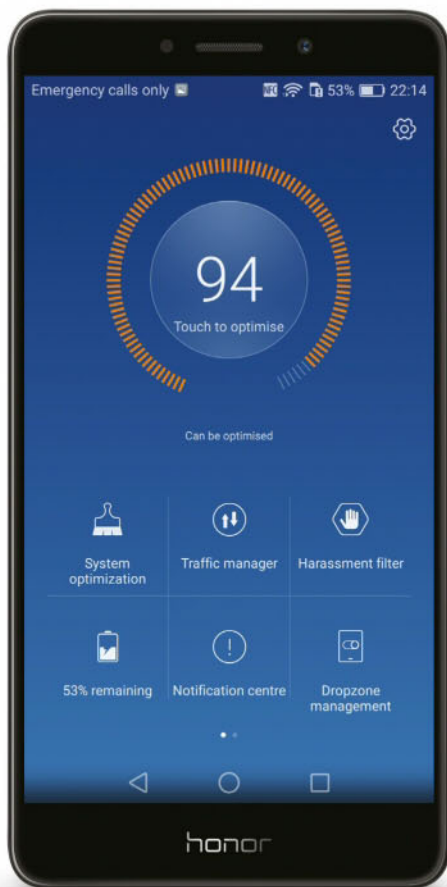
## TWO CAMERAS ARE BETTER THAN ONE

Do you fancy a bit of iPhone 7 Plus magic at a knockdown price? That's exactly what you get with the 6X. The phone features both a 12 megapixel primary camera and a two-megapixel secondary camera. The dual-camera setup allows the phone to apply very effective blur ('bokeh') effects to your images that really look very impressive. As with the Honor 8/Huawei P9, the secondary camera also improves the quality of an image particularly in low light,

although in reality we found that the lack of OIS (Optical Image Stabilisation) still means shots in darker situations can be blurred. That said, the Honor 6X camera is still capable. The stock camera app has a whole host of different modes, the Camera2 API is supported for full-featured, third-party apps there's also an eight-megapixel front camera for selfies – including a beauty mode if you need to smooth out those imperfections!







## WHY DOES THE 6X BATTERY LAST SO LONG?

One of our favourite things about the Honor 6X is the battery life – it just lasts and lasts. This is the result of a multi-pronged approach from Honor, common to many of the company's devices. First and foremost, the 6X uses a 3340mAh battery, which is larger than most of its peers. Despite this, the device isn't excessively chunky, at only 8.2mm thick. Of course, a big battery alone isn't enough – the 6X stamina is also assisted by 16nm chipset, which reduces both power usage and the energy that is lost as heat.

The love-it-or-hate-it EMUI software layer includes numerous software tweaks designed to improve battery life, including the ability to warn when applications are consuming excess power in the background. The Android Doze feature is of course included, which saves battery life when your device is not being used by effectively 'pausing' apps.

reproduction. As with its siblings, the Honor 6X uses on-screen buttons, with the bezel below the display proudly wearing the Honor logo. The bezels, in general, are well proportioned, the black 6X in particular is quite a looker.

The devices at the very top of the Android tree, the Google Pixel and Pixel XL feature a rear-mounted fingerprint scanner, a design choice that Honor has also employed when making the 6X. Unlocking the handset is accurate if not quite as fast as on the Pixel devices (or the Honor 8), but the location of the sensor, just below the dual cameras, falls naturally to the hand. The sensor also doubles as a configurable button which can be used to scroll or take selfies based on a swipe or a tap. It works very well.

Connectivity is provided in the form of 4G LTE on one SIM slot with 2G available in a second hybrid slot. A hybrid slot is one that can either be used for a second SIM card, or for a microSD card up to 128GB in size, should the provided 32GB storage not be sufficient. Bluetooth 4.1 is present as is 802.11b/g/n – one of the main notable omissions from the 6X is 5GHz Wi-Fi, which is a little disappointing. On the bottom of the device you'll spot a Micro USB port in lieu of the emerging USB C standard. At this point in time we can forgive this and in reality, many buyers will already have a host of Micro USB chargers and cables, so it might not be such a bad thing. A 3.5mm headphone jack is also present, so you won't need a crazy adaptor just to plug in your headphones. Phew!

One of the most polarising features of Honor or Huawei devices is the custom software overlay, EMUI. EMUI dispenses with many aspects of the stock Android experience such as the app drawer and heavily skins everything else. While unforgivable for Android purists, EMUI does have a large number of useful changes, including a raft of power management optimisations that help the 6X deliver seriously impressive battery life. Out of the box, the phone has Android 6.0 Marshmallow with EMUI 4.1, however a software update is imminent that will bump the OS to Android 7.0 with EMUI, which features a notification pull-down that is much closer to Google's vision. This tweak alone will satisfy most EMUI detractors.

You've probably guessed by now that we're fans of the 6X. With the great camera and well rounded spec sheet, Honor has a real recipe for success on its hands. While lacking a few of the features found at the very top end, the device is plenty good enough for all but the most demanding flagship fans. Our main disappointment being the lack of an oleophobic coating or Gorilla Glass with the screen, which leads to extreme fingerprints. Keep a cloth in your bag and you can go about your business safe in the knowledge you've snagged yet another Honor bargain. **G**

## "The 403 PPI display is impressively sharp with good colour"

► something of a negative – performance was disappointing. Since the 5X's release, however, Huawei has made a strategic shift and with the launch of the budget flagship Honor 8, introduced Kirin to America. The 6X dispenses with the Qualcomm part and instead packs a Kirin 655 – Huawei's latest, mid-tier 16nm processor. At the launch of this device and indeed the 5C, Honor talked a lot about the CPU, and with good reason. While discussing the fabrication process might bore the most dedicated of Android fans, the reality is that using such an efficient process yields clear benefits in performance, battery life and thermals (cool running) – a Kirin processor is certainly no longer a negative point as it was a few years ago. Add in a generous 3GB of RAM and it's no surprise that Honor's 6X handset runs impressively smoothly.

It wasn't long ago that metal unibody finishes were solely the domain of high-end HTC devices, but Honor has definitely got the process perfected now, too. The frosted metal curved back feels great in the hand with a subtle curve that helps disguise even further the impressively svelte 8.2mm body. The effect du jour at the moment is a thin bevel on the front with 2.5D glass curving to meet the edge of the device and this technique is employed on the 6X to great effect.

When you turn on the device, the first thing you'll notice is the 5.5-inch full-HD screen and, specifically, its brightness. With a maximum level of a near eye-searing 450 nits, you're likely to spend most of your time at a relatively low setting, which helps with battery life. As well as being bright, the 403 PPI display is impressively sharp with good colour



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# TRACK FITNESS THROUGH YOUR

## The fitness tracker that doesn't substitute style over function

There's no denying that the fitness tracker market is oversaturated, and it takes something unique to stand out from the crowd. For years, most will have chosen a tracker that's placed on wrist, usually sacrificing comfort in favour of functionality. Now that's all fine, but what if we told you that both of these things are possible, and in a product a quarter of the size you'd expect.

The Motiv Ring is a bold, new take on the classic fitness tracker formula, packing in the usual wireless tracking features into the small frame of a ring. Its size means you'll never need to take it off, and its modern look won't mean you'll be embarrassed wearing it to the gym either. From a technical standpoint, putting a fitness tracker on your finger makes a lot of sense. The usual issues of hair and tattoos impeding the band's heart rate monitor is a thing of the past.

When you then factor in the superb tracking app that comes with every Motiv Ring purchase, this could be the product to breathe new life into the fitness tracker market.

### Tough to the touch

*As with any tracker, you need something that will last a high-impact workout. The chassis of the ring is made from titanium, which is ideal for protection*



£160 | \$200

[mymotiv.com](http://mymotiv.com)

### Motiv Ring

*A full-featured fitness tracker that packs everything you need into the size of a standard ring. It boasts Bluetooth connectivity, LED lighting and a waterproof shell.*

### Tracking from all angles

*Thanks to a three-axis accelerometer on board, Motiv Ring is able to track any movement you make. This provides you with a more in-depth and precise report at the end of the day*



### Optical HR sensor

*A large portion of the Motiv's tracking prowess is done through its optical heart-rate sensor. It monitors both your resting heartbeat at night, as well as the levels you achieve during your workout*

### Wireless charging

*The inside of the ring includes a flat magnetic USB charging port, which connects to the keychain charger that ships with each ring. A single charge can last you up to five days, depending on usage*

### Recap your sleep

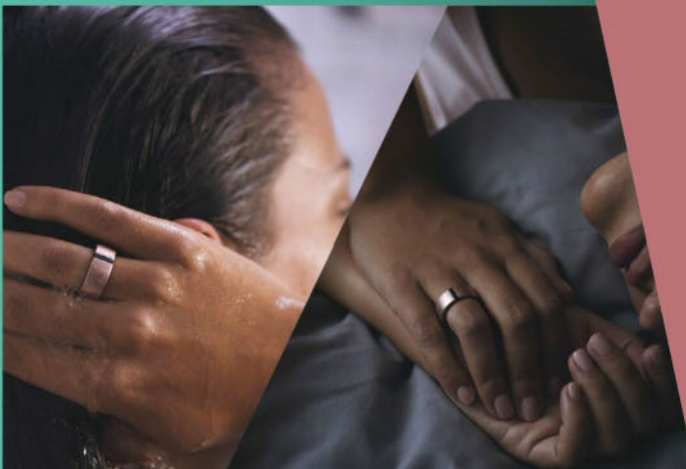
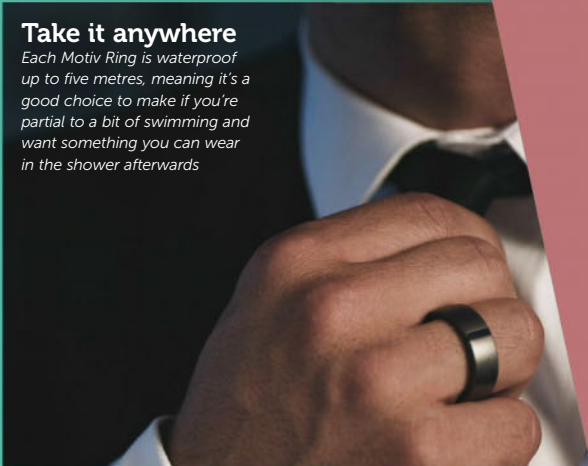
*By default, the ring tracks your sleep pattern, enabling you to pinpoint the times where you're most restless and provide tips and solutions on how to improve your sleep*



# WETTER

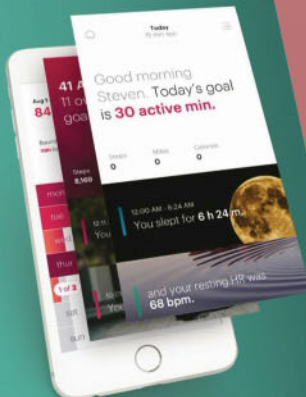
## Take it anywhere

Each Motiv Ring is waterproof up to five metres, meaning it's a good choice to make if you're partial to a bit of swimming and want something you can wear in the shower afterwards



## STAYING IN SYNC

Connecting to the accompanying Motiv app is done through the ring's Bluetooth functionality. Once the connection is established, the app comes into a world of its own. Through the app, users are given a rundown of each workout they perform, particularly highlighting both their heart-rate, the steps they've taken and the calories they've burned. At night, the app tracks your sleeping pattern, and, even more impressive, gives you reports on how your fitness levels are improving, or worsening, over a period of time.



## RESIST PUTTING TECH ON YOUR WRIST

### JABRA SPORT PULSE SPECIAL EDITION

Jabra's super smart earphones embed a heart-rate monitor at the base of each earbud, providing accurate readings during your workout, without skimping on the superb audio quality that they also offer. £130 | \$160 | [jabra.com](http://jabra.com)



### WITHINGS PULSE OX

This versatile fitness tracker can be placed in your pocket, or even attached onto your belt – alongside being worn on your wrist. The Pulse uses its LCD screen to update you on how long you've worked out for and the distance you've travelled. £80 | \$100 | [withings.com](http://withings.com)



### SPREE SMART CAP

The Smart Cap securely fastens around the circumference of your head, helping to provide it track your heart-rate with a small pocket tracker. It also tracks your body temperature, something unique to its patented system. £55 | \$65 | [spreewearables.com](http://spreewearables.com)



### DIGITSOLE WARM SERIES

As far as padded insoles go, Digitsole is up there with the best. Not only do the soles track your step count, but they also provide heating functions to keep your feet toasty at all times – which is handy in the cold damp and drizzle of British weather. £170 | \$220 | [digitsole.com](http://digitsole.com)





056 | THIS speaker offers  
ALL-ROUND SOUND

# THIS SPEAKER OFFERS ALL-ROUND SOUND

Bang & Olufsen thinks a 360-degree bass blast will make this your multi-room must-have

## Touch controls

By brushing your finger over the aluminium disc on the top of the M5 speaker, you can make subtle changes to the volume, while a quick tap will also pause your music

## Daisy chain design

Each speaker includes the Beolink Multiroom feature, which allows for multiple M5 units to be instantly connected to one another in different rooms through a stable Wi-Fi-based connection

## Sound optimisation

Through the accompanying Beoplay app, users can set where they've placed the M5. This in turn helps the speaker self-configure the sound requirements needed from that location

## Seamless connections

While many will choose to connect via Bluetooth, the M5 also has built-in Chromecast support, Spotify Connect and QPlay 2.0 functionality. Oh, and don't forget about Apple Airplay, either

£530 | \$600  
Beoplay.com

## B&O Beoplay M5

A smart speaker that incorporates a series of unique gesture controls, alongside a patented 360-degree sound system, packed with highly-capable tweeters and woofers alike.

## Acoustically transparent

The rigid polymer wool that encases the M5 isn't just for protection, but also contains miniscule holes that allow for acoustic sounds to pass through it, without causing noticeable audio feedback

## Beoplay's 'True360' sound

Thanks to three evenly-distributed tweeters, a front midrange driver and a powerful downward-firing woofer, the M5 can provide 360-degree sound at lossless quality





Although more known for its high-end audio offerings, Bang & Olufsen has been recently revamping its more affordable range. The Beoplay M5 wireless speaker is the latest creation from the manufacturer, and while the £530/\$600 price may still make your wallet wince, the tech packed into its tiny frame is pretty fantastic. A lot of comparisons have been made between the M5 and Sonos' top-of-the-line Play:5 speaker, and while there are plenty of similarities, the M5 does manage to carve out its own niche.

Firstly, the M5 offers a vast array of ways to wirelessly connect to your music. There's everything here from Chromecast support to Spotify Connect and everything in between, and thanks to its tuned wireless drivers, connecting and streaming takes all but a few seconds to complete. We should mention at this point, a big difference between both the M5 and Play:5 is that Beoplay's offering doesn't require a specified app to work, where the Play:5 requires you to get hands-on with Sonos' official app.

It's other standout feature is its 360-degree sound, which is built using three evenly-placed tweeters around the circumference of the M5, and when twinned with the powerful sound drivers within, you'll get a rich, loud and bass-heavy audio experience. There's even multi-room support, so multiple units of the M5 can be placed around your home, giving you room-filling sound no matter where you are. Don't be deceived by its tiny frame, however, the Beoplay M5 is an impressive piece of audio tech.



## BEOPLAY M5

*The smaller size of the M5 is pleasing on the eye, and the wool encasing is great for acoustic tunes. With 360-degree sound on-board, it's important that the M5 isn't placed in a corner.*

*Although it's smaller in size, the True360 sound capabilities of the M5 means it can still offer room-filling sound. Gesture controls are a fab extra, and are built-in to the aluminium topper.*

*It's hard to think of an app or music service that doesn't have direct links with the M5. Integrated Chromecast support means it's easier than ever to get your music playing.*

## WHICH SPEAKER SHOULD YOU BUY?



## SONOS PLAY:5

*It's much larger than the M5, but includes a svelte metallic finish. The Sonos Play:5 is noticeably heavier as well, and its size won't be ideal for those without spare space.*

*With six digital amps on-board, the Play:5 blows away the M5 in terms of pure power. Adjustable bass control is another plus here, but it only works through certain apps.*

*The Play:5 plays well with other Sonos products, but is fairly limited to the external apps and services it caters for. However, it can fit in well to most home cinema setups.*

### Build and design

### Audio playback

### Connectivity and extras

**WINNER!** Beoplay M5  
*Rules the roost in both connectivity and build quality.*

## GET £60,000 WORTH OF TECH FOR £530

The BeoLab 90 is a £60,000 speaker that oozes class, and in many ways, the much smaller M5 takes its lead from it. The M5's True360 sound system originates from the BeoLab 90, with 18 individual drivers placed around each panel of the speaker. These are then tuned to work with 14 different beam channels, which help give the impression of projecting the audio in different directions. What's remarkably clever about this system, is that it recognises when the sound may be impacted by walls and furniture, automatically altering the audio to suit the requirements from your room. The M5 offers this tech on a much, much smaller scale. Instead of 18 drivers, it uses tuned tweeters to increase the bass output from the speaker, individually placed around the circumference of the M5 to deliver room-filling sound. It then mimics the power of the BeoLab 90 by offering immediate multi-room support, compensating power for richer sounds.





# THE CAMERA THAT CAN SEE IN THE DARK

## Shoot the night with the Pentax KP's insane ISO

In digital photography, there are three principles for exposure – aperture, shutter speed and ISO. The ISO rating indicates how sensitive a camera's sensor is to light – the higher the number, the more sensitive, and the better positioned it is to capture images in extreme low light.

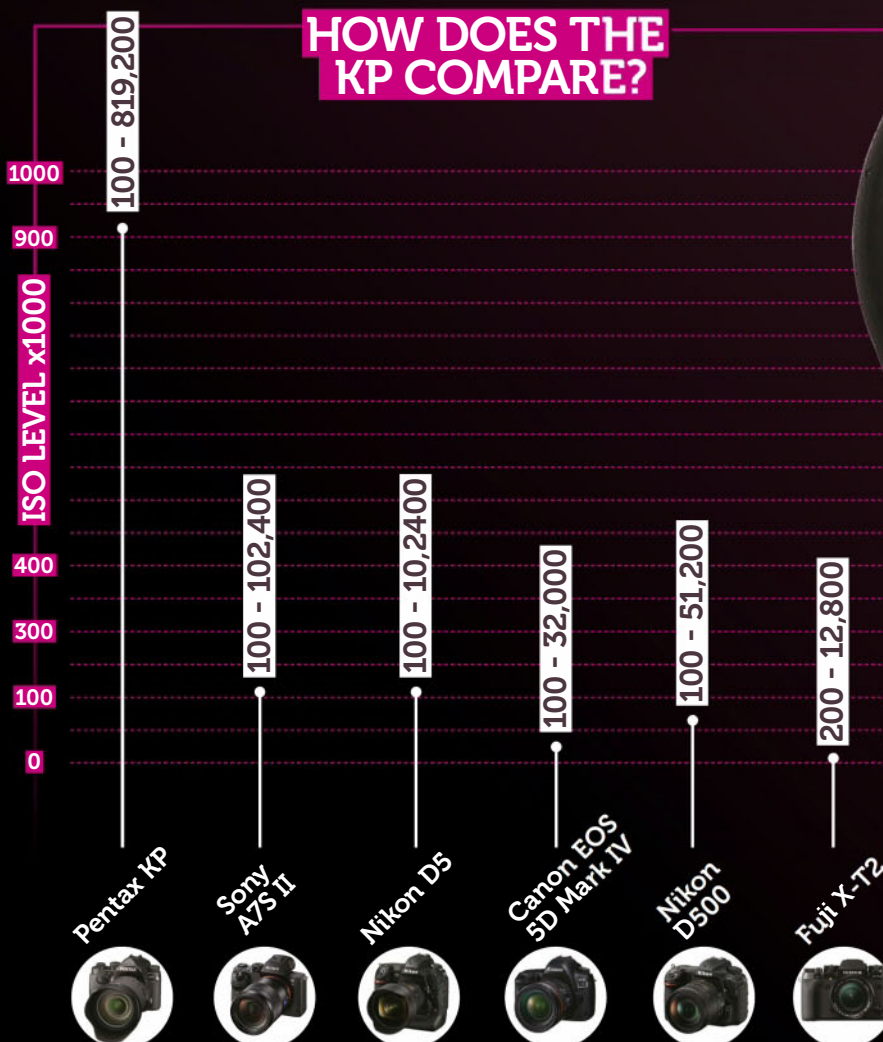
Most cameras start at a base of ISO 100 or 200, topping out at around ISO 12,800. That's not the case for the Pentax KP, which is making headlines with its incredible top native speed of ISO 819,200 – in other words, more than 60 times more sensitive than ISO 12,800.

You may hear of other cameras, such as the Nikon D5, which have even higher expanded ISO ratings – but when the ISO rating is 'expanded', it means that sensitivity reaches the sensor's top capability, and is then pushed by the camera's software, generally resulting in lower quality.

Higher ISO speeds also mean that you can shoot at faster shutter speeds to get your shot – spectacular news for shooting handheld without a tripod to steady the camera. If you like shooting star trails at night, or other low light photography (such as indoor subjects like gigs), then it's the ideal camera – but avoid high ISOs in bright light as it will lead to overexposed images.

If this sounds fantastic – there are downsides. Higher ISOs usually equate to more image 'noise' – the grainy dots that take away detail in your images – Pentax claims its new generation sensor combined with a Prime IV imaging engine helps to compensate for that, but you shouldn't expect any miracles.

### HOW DOES THE KP COMPARE?





### Dials and buttons

The control panels, button settings and dial controls give you quick access to all your settings, and are fully customisable depending on exactly how you like to work

### Shoot the stars

An optional GPS unit helps to create stunning astro photographs out of extremely long exposures - where stars appear as single points of light, rather than unrealistic trails

### All weather camera

The rugged exterior of the KP is dustproof and weather-sealed, as well as being able to work in temperatures as low as -10 degrees Celsius

### Tilt and shoot

The screen vertically tilts which gives you a view of the scene when shooting from high or low angles - but it's less useful for shooting portrait format images

### Full HD video

One of the limitations of this camera is that it can only shoot in Full HD - not the format of the moment, 4K, making it slightly less appealing for videographers

### Blur-free shots

A five-axis stabilisation system works to compensate for five different types of camera shake, helping to keep your images as sharp as a tack in a range of conditions

£1,100 | \$1,100  
ricoh-imaging.com

### Pentax KP

A high-end DSLR camera with an APS-C sensor capable of shooting at ISO 819200 - the highest native range on the market, making it incredibly sensitive to light.



# THESE ALIEN IN-EARS ARE REWRITING THE AUDIO RULEBOOK

**Audeze's iSine20 headphones may look strange, but they also set a new benchmark**

It's a surprisingly tough task to find a pair of headphones that cater for every need. Some demand the comfort that in-ear offerings bring, while others want the sound quality achieved by a pair of over-ear cans. But what if we told you that you can actually get both of these, and more, in a single headset? Audeze's new iSine20 range are looking to change the way in-ear headphones are perceived. Despite weighing just 20 grams, they include some of the best audio gear that are normally found in over-ear headphones. At the earphones' core is their magnetic planar technology, which is used to pulsate sweet-sounding tunes through your ears. This is done through a small, metal plate in each earbud, which bounces off between a layer of magnets to get the right sounds delivered at the right times, all depending on the type of track you're listening to.

We should mention the rather peculiar design used here, but there's method to the madness. The semi-open design helps minimise the distortion usually caused by using magnets in headphones. For you, this means the iSine20s are going to give you a tailored audio experience every time you use them.

Plus, for iPhone users, there's a specially-designed cable that works in tandem with these in-ear marvels and plugs directly into your Lightning port. The Cipher cable has an in-line DAC that optimises audio from your iPhone up to a staggering 24-bit, which is said to be up to five times better than the normal audio quality achieved through the 3.5mm audio jack. If you're a series audio lover, can you really afford to be without these?

## Super-sized driver

An enlarged sound driver sits in the base each earbud, which contains enough power to differentiate between bass, acoustic and treble-heavy tracks with the utmost of ease

£550 | \$600  
audeze.com

## Audeze iSine20

*A unique pair of in-ear headphones that use the same planar technology found in over-ear cans. Its unique design means it houses one of the largest in-ear sound drivers ever seen.*

## The power of magnets

Dual fluxor magnets in each earbud double the driving force behind the built-in drivers. For users, this means you're getting a powerful sound system in the comfort of your ears





**Planar magnetic diaphragm**

A thin layer sits in each earbud, which moves back and forth to produce the sound waves that then go into your ear. In tech terms, this is known as a planar magnetic diaphragm

**Semi-open exterior**

To protect against reverb and feedback from your tracks, the iSine20 sport a semi-open exterior. This gives both the sound driver and magnets the room they need to reproduce sound accurately

**Small in stature**

Despite their size, each pair of iSine20s weigh just 20 grams. This makes them the smallest pair of headphones ever made that use planar technology at their core

## IT'S ALL IN THE MAGNETS

Each iSine20 bud includes an ultra-thin magnetic sheet, known as a planar diaphragm. As your music plays, this sheet moves back and forth, using the magnets either side of it to control the speed in which it moves. This movement generates the sound waves that are then passed into your ears. Where planar tech gets really clever, is that the movements are also controlled by your music. Bass-heavy tracks will see the diaphragm move quicker and in shorter bursts, while more delicate tracks will leave the magnetic layer moving at a much slower rate. It all depends on the sound waves that your ears need at that given time.

**Get 4K sound**

An optimised Cipher cable is an added extra with the iSine headphones. With a built-in DAC, it upgrades your music to 24-bit sound quality, which is the audio equivalent of going from HD to 4K



062 | Can you perfect  
the ultimate  
phone camera?

# CAN YOU PERFECT THE ULTIMATE PHONE CAMERA?

An in-depth look at Olloclip's  
brand-new lens sets

Last year was a tough one for Olloclip. The iPhone 7 changed dramatically in form and feature to become widely regarded as one of the best smartphone cameras available. Optical image stabilisation was added to even the base iPhone 7 model, and a new 12MP camera sensor with a larger aperture lets 50 per cent more light in. Low-light photography was improved, a new Quad-LED True Tone flash added – hell, there was even a brand-new selfie cam. The iPhone 7 Plus has a dual camera, too, including a fancy new telephoto shooter. The shots (and videos) it can take can be truly breathtaking, so is there any need for an expensive collection of clip-on lenses that Olloclip specialise in to add to your arsenal? Olloclip had to redesign its lens sets because the iPhone 7 had a new housing that was too big for legacy lenses – it's a tough time to be an iPhone camera accessory maker... or is it? The iPhone camera is the most popular in the world, so companies like Olloclip have a huge, and very enthusiastic, market to tap into. Users are passionate about their photography and want a solution to make it even better. Olloclip's lens sets – we've been testing the Core Lens and Macro Pro Lens sets – do just that, providing superior image quality with a quick and versatile user experience. This is a gadget for the budding professional photographer rather than the casual user, but something we can highly recommend.



£80 | \$100  
olloclip.com

## Olloclip Core Lens

*These new clip-on lenses bring a new dynamic to iPhone photography. The Core Lens Set gives you optical zoom, fisheye, super-wide and 15x macro capabilities.*



### Redesigned optics

Olloclip has completely redesigned its lens sets for iPhone 7, and they now feature premium multi-element coated glass optics, which help to deliver superior shots in our testing

### Universal app compatibility

The lenses work with all of your favourite camera apps like Camera+, ProCamera and RAW Camera Shooting, and are great for shooting video, time-lapses, panoramas and 360-degree VR photos

### Easy to use

You don't need any fancy adapters to get started with Olloclip's lenses, in fact there isn't even any extra software to download. The patented systems attach and sign instantly



### iPhone 7 Plus

The Olloclip Connect system has been designed to be the only lens compatible with the iPhone 7 Plus's telephoto camera. A two-second flip of the lens base gets you ready to shoot instantly



### Screen protector friendly

Got a phone case on your iPhone 7 and worried Olloclip's lenses won't work? As long as your protector is no more than 0.5mm thick you'll be absolutely fine. This is a new feature

### Selfie ready

Olloclip's lenses will work with both your front and rear cameras, and given the improvements to the iPhone 7's selfie cam, that's great news for keen social media users

## GETTING A GRIP ON VIDEO STABILISATION

Olloclip has traditionally only ever concerned itself with photography, but its brand-new Pivot grip turns the focus directly to videos. And why not? The iPhone 7's camera can, after all, shoot 4K video at 30fps. The Pivot will grip any smartphone between four and 5.5 inches (that does rule out some of Android's biggest

phablets) and there are adapters in the box to connect a DSLR, GoPro or accessories like a light or microphone. The crowning feature is undoubtedly the ergonomic design, which effortlessly minimises shakiness in your videos with passive stabilisation. In truth, a more essential purchase than any lens.





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# LEVEL UP YOUR GAMING SETUP

## Ultra HD laptops go head-to-head

**Gaming laptops are all about convenience.** Powerful machines that unify the gaming experience, ensuring that the hassle of part replacement, upgrades and accessorising is taken out of the equation. They release you from the desk and let you carry the big releases and indie hits in your backpack, accessible at any time.

That convenience does, however, come at a price. If you're looking for a machine that can outperform the PlayStation 4, Nintendo Switch and Xbox One, run the latest releases without any drama and, of course, still handle *Crisis 2* on Ultra settings, it's going to cost you. While it may be cheaper to just build a gaming PC from scratch, there's something inviting about having a travel-ready device constructed on your behalf.

**Gadget** has rounded up the four best gaming laptops available on the market right now and pitted them against one another. While none of them are perfect, each does appeal to a certain type of gamer. Whether you're after a device that plays cutting-edge triple-A and VR games, or one that offers high performance, or maybe just a great balance between power and portability, there will be something here to help you clear out that ever growing litany of unplayed games sat gathering virtual dust in your Steam library.

£1,250 | \$1,200  
alienware.com

### Alienware 13 R3

*This powerful 13-inch laptop is powerful enough to support VR straight out of the box, essentially making it ready for just about any gaming experience you could hope to have.*

£1,000 | \$900  
razerzone.com

### Razer Blade

*The latest in the Razer Blade line, this laptop sets a new standard for mobility, battery life and powerful Ultrabook performance in the crowded gaming laptop market.*





£1,400 | \$1,500  
hp.com

### HP Omen 17

*Powerful, imposing and undoubtedly massive, HP's Omen 17 is one hell of a gaming laptop that exchanges build quality for massive graphical output and stability.*

£2,500 | \$3,116  
chillblast.com

### Chillblast Messiah

*Ultra powerful, ultra expensive and ultra impressive, the updated Messiah gaming laptop from Chillblast is an impressive piece of kit that'll seriously impact your bank balance.*





### Fantastic resolution

Chillblast's latest update to the Messiah comes packed with a 15.6-inch G-Sync display with an IPS panel, boasting a crisp 1920 x 1080 resolution, perfect for HD gaming

### Prepared for everything

Coming equipped with three USB 3.0 ports – not to mention a Thunderbolt 3 – the Messiah is also readily equipped to handle virtual reality in the shape of HTC Vive and the Oculus Rift

### Pure power

Powering the Messiah is Intel's Core i7-7700, working alongside Nvidia's GeForce GTX 1080 8GB GPU, making this one of the most capable gaming laptops on the market

### Heady internals

Want to load up those Steam games quickly? Chillblast has you covered with 16GB of RAM as standard, alongside an envious 1TB SSHD hybrid drive – five times faster than conventional disk loading

## PURE POWER AT A COST

### Chillblast brings out the big guns

British manufacturer Chillblast has made something of a name for itself in recent years. It is now feared and respected in equal measure by rivals and potential consumers alike. The company has built a reputation off of constructing and selling custom high-end hardware, designed to appeal specifically to the hardcore gamer. Its no-thrills approach to design means what you're getting here is raw power and pure performance, with a chunky price tag to match.

The Messiah 1080 proves that portability doesn't automatically mean a sacrifice in

performance, making it one of the most powerful mobile and capable gaming devices put out for purchase. The CPU is a souped-up quad-core Intel i7-7700, with graphical output bolstered by an Nvidia GeForce GTX 1080 8GB. The result is a laptop that is more than capable of handling the most power hungry games – from Doom, to GTA V to Halo Wars 2 – on higher settings with little impact to frame-rate or detail.

Thanks to the addition of three 3.0 USB ports, the Messiah is also fully equipped to deal with the virtual reality revolution, while

the addition of a Thunderbolt 3 port leaves it equipped to deal with extremely fast data transfer – should the included 1TB SSHD Seagate hybrid drive fail you.

All things considered, Chillblast's Messiah is unique in that it brings the desktop gaming package to a device that can be taken on the road, although as we mentioned before, that comes at a price. With the price starting at £2,500, escalating as you upgrade, it's only for the most hardcore of gamers, but it's difficult to find fault with the quality you're receiving for the money.



### OLED Screen

The top price tier of the Alienware 13 boasts an OLED screen, producing unrivalled colours and black levels, not to mention a hugely attractive refresh rate for shooting perfection

### Hinge-forward design

Echoing the design of modern clamshell notebooks, this gaming laptop features a new hinge-forward design. This allows for a more comfortable viewing experience, with Alienware finally putting usability before style

### Power and performance

The new quad-core processors and Nvidia Pascal graphics have ensured that the Alienware 13 R3 has plenty of power and a smooth performance across the board, similar to rival 17-inch notebooks

### Side-firing speakers

Alienware has re-engineered the position of the speakers, moving them to the side of the device. They are loud and crisp, outputting just enough bass to sound impactful while the device sits in your lap

# GORGEIOUS GAMING ON THE GO

## Alienware's laptop will break benchmarks

Extravagant, powerful and expensive; Alienware is no stranger to benchmark-breaking gaming laptops. The Alienware 13 R3 model is absolutely no exception. The company does, of course, have a right to boast about its latest release – its first 13-inch model to feature a quad-core Intel HQ-series processor. It's a huge improvement over anything we've seen from Alienware thus far, putting the dual-core U-series processors to shame; the two extra cores ensuring faster video rendering and smoother performance on the latest releases.

Combine this with the integrated Nvidia GTX 1060 and the sumptuous OLED display (boasting a refresh rate of one millisecond, far superior to Razer Blade's IGZO display) and you've got one hell of a powerhouse that is able to hold its own versus some of the larger notebooks on the market. The design is sleek yet, unsurprisingly, bulky; everything about Alienware 13 screams power and performance. On Ultra settings you should expect to see games (such as Gears Of War 4 and Titanfall 2) running beautifully, albeit often restricted to a stable 30 frames-per

second – that is, of course, the trade-off you'd expect to see when opting for a smaller, travel-sized gaming laptop.

Alienware has, once again, delivered, but that isn't to say the 13 R3 is a perfect gaming laptop. You'd be hard pressed to venture too far from a power socket, given the relatively small battery life – pushing four hours at an absolute *maximum*.

Given the bulky size and undependable lifespan, some may figure the massive price tag to be a touch too much, but that's the cost of gorgeous gaming on the go.





#### Viewing image

Featuring Nvidia's G-Sync technology and an 4K IPS display (both optional), ensures smooth gameplay, with a focus on minimising input lag and screen tearing on Ultra Settings.

#### Rich audio

The OMEN comes equipped with HP Audio Boost out of the box for a deeply dynamic sound, fine-tuned by the fine folk over at Bang & Olufsen, surprisingly good audio quality for a laptop.

#### Colourful keys

HP has imbued its keyboard with Dragon Red backlit keys, improving viewing in low-light environments and ensuring that the excitement of your game is enhanced by pulsating red buttons.

#### Solid-state drive

The included PCIe Solid-State Drive (SSD) storage solution is up to 17 times faster than your traditional hard drive, ensuring that the OMEN 17 can handle heavy multitasking and quick launching of games.

## A TRULY PORTABLE DESKTOP PC

### The versatile virtuoso of our test

HP's OMEN line of gaming laptops has never been particularly affordable, but it has provided impressive, powerful devices – that hasn't changed with the OMEN 17. While some competitor machines can look like rejects from a Syfy channel production, the OMEN is (for better or worse) wholly conservative in its design. Considering the size of the screen and the components shelled inside of the plastic body, this laptop is relatively light and surprisingly quiet – though some may take umbrage with the build quality.

An imprecise multi-touch trackpad will be a turn off for some – as will the tacky looking metallic hinges – but the OMEN makes games look and run so incredibly well that this should be an easy oversight to make. While the OMEN 17 comes equipped with a 4K, G-Sync enabled display, locking this laptop's resolution down to 1080p is where it really shines; smooth frame-rates and stunning detail from an array of high-performance games, such as Grand Theft Auto V and Halo Wars 2. This laptop is, however, also perfectly equipped to run 4K gaming and VR

(Oculus Rift), although you should expect to see FPS to take a small hit on this front.

There is absolutely no denying HP's OMEN 17 is a powerful device, one that is focused wholly on performance. It feels closer to a traditional desktop experience than any of the other gaming laptops listed here, though the plastic-feeling chassis, unspectacular keyboard and frustrating trackpad is more than a little frustrating when you think it costs more than either the Alienware 13 or Razer Blade. Then again, you are paying for power here, not a fashion statement.



Full HD IPS DISPLAY  
MATTE SCREEN

GROUP  
TEST  
WINNER

### Strong battery life

Even as the Blade offers higher-than-HD resolution and dedicated, powerful, graphical capabilities, the battery offers a surprising longevity when gaming and editing video

### Incredible keyboard

Razer has included its awesome Chrome lighting system into the Blade, sporting individually-lit keys that can display 16.8 million colours, customised through the included Synapse software

### Thunderbolt support

The Razer Blade has a Thunderbolt 3 port, which means it is compatible with Razer Core, an incoming device that can transform your laptop into a desktop gaming experience, boosting graphical output and stability

### High graphical fidelity

The latest update to the Razer Blade sees the inclusion of a Nvidia GeForce GTX 1060 graphics chip, ensuring the latest releases will look sublime, even on the move

# CHALLENGING THE MACBOOK PRO

## Razer packs power into a sleek package

Gaming hardware specialist Razer has established its platform by chasing a certain type of gamer: the hardcore, competitive enthusiast. The latest overhaul to the Razer Blade, sees the flexibility of an Ultrabook meet the power offered by desktop graphics – and the result is impressive, to say the least.

The Razer Blade is essentially Windows' answer to Apple's MacBook Pro, a versatile and powerful new Ultrabook that offers sublime graphical output, an impressive battery life, and a beautiful, customisable Chroma keyboard. Despite the small size of

the device – with a screen of just 14 inches and a light chassis – it's comfortable and easy to use, be it on your desk or in your lap.

The Razer Blade is more than capable at handling itself with recent releases, with shooters such as Overwatch and Titanfall 2 holding a respectably solid 60-plus frames per second on high-quality settings and a full HD resolution configuration. The impressive Intel Core i7 Quad Core processor also ensures that this device is more than capable of handling heavy duty multitasking, not to mention will handle photo and editing

software without a problem – should you be interesting in taking your gaming onto Twitch or YouTube.

The Razer Blade isn't just one of the most powerful device in this group test, but it is also most versatile. It's a lightweight, portable device that is designed to do it all – from playing your favourite games (albeit maybe not at the highest settings imaginable) to supporting your fledgling content creation career. There's a lot to love about the Razer Blade, and that's why it should be on every gamer's radar.



# MUST-HAVE PC GAMING ACCESSORIES



## LOGITECH C922 PRO STREAM 1080P WEBCAM

When it comes to livestreaming games on your new laptop, quality is always king. That's why you will want a camera that can support 1080p recorded *and* streaming video, you really shouldn't look much further than this webcam; it has been purpose built for gamers.

£85 | \$100 | [logitech.com](http://logitech.com)



## RAZER SEIRĒN

Have you got your eye on invading YouTube and Twitch? Then you're going to need fantastic audio, and it doesn't get much better than Razer's latest offering. Seirēn is a powerful microphone that should suit any of your gaming endeavours; it's great for podcasting and professional grade audio recording.

£160 | \$180 | [razerzone.com](http://razerzone.com)



## STEELSERIES RIVAL 500

While it isn't as flashy as the upgraded Rival 700 model, this mouse is actually one of the finest on the market for shooter, strategy and RPG fans, and it comes at a relatively affordable price. It's a versatile mouse, offering 14 buttons on the side panel, which is kind of incredible. Comfortable and flexible, it's awesome.

£50 | \$80 | [steelseries.com](http://steelseries.com)



## RAZER NAGA HEX V2

Designed for competitive MMO and MOBA players, the refreshed Naga Hex remains one of the most impressive gaming mice available. It's hugely flexible – with seven quick access buttons assigned to the thumb position – and even offers customisable colour behaviours through Razer's ever-impressive Synapse software.

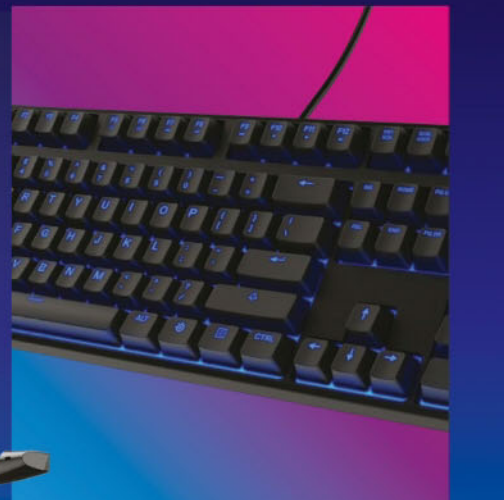
£75 | \$80 | [razerzone.com](http://razerzone.com)



## ASTRO A50 HEADSET

Astro's A50 gaming headset is a game-changer. An experience-enhancing headset that's unbelievably comfortable, hardy and versatile. It's suitable for use with virtual reality headsets and few other headsets can rival its clear sound and powerful performance – that'll have something to do with the Dolby Digital 7.1 Surround Sound support.

£175 | \$200 | [astrogaming.com](http://astrogaming.com)



## STEELSERIES APEX M500 KEYBOARD

The Apex M500 is a sturdy, tournament-grade keyboard built for professionals. But it doesn't matter if you're still just a rising star or casual player, because you'll still be able to benefit from SteelSeries' Cherry MX Red Gaming Switches and the M500's solid, unwavering performance.

£80 | \$100 | [steelseries.com](http://steelseries.com)



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# TECH WE LOVE

The best gadgets on our radar this month



## UPGRADE YOUR AUDIO WITH RUARK'S LATEST

The new MR1 Mk2 is the latest exquisitely-crafted design from the British audio company. With improved functionality and connectivity – including portability via a battery back pack for the master unit – these compact, active, wireless speakers sound utterly amazing!

**Ruark MR1 Mk2**

£330 | \$415 | [ruarkaudio.com](http://ruarkaudio.com)



## TAKE CONTROL OF YOUR PS4

If you fancy yourself the next greatest eSports star, check out Nacon's new Revolution Pro controller for the PlayStation 4, which offers insane level of customisation. Then again, it does cost as much as two standard DualShock 4s. Nacon PlayStation 4 Revolution Pro Controller

£85 | \$105 | [nacongaming.com](http://nacongaming.com)



£90 | \$110

[tomtom.com](http://tomtom.com)

**TomTom Touch Cardio**

## TOMTOM'S CHEAPER FITNESS BAND STILL PACK THE STATS

You might think 'satnav' when you hear the name TomTom, but the brand is keen to get into fitness tech. The TomTom Touch Cardio is its second wearable launch, this time with added heart-rate monitoring and phone call notifications. Along with step, sleep and activity tracking, all of these metrics are visible on its OLED screen with a flick of your wrist. Sadly, the Cardio lacks the unique fat and muscle percentage data that has made the TomTom Touch Body Composition so popular, but it does cost £40 less.

## CHANNEL YOUR INNER ELON WITH THIS INTERSTELLAR PEN

Transform your desk into Cape Canaveral with this out of this world writing set.

The Astrograph is a limited edition pen shaped to look like a rocket ship, created by luxury watchmaker MB&F. It has three stabilizer legs so it can stand up on your desk, which can retract with the flick of a switch. The Astrograph also comes with a box that is shaped like a launchpad and a tiny cosmonaut statuette. Unfortunately, the astronomic price of it will put off any sane individual, except the likes of Elon Musk and Jeff Bezos, who can afford to build actual spaceships.



\$15,945 | \$19,900

[mbandf.com](http://mbandf.com)

**MB&F Astrograph**





£995 | \$1,245  
gtech.co.uk  
**GTech eBike**

## THIS EBIKE OFFERS A POWER ASSIST FOR GOING UP HILLS

Better known for making AirRam bagless vacuum cleaners, GTech also makes a range of electric bikes. These come with 36V high-torque motor built in the rear wheel, which has two cruising speeds controlled by a switch on the handlebars. It's powered by a battery pack that is about the shape and size of a water bottle, but promises to last 30 miles on a single charge. Under its own power, the bike is capable of going up to 15mph, though you can obviously pedal faster yourself. The bike's in-built computer also monitors your pedalling, so will give you an added boost when it senses you're struggling on a hill. Get the City model for your commute or the Sport for offroad trails.



## LET OTHERS KNOW YOU TURN YOUR MUSIC UP TO 11

These noise-cancelling over-ears have EV meters on either side. Created by the top bods at Ashdown Engineering, which make bass amps for the likes of the Foo Fighters and Lenny Kravitz, you can be sure the readings are accurate and the sound quality is superb.

**Meters Music OV-1**  
£280 | \$355 | metersmusic.com



## PRESENT BETTER WITH THIS WAND

Pretend your next work presentation is a TED talk with this high-tech pointer. Logitech's Spotlight responds to natural gestures, allowing you to highlight areas with a digital spotlight and magnify images. It even vibrates after a set time to stop you from droning on.

**Logitech Spotlight**  
£120 | \$130 | logitech.com



£180 | \$200  
nanoleaf.me  
**Nanoleaf Aurora**

## SET UP A HOME ART INSTALLATION WITH THESE SMART LIGHTS

By this point, we're all familiar with smart bulbs. You can turn them on and off with a tap of an app and if, you pay a bit extra, you can even get ones that change colour. But the Nanoleaf Aurora offers something more: each starter pack includes nine triangular panels. These are modular and can be arranged on your wall in a variety of formations. You can customise the colour, brightness and more of the whole thing or each individual panel. The end result looks like a modern work of art



## IS THIS THE iPhone OF VAPORIZERS?

Tech geeks that vape will love the PAX 3. As well as having a shiny metal finish and LED display, this vaporizer heats up in just 15 seconds and with a lip sensor that will conserve power when you're not drawing. You can also adjust the temperature and more via Bluetooth using a phone app.

**PAX 3**  
£220 | \$275 | PAXvapor.com



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your  
say!



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Jack Parsons

**Gadget**





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You told us that you like to explore topics in great detail, so we've added extra long read features to every issue.



### 2 More news

At your request, we added extra pages to our Startup section, so we can report on more of the latest tech launches each month.

### 3 A new website

Based on your feedback, we've given our website a complete overhaul, including a new look, more articles and exclusive videos.



### 4 More infographics

You told us that you love our unique visual explanations, so we've made a point of making them bigger and better.



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#### Competitions

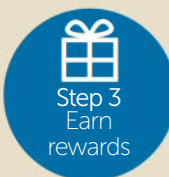
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# THE VIRTUAL MUSIC TEACHERS

IT'S TIME TO STOP STIFLING YOUR INNER  
ROCK GOD WITH THIS AWESOME TECH  
DESIGNED TO HELP YOU GET JAMMING



When it comes to unfulfilled ambitions, learning to play an instrument tends to be up there with writing a novel or mastering a foreign language. How many of us have strummed along on air guitar to an Eric Clapton riff or snapped a pencil as we launched into a mock drum solo on the nearest hard surface?

Yet, for most of us, playing music never made it much past dabbling with a recorder at school. Pricey lessons, a general lack of time, and good old-fashioned procrastination conspired to keep those rock-and-roll daydreams from ever getting out of our parents' garage. But help is now at hand.

There's a growing amount of pretty awesome tech out there aimed at making those musical aspirations finally become a reality. Just connect them to your smart device or computer and get ready to finally start playing like you always knew you could.

## TICKLING THE IVORIES

Do you fancy yourself as the new Elton John? Then dust off your star-shaped glasses and take a gander at the One Smart Piano.

Designed to look just like an ordinary piano, and made especially for beginners, the first-ever Apple MFi Certified smart piano works with an app to teach budding Liberaces of all ages and skill levels how to play by using LED-guided keys with interactive sheet music and video lessons. With more than 2,000 piece of music stored in the free app, there's a huge amount of tunes to dabble with. It's been named 'Best Teaching Tool For Beginning Students' by the National Association of Music Merchants (NAMM), and counts Chinese concert pianist Lang Lang among its investors.

Ariel Liu, Head Of International Growth at One Smart Piano, tells us, "With easy-to-follow LED light up keys and well-designed learning features in the free app, beginners can learn to play easy songs such as Happy Birthday in two hours, and experienced players can pick up a new song much faster. You can also choose to learn in your preferred method – such as with interactive games – and record to share with friends."

Another piano-themed gadget is the PianoMaestro. More affordable than some of its competitors, this is essentially a strip of lights that fits onto your existing piano keyboard. The trade off here is that it's more basic when compared to its stablemates.

Inventor Ken Ihara claims that the PianoMaestro removes the frustration experienced by some beginners of not being able to read music, by showing them when and where to press the keys. "If you are just starting out, I would recommend getting a few private piano lessons," he says.

"Technology does not solve everything, and bad habits are hard to unlearn. However there

### A real piano

*First and foremost it's also a piano, complete with weighted keys, a classic wooden look and professional stereo sound*

### A smart connection

*The songs you play are stored in their thousands on the free app. Just read the sheet music off your compatible smart device*



### Lighting the way

*Learning to play is as simple as just following the lights. The red lights represent the right hand notes, and the blue lights tell you where to play with your left hand*

## "Following guide lights is an easier and more efficient way to learn a new song"

comes a point where your desire to play a song is not limited by your fingers, but your ability to sight-read music.

"Sight-reading music is a skill that takes years to develop," Ihara continues, "and most students quit out of frustration before they reach that level, that is where the PianoMaestro comes in. For many beginner and intermediate students, following guide lights is an easier, more fun and more efficient way to learn a new song."

Ihara goes on to tell us that feedback from customers has been positive, with one particular beginner using the tech to help make the best day of his life even happier. "One customer bought a PianoMaestro because he wanted to play a song at his wedding," he elaborates. "He had 33 days to learn it. I sent him his PianoMaestro by express mail so he would have a few more days to practice."

"Thanks to his focus, dedication and hard work, and a little help from the PianoMaestro,

he was able achieve his goal to make his wedding day extra special and memorable."

## ONE-MAN BAND

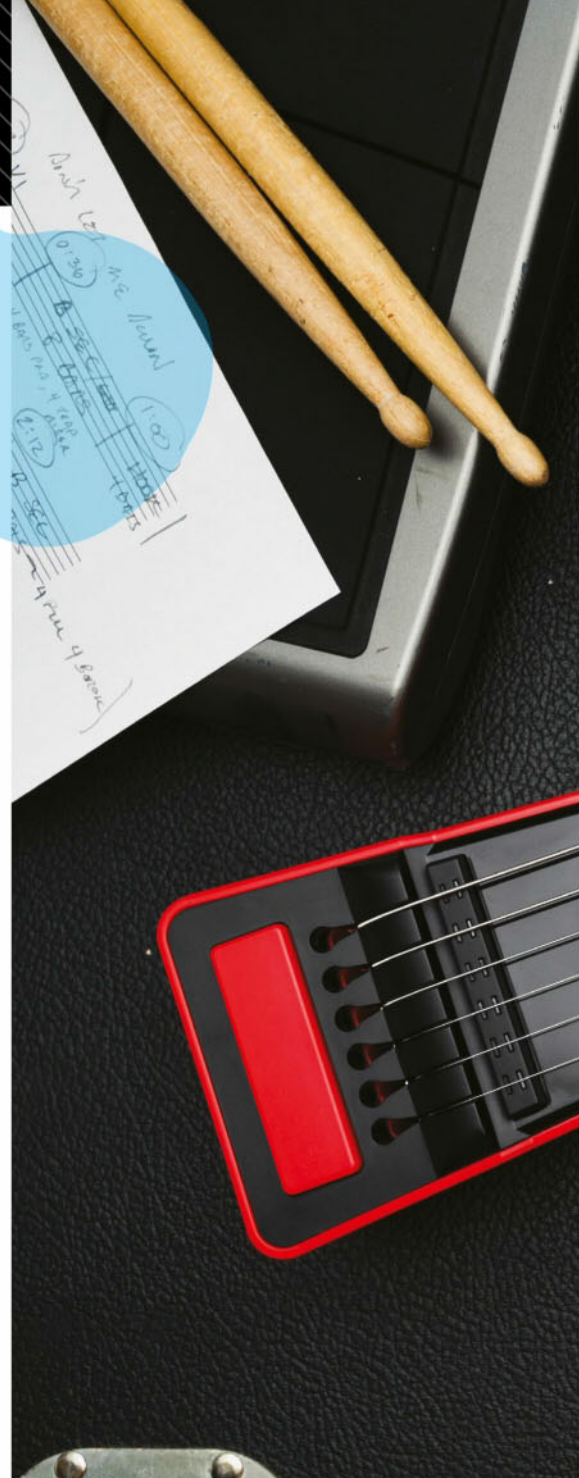
If you're still struggling to nail down exactly which instrument you want to get good at, then it could be an idea to reach for a device that gives you a little bit of everything.

The Artiphon Instrument 1 is a single piece of equipment that can be played as a guitar, piano, drum pad, synthesiser, and more.

By connecting it to your smartphone, tablet or computer, its maker claims players of all skill levels can get to grips with a huge selection of sounds. For guitar techniques you can use the fingerboard and bridge to strum and pick chords, scales, and riffs, while pressure and velocity-sensitivity add nuance and expressiveness to your music playing. When you lay your device flat, you can use the fingerboard like a drum machine for







## LEARN WITH YOUR COMPUTER

Of course, if you already own an instrument then there are computer programmes and apps out there that will show you the ropes. One of the most popular is eMedia Guitar Method.

It features lessons from University Of Colorado-Boulder's Kevin Garry, PhD, and over 180 lessons to take you from basic exercises, such as how to tune a guitar and play simple chords, to fingerpicking, how

to read guitar tabs and music notation.

Integrated guitar software tools include an automatic guitar tuner, chord chart/dictionary, fingering charts, and metronome.

Note Tracker and Finger Tracker technology displays the notes you're playing in staff notation and on the Animated Fretboard, as the guitar software listens to your playing via the computer microphone.

There are also 50 videos with split-screen view and close-ups of both hands to show you the techniques needed to learn how to play guitar.

It also features over 70 easy guitar songs, including hits such as 'Knockin' on Heaven's Door' and 'Rock'n Me' and other hits made famous by Bob Dylan, Steve Miller and the Rolling Stones, all designed to make guitar lessons enjoyable.

making beats and triggering loops, or switch to 72 pressure-sensing keys for a piano experience.

Do you have a preference for learning things the classical way? Then you can play it without frets and slide between notes like a violin, upright bass, or slide guitar. Rocking your finger back and forth adds vibrato to your notes too. You can even use your iPhone as a virtual bow.

By pairing it with Artiphon's companion app you can choose sounds, tunings, and a slew of other settings, design new instruments and save them in your library, and because it's iOS and MIDI-compatible, it works with hundreds of mobile apps such as GarageBand, Animoog, and SampleTank. You can also connect to your Mac or PC via USB to control

Ableton Live, ProTools, Logic, Mainstage, and others.

"Think of it as a creative toolkit that adapts to you," Jacob Gordon, cofounder of Artiphon, tells us. "We've seen a really strong reception from such a broad range of people, young and old, beginner and professionals. Amateurs love how it lets them explore, experiment, and invent in flexible and intuitive ways.

"More advanced music makers love that it connects to their existing gear and enables things they couldn't do before," Gordon continues. "We're also pushing updates to the iOS app, desktop software, and the INSTRUMENT 1 firmware on a regular basis. This means we can add new features and refine the usability ongoing, which is one of the advantages of a connected device."

## THE SMART STRUMMER

According to his US army report, a young Jimi Hendrix was frequently on the end of his sergeant's tongue-lashing for being too attached to his faithful guitar. He was also once allegedly discovered in the latrine 'entertaining' himself, but that's somewhat by the bye. The point to take away is that great things can come from humble beginnings, and a bit of mischief.

The Jamstik+ is a portable, digital guitar controller. It uses technology to sense where you place your fingers so you can learn where to put them and ditch those bad habits that can grow in your training before they set in and get infinitely more difficult to sack off.





*The Jamstik+ helps you learn all the moves you need for a real guitar*

What's more, it can be used with hundreds of MIDI apps and DAWs which its maker says that it gives you the creative freedom to play guitar with any sound. Using apps like GarageBand, you can also experiment building and recording an entire song, from drums and keys to guitar and bass.

It can also be integrated with the FourChords Guitar Karaoke app, which allows you to learn thousands of popular songs. Senior Producer Matt Cannon says, "It differs from other learning methods because it comes with interactive lesson apps that will teach you how to play with real-time feedback. It's just a matter of matching in-app cues and following along with the interactive lessons."

Cannon says the advantages of learning with his machine include not having to worry

about your friends taking the Mickey out of you when you hit a bum note.

"We will never tell anyone that they shouldn't learn the traditional way with a full-sized guitar and an instructor," Cannon continues. "In fact, most of our staff learned the traditional way!"

"However, the Jamstik+ has some huge advantages, and the skills you learn with it will translate directly to a full-sized guitar. "For example, it's portable and backpack-friendly, so you can take it with you anywhere and practice whenever you have some down time. The other nice thing about the Jamstik+ is the privacy it enables. It can be discouraging to play the wrong notes for all to hear, but with the Jamstik+ you can just plug headphones into your device and practice in private!"

Cannon adds, "The Jamstik+ has been very well received by both the tech and music industries, as well as by educators, beginners, and pros alike. Educators love using it as a tool in their classroom, and beginners love that it's truly interactive, allowing them to take lessons at their own pace in an engaging way."

"On the other hand, professional musicians and guitarists find it convenient and useful for travelling and recording music digitally. MIDI has long been the realm of keyboardists, and now the Jamstik+ gives guitarists another creative music production tool."

## THE VIRTUAL DRUMKIT

Ever wanted to bash some drums, but could never afford a real set or fit them into your ►



# THE ELECTRIC LIGHT ORCHESTRA



## KEYS TO SUCCESS

Simple and effective, the Piano Maestro is a set of lights you can spread over your existing keyboard and eliminates the need to be able to read sheet music. It's considerably cheaper than some of the other alternatives out there.

**The Piano Maestro**  
£135 | \$140 | [thepianomaestro.com](http://thepianomaestro.com)



## LEARN TO JAM

The jamstik+ helps you get the feel of a real guitar and uses lets you sense where your fingers are, helping you to learn chords. It's also portable, no need to string it over your back to the chagrin of fellow tube users.

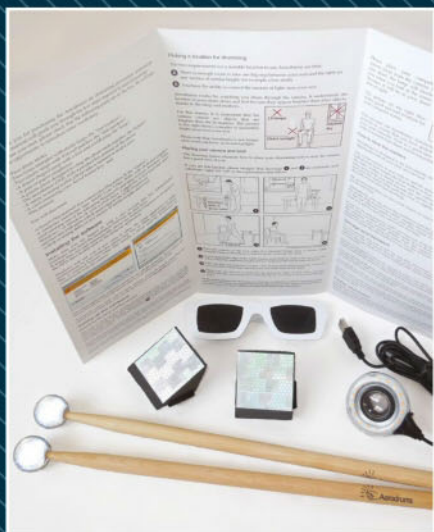
**jamstik+**  
£250 | \$300 | [jamstik.com](http://jamstik.com)



## ALL IN ONE

This versatile device lets you do it all. Strum a guitar, bow a violin, tap a piano, or loop a beat on a single instrument. If you're struggling to decide which musical path to go down – then this gives you plenty of options.

**INSTRUMENT 1**  
£320 | \$400 | [artiphon.com](http://artiphon.com)



## THE INVISIBLE KIT

The Aerodrums replicate the sounds and impact of real drums just by analysing where you move the most important part of a real set – the sticks. Ideal if you're short on space or can't commit to buying a physical drum set.

**Aerodrums**  
£135 | \$200 | [aerodrums.com](http://aerodrums.com)



## FRET YE NOT

This looks and feels like a guitar but features lights in the neck to show you where to put your fingers. There's hundreds of classic rock songs to learn and play with the free Fretlight Video Player app too.

**Fretlight**  
£450 | \$400 | [fretlight.com](http://fretlight.com)



## THE MUSICAL KECKS

Drumpants let you play music literally by tapping your body. Just attach the triggers anywhere then tap them to hear the sounds. The system comes with more than a hundred sample sounds too – just tap and groove!

**Drumpants**  
£150 | \$190 | [drumpants.com](http://drumpants.com)





The Aerodrums let you play drums without an actual drum kit

► house? Or perhaps you were too worried about the reaction of the neighbours or felt it may finally give your spouse those grounds for divorce? Then fear not because there's a virtual drum kit you can get your hands on, and there's no psychotic JK Simmons character from *Whiplash* around to make your hands bleed if you can't keep up.

Described as 'the best drum kit you've never seen', according to its maker, Aerodrums use a high-speed camera and reflectors on the drumsticks and your feet to track their motion. Your air drumming gestures then create specific motions that let them determine when you intend to hit a drum, which drum, and at what speed.

Yann Morvan, product developer, tells us: "Aerodrums is great for practicing the drums

at home because the coordination, timing and independence skills translate exactly. Hitting the air is also good for drumstick technique because it improves finger and wrist control, as you cannot rely on rebounds to make notes happen.

"Combining Aerodrums with a practice pad is a great way to learn the drums if you can't have a drum set at home." He added that the firm plan to release a 3D/virtual reality mode in the next few months.

"It will enable people to see the drums as if they were there using virtual reality goggles like Oculus Rift or Gear VR. We also plan to support the augmented reality devices that are coming out like HoloLens. This will enable you to make a fully functional drum set appear in your environment."

## THE MUSIC TEACHER

Clever technology is all well and good, but what do the professionals think? Can smart technology ever take the place of a human teacher? Or are they best used as a way to dip you in and practice in between sessions?

Peter Darling is a tutor in composition and song-writing at Leeds College Of Music whose credits include Sky Sports and the BBC Music Video Festival. He says, "Technology can definitely be useful to those first starting learning an instrument or craft; however, as with most skills, you need the motivation and drive to regularly practice it, otherwise it'll end up like most new year's resolutions and be abandoned before February is over!

"This is where a tutor is most effective. I think of it like going to the gym; if you can self motivate, then you might not need a personal trainer, but a personal trainer can push you further than you would have done by yourself, and can help you train in the most efficient and effective way possible to help you achieve your goals."



"You need the motivation to practice it, otherwise it'll end up like most resolutions"



# PACKING FOR THE APOCALYPSE

FACE  
DOWN YOUR  
OWN VERSION  
OF THE WALKING  
DEAD WITH THIS  
ULTIMATE TECH  
SURVIVAL  
PACK

The worst has happened. The world is coming to an abrupt end. Is it a natural disaster, one so big it's caused Roland Emmerich to stop and take notes? How about a meteor that's caused Aerosmith to croon themselves into oblivion? Or perhaps an undead pandemic that's got baseball bats everywhere instantly wrapping themselves in barbed wire? Whatever the reason, civilisation is falling apart and you need to grab that survival pack you cleverly stashed in the attic.

So what's in that trove? Well, thankfully you read this issue of **Gadget** moons ago and you decided to follow our advice and gather together some of the best survivalist tech and gadgets on the market. So join us as we delve into this gamut of gear now you're ready to sleep, eat, drink and forage your way to post-apocalyptic survival.

## Replaceable carbon core

With this you can reduce the level of chemicals, pesticides and see a reduction in bad-tasting water

## Kitted out

This portable water filter comes with a carry case, a handy prefilter and a cleaning pad to help you give the device a decent scrub

## CLEAN YOUR WATER WITH A PUMP

When it comes to cleaning the water you find out in the wild, you could opt to boil it with a camping stove, but the problem is that can take time – so how about a device that's all about maximum results with a minimum of effort? That's where the Vario Water Filter comes in from Katadyn.

It's a pump-action creation, with a dual-filter design that consists of three filter levels: a high-performance glass fiber filter, a ceramic prefilter that's easy to adjust individually according to the cloudiness of the water and a handy active charcoal for eliminating odours. You can produce up to two quarts of drinkable water per minute in its fast-flow mode and one quart per minute in its economical long-life mode.

Since the filter removes particles and reduces the amount of chemicals in each quart of water thanks to its carbon core, you're getting one of the best ways to clean water in a hurry.

Katadyn Vario Water Filter  
£95 | \$85 | [katadyn.com](http://katadyn.com)

## Compact and lightweight

This being a portable device, the Katadyn Vario Water Filter has been designed to be both lightweight and compact, with a weight of 425 grams and a height of 6.5 inches





# APOLYPTOSE



## Safe in water

Unsurprisingly for a survival-focussed smartphone the S60 is water resistant up to a depth of five metres – pretty handy if you're wading in a river, etc.

## Shockproof

Other than being waterproof for up to 60 minutes in five metres of water, the S60 can survive a 1.8-metre drop (so you can put it through the mill and it'll keep working)

## Take maps offline

The S60 enables you to save large maps offline so you can navigate your local area even if you stray away from your network's reach

## GET A PHONE THAT CAN SURVIVE ANYTHING

When the end of the world arrives (or you're just heading out on a wild adventure and you really can't afford to risk taking your brand-new, easily breakable iPhone), you need to know you can pull out a dog and bone that's going to stand up to the rough and tumble of the end times.

So enter Caterpillar, makers of everything from heavy machinery to boots, which has teamed up with thermal imaging specialists Flir to create the world's first smartphone with, you guessed it, in-built thermal imaging. Yes, you too can see the world through the eyes of a Predator and still make calls to your loved ones (if your phone network has survived the end of the world, that is).

The Cat S60 has been designed to survive practically everything, including a huge resistance to water (which can be activated with a handy Lockdown switch) and the power to drop it almost two metres without it breaking. Yup, that means you can even take photos and record video underwater. It even has a glove- and wet-finger-compatible Corning Gorilla Glass 4 touchscreen. And that thermal imaging is a must, considering that it enables you to spot everything from the gap in your home insulation to that brain-munching zombie wandering in the woods after dark.

**Cat S60 GTM Smartphone**  
£530 | \$630 | [catphones.com](http://catphones.com)



## COOK YOUR FOOD AND CHARGE YOUR DEVICES

When you're out in the wild, space comes at a serious premium – especially when you're carrying around everything to your name in a rucksack. So why not combine your need to cook food with the necessity of charging your USB-connected devices? Okay, there's a good chance your smartphone might be useless for calls come the apocalypse, but there's still all those MP3s and podcasts to get you through the end times.

Best of all, it cooks your food as well! Alongside the ability to charge a smart device (its makers say you'll get a good hour of use from a 20-minute charge), the BioLite offers the best way to heat up your food when you are camping – without the need for petroleum or other fossil fuels that will no doubt become a commodity come the apocalypse. All you need to do is gather up some dry wood and branches, pop them in and you're cooking without gas. Need to boil some water to remove any bacteria and make it safe for drinking? All you need to do is pop on the fire and it'll boil a litre in as little as four minutes.

**BioLite Wood Burning CampStove**  
£115 | £130 | [bioliteenergy.com](http://bioliteenergy.com)

### Break out the cookware

The wood burner can support a huge range of pots and pans up to ten inches in size so you'll have plenty of room to cook beans and the like

### Super lightweight design

The wood burner has been designed to be incredibly lightweight – around 907 grams (that's the same size as a one-litre Nalgene water bottle)

### Reduce your footprint

Since the Wood Burning CampStove doesn't require petroleum or other fossil fuels to work you don't have to worry about making the environment any worse than it already is

## SURVIVE WITH BEAR

Combining Gerber's considerable experience in outdoor gear and knives and the SAS survival credentials of persistent island brawler Bear Grylls, the Gerber Bear Grylls Basic Kit gives you all the main tools you'll need to endure a variety of survivalist scenarios.

Sealed in a ripstop nylon bag, the eight-piece set comes with a Gerber SS knife (complete with a two-inch plain/serrated blade), fire starter kit, whistle, snare wire, waterproof matches, cotton ball fire tinder, emergency cord, pocket survival guide and rescue instructions.

**Gerber Bear Grylls Basic Kit**  
£20 | £20 | [gerbergear.com](http://gerbergear.com)

## BLADE WITH A BEAM

When is a knife not a knife? When it's a knife *and* a flashlight, of course. The cryptically-named BladeLight Hunt from American manufacturer SOG is a brilliant tool to have to hand if you're in a scrape and you need to illuminate and cut something once the sun goes down.

The 3.8-inch blade comes with a battery built into the glass-reinforced nylon grip, offering a decent level of luminosity of 84 minutes via the power of two AAA batteries. It even comes with a sheath so you can keep it on you at all times.

**SOG BladeLight Hunt**  
£75 | \$45 | [sogknives.com](http://sogknives.com)

## INSULATE DRINKS LIKE A PRO

Heading out into the wild means you need to keep your favourite drink just as you'd have it at home. Whether it's hot soup, cold water or an iced concoction, you can rely on the Stanley Mountain Vacuum Coffee System to maintain optimum temperatures for hours at a time. The rustproof stainless steel design will keep hot drinks piping for 15 hours, cold drinks chilly for 13 hours and iced drinks frozen for a whopping 50 hours. It even has a built-in press for coffee making.

**Stanley Mountain Vacuum  
Coffee System**  
£45 | \$60 | [stanley-pmi.com](http://stanley-pmi.com)

## DON'T LOSE SIGNAL

When you're out in the wild, apocalypse ensuing or not, there's a good chance the rural locale you're exploring is a little light on signal. In fact, you might not have any connectivity at all. But just because you're outside a network doesn't mean you're cut off.

Simply connect the pen-sized goTenna device to your smartphone and you can send texts via networks (and send out a GPS signal, free of charge). Connected via Bluetooth, the clever little goTenna uses smart protocols and radio waves to keep you connected even when your phone can't pull it off itself.

**goTenna**  
£125 (per pair) | \$200 (per pair)  
[gotenna.com](http://gotenna.com)





## TURN YOUR WATCH INTO A MAP

Casio might be the maker of old-school calculators and classic digital watches, but its modern output has proved to be just as important with a slew of wrist-based timepieces ranging from regular analogue versions to your flash smart variety. The new WSD-F20, the follow-up to the sturdy and reliable WSD-FS10, falls into the latter camp and has been designed to give the adventurer of today (or the end of the world survivalist) everything they need in watch form.

The WSD-FS20 shares much of the same physical characteristics as its predecessor, measuring 61.7 x 56.4 x 15.7mm, but it's noticeably lighter weighing in at only 92 grams. That's certainly still heavy for a watch, but

considering it's been created with a durability standard of MIL-STD-810 (meaning it's been deemed sturdy as a tank by the US's Department Of Defense) we can forgive it a touch of chunkiness.

A lot of that size comes from the impressively vast 1.32-inch, dual-layer LCD touchscreen, complete with a 320 x 320 resolution, that dominates the front of the timepiece. Still, this is the biggest selling point of the device thanks to its ability to display maps in full colour on its face (although you can switch between colour and monochrome mode to conserve battery life). Said full colour maps can also be downloaded offline.

The WSD-FS20 is a definite upgrade from the FS10, thanks in part to the inclusion of GPS. A given considering this is being aimed at the

adventurer in us all, the GPS functionality uses Glonass and Michibiki satellites for extra accuracy (without becoming the main drain on the battery). There's even a Moment Link function that shows where your friends are in the world via text, and Location Memory that enables you to leave a digital breadcrumb trail by systematically hitting one of the buttons on its side.

Talking of battery, it's hard not to address the biggest problem holding the WSD-F20 from being a truly all-powerful rugged watch – its limited battery life. Even with a low-power form of GPS, that huge touchscreen and its Android Wear functionality means you will only get a day's worth of use out of it at best.

**Casio WSD-F20**

£400 | \$500 | [wsd.casio.com](http://wsd.casio.com)

### Super connected

The WSD-F20 offers about as much connectivity as a smartphone, with built-in GPS, Wi-Fi and Bluetooth

"DEEMED  
STURDY AS A  
TANK BY THE US  
DEPARTMENT OF  
DEFENSE"



### Built for anything

The watch has been built to take a beating – with a water resistance up to 50 metres and a reinforced casing, you can really put this watch through hell

### Day in the life

It comes with your usual lithium-ion battery – the only issue is the sheer amount of functionality means you'll barely get a day's use before it drains



## HAVE A BRIGHT IDEA

The end of the world means a considerable lack of electricity, so if you're braving a brave new world you're going to need an alternative light source when night falls. So how about packing an incredibly powerful torch that straps comfortably around your noggin?

The Nao 575L Head Torch from the minds at Petzl is just the ticket, offering an impressive 575 lumens of brightness that dynamically adapts to the environment around you. It's IPX4 water resistant too, and it comes with a lithium-ion rechargeable battery.

**Petzl Nao 575L Head Torch**  
**£120 | \$150 | [petzl.com](http://petzl.com)**



## Super resistant

The inner workings of the The Cave are made from thermoplastic polyurethane, which makes it extra resistant to the weather

## WIND-RESISTANT FIRE STARTER

When you're braving the cold and dark of the wilderness, you're going to need to be able to start a fire to keep yourself from turning into a post-apocalyptic Popsicle. That's where a rugged lighter, such as the Ranger from Turboflame, comes in — built to take the knocks of outdoor use, its double-jet-flame design can heat materials up to 1,300 Celcius. The flame is also wind resistant, so it's not going to blow out on you if you're trying to make things burn during a gale.

**Turboflame Ranger Turbo Lighter**  
£10 | \$15 | [turboflame.co.uk](http://turboflame.co.uk)



## A MULTITOOL ON YOUR WRIST

**YOUR WRIST**  
So you've got a powerful and rugged Casio WSD-F20 strapped to one wrist as you wade into the apocalypse, but what about the other one? That's real estate for another survival essential. How about a multitool that doubles as a bracelet? It might sound mad, but the Tread from Leatherman is a real thing and it's a great way to store tools without taking too much space. Each stainless steel bracelet link has a unique tool function, ranging from screwdrivers and wrenches to bottle openers and cutting hooks.

Leatherman Tread Bracelet  
£185 | \$185 | leatherman.com



## RADIATION-BLOCKING BRIEFS

How about we bolster your survival pack for the end of the world with a pair of pants that keep your unmentionables protected from all that pesky radiation. Okay, so they're not going to be much use against nuclear fallout, but they will block up to 99 per cent of all wireless radiation from reaching your baby-maker. Made using a mixture of silver, cotton and polyester, Spartan Underwear is also antibacterial so it'll reduce odours and keep your bits fresh and clean for longer.

**Spartan Smart Underwear**  
£35 | \$45 |  
[spartanunderwear.com](http://spartanunderwear.com)



## One-pump system

It might look complicated, but you simply unfurl the tent and in less than a minute the The Cave will be pumped up and ready for use.

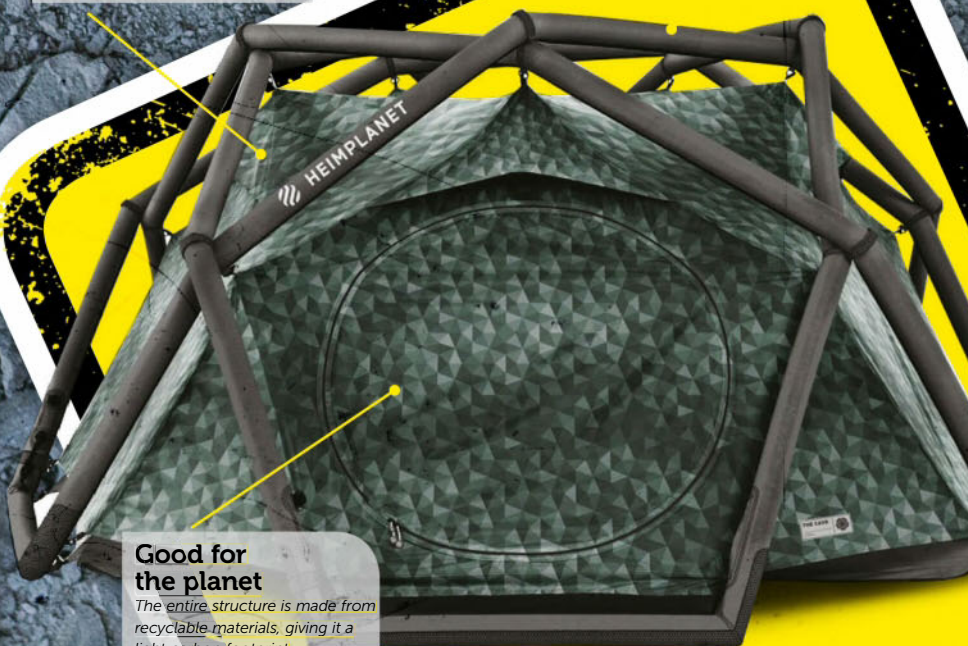
## CAMP INSIDE A TENT WITH AN EXOSKELETON

Heimplanet has been making quality tents for years, but The Cave marks its first foray into the world of the inflatable variety. Inflation might sound a little dangerous in the sharp and unforgiving wilds of the end times, but The Cave has been designed to be both durable and easy to use. At first glance it's easy to assume The Cave, with its endoskeleton-esque web of criss-crossing limbs, is a seriously difficult makeshift abode to construct. But Heimplanet has pulled a fast one and produced its most user-friendly tent yet.

The inflatable geodesic structure is weatherproof so you can be sure neither wind nor rain will ruin your slumber out in the wilds. The Cave consists of an inner and outer tent along with its inflatable limbs and you'll only need to put it together properly the first time – from then on you just need to unfurl it, pump it up and you're golden.

The inflatable limbs have been designed with a multi-chamber setup so if there's a puncture, the whole tent won't collapse. It's two-to-three person capacity is pretty roomy too, with lots of internal pockets to store your end of the world knick knacks.

**Heimplanet The Cave Tent**  
£460 | \$700 | [theimplanet.com](http://theimplanet.com)



## Good for the planet

The entire structure is made from recyclable materials, giving it a light carbon footprint



## A DUFFEL BAG WITH ARMOUR ON

When it comes to carrying all your belongings in an end of the world scenario, you need to know your bag of choice is going to be able to stand up to the rigors of life in the apocalypse. That's why we've opted for the impressive Maximus Duffel Bag from Eddie Bauer's First Ascent range. The firm has plenty of experience in the field of outdoor clothing and gear, so the Maximus Duffel comes with a serious pedigree behind it.

For a start, the Maximus Duffel has been coated with a special plastic known as TPU, which makes it extra strong and impervious to oil, grease and all many of weather conditions. It's also virtually rip-proof, making taking it into the wild a far more comfortable notion. So you pack all the important gear profiled on these very pages and know it's not going to come spilling out thanks to a sharp stick or other issue.

At 90L (the range also goes as high as 150L in volume), the Maximus Duffel comes with plenty of room for your gear, as well as extra daisy chain straps on four sides to offer the option for an even larger capacity.

**Eddie Bauer First Ascent Maximus Duffel Bag**  
£120 | \$150 | [eddiebauer.com](http://eddiebauer.com)

### Super tough

The bag is coated in TPU, a form of plastic that's resistant to grease, oil and abrasion

### Daisy chain extras

The Maximus Duffel Bag comes with daisy-chain straps on four sides so you can easily attach additional gear when travelling



### Doubles as a backpack

You can extend the length of its straps and turn the Maximus Duffel Bag into a backpack

### Scoping it out

The Risen XLT 385 comes with a 4x32 scope, enabling you to pinpoint wild animal targets with precision at a distance



## HUNT WITH STEALTH, PRECISION AND STYLE

When the end times eventually descend, having a mechanical hunting tool that's both quiet and deadly accurate could be the difference between going hungry and dining on spit-roasted critter. Oh, and it makes you look like Daryl from The Walking Dead, so that helps, too. So for our money, the Risen XLT 385 from the folks at Southern Crossbow is a fine choice.

As the name suggests, the Risen XLT 385 fires bolts (sized 350 grains and above) at 385 fps (that's feet, not frames, per second), while its rock solid split limb design and swift, quiet cams will deliver a shot that's both stealthy and deadly accurate. The limbs are a compound creation, providing a dual-levering system that offers serious power that's easy to prime. The Risen XLT 385 also comes with a composite stock featuring a black rubber finish.

On top of that, the Risen XLT 385 package includes a foot stirrup, four field tip arrows, a quick-detach quiver, string wax and safety glasses. So if you're looking to up your hunting game in time for the end of the world, you'll struggle to find a better tool than this little beaut from Southern Crossbow. Just don't waste all your bolts fighting undead walkers, eh?

**Southern Crossbow Risen XLT 385 Crossbow**  
£565 | \$700 | [southerncrossbow.com](http://southerncrossbow.com)

### Anti-dry safety

The anti-dry fire feature will stop the crossbow from firing if it's primed without a bolt in place



### On the rails

This crossbow comes fitted with a Picatinny rail along the shaft of its body, offering the ability to fit a variety of accessories





# WORKSHOP

PROJECT  
01

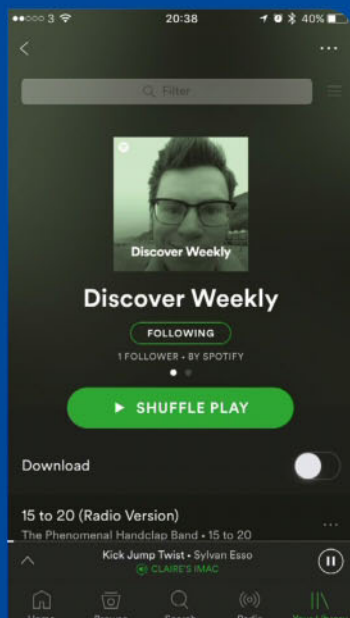
## DITCH iTUNES FOREVER

*Top tips to get rid of your least favourite Apple app*

Once upon a time, iTunes was revolutionary.

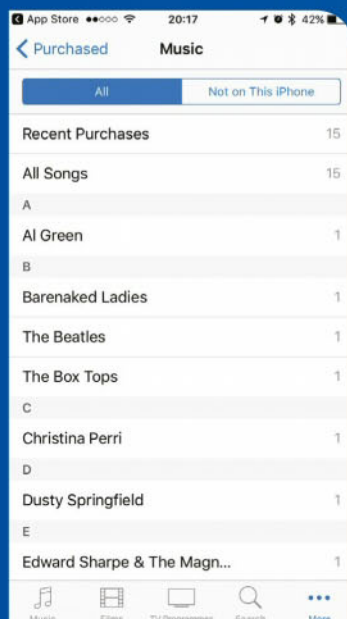
Back in 2003, Steve Jobs proudly unveiled the software with a beaming smile calling it “music downloads done right”. And it was, the iTunes Music Store – as it was then known – changed the way we buy and listen to music. However, in the 14 years since then, the desktop app has become a bloated mess, with an overwhelming number of features – movies, television shows, podcasts, apps and most recently a streaming service – crammed into it. This has turned iTunes in a space-suck with storage requirements that go far beyond the size of the files it hosts, which in turn helps make it slow to use, and – the ultimate crime for an Apple product – ugly to look at and difficult to use.

Despite users complaining about this for years now, Apple seems to have given up on iTunes. So it's about time we did the same thing. If you want to get rid of iTunes, but still have personal entertainment options own your iPhone and iPad, try one of these options.



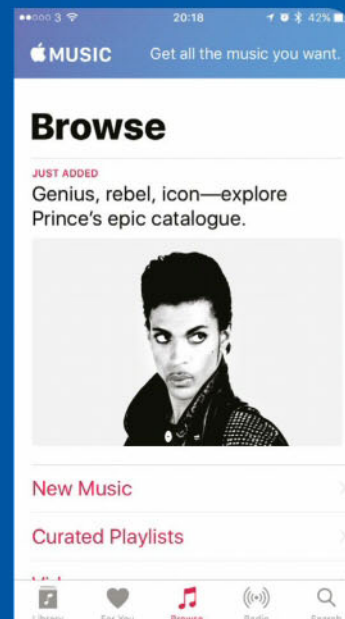
### 03 Apple is not the only fruit

As iTunes proves, Apple is not the be-all and end-all. You might find other services have better features. For instance, Spotify is better for latching onto new music – its Discover Weekly playlist serves up top picks based on your listening habits every Monday. If you're more interested in streaming video, try Netflix or Amazon Prime Video for all your boxset-binging needs.



### 01 Get the app

While the desktop version of iTunes is terrible, the iTunes Store app for iPhone and iPad has the right idea. It's just a shopfront where you buy songs, films and TV shows; you have dedicated Music and Video apps for consuming your media. In the iTunes Store app, tap 'More' then 'Purchased' to download content you've already bought from Apple to your mobile device.



### 02 Embrace Apple Music

If you don't have a vast collection of digital media, consider streaming instead. These are subscription-based, but offer a free trial period, and allow you to select your music from huge cloud-based catalogues. Apple Music is one such solution and its already bundled with your iPhone and iPad and bills you directly your iTunes account, so set-up is minimal.



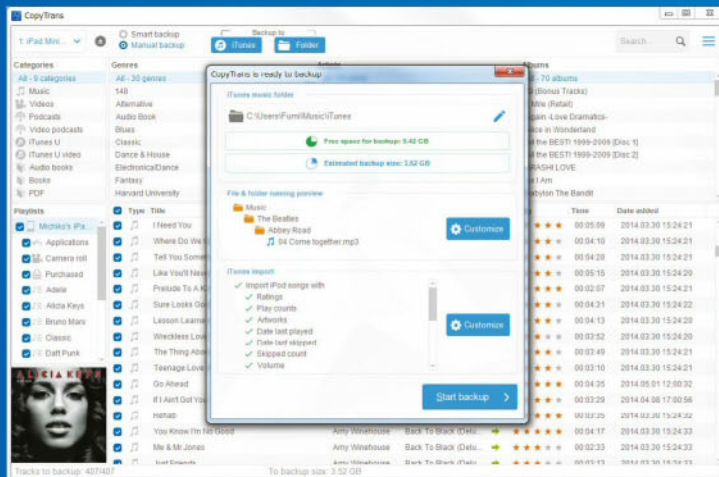
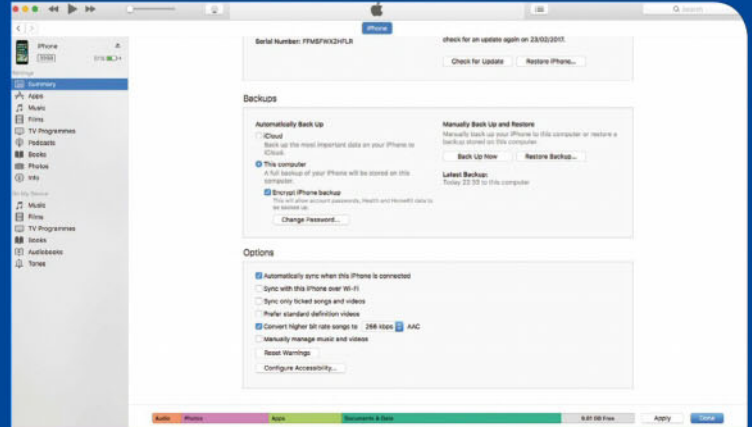
### 04 The 'walt-ernative' library manager

If you do already have a large library on your computer, it doesn't make sense to spend on streaming. Instead replace iTunes with a library manager like WALTR 2. Available for both Windows and macOS, just drag and drop your media files onto WALTR 2 on your desktop, and it will wirelessly transfer the titles into your iPhone's core iOS library in a flash.



# STOP iTUNES FROM OPENING AUTOMATICALLY

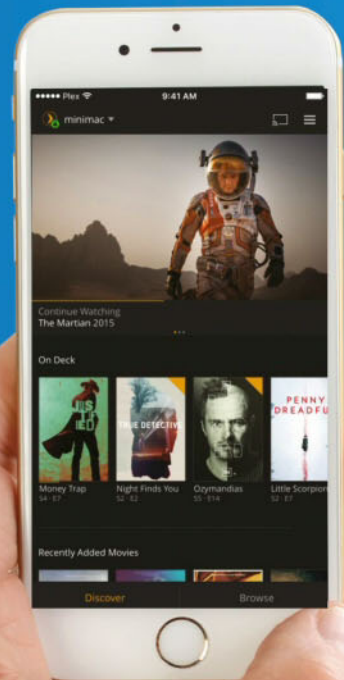
You can choose to stop using iTunes as your default way of managing your media, but if you tend to charge your iPhone, iPad or iPod by plugging it into your computer, iTunes will still automatically open every time you do. However, next time you plug your device into your computer and iTunes opens, click the device icon that appears just below the Play button. This will then display the 'Summary' tab, which will give you an overview of your device as well as list several options. Uncheck the tickbox next to 'Automatically sync when this iPhone/iPad/iPod is connected' in the listed options, then press the Apply button at the bottom of the screen.



**05 Cheaper transfer options** WALTR 2 is very impressive: it transfers music files (including hi-res audio), videos (up to 2160p 4K), iBooks as well as PDFs to your iPhone and they all appear in the right app. But WALTR 2 also costs £32/\$40. If that's too much, CopyTrans Manager offers just music transfer from desktop to iOS for £25/\$20.

## 06 Change media player

If you don't like the default Music or Video apps on your iPhone any more than you do iTunes on desktop, try a local media player. Instead of writing to your core iOS library like WALTR 2, a media player stores your files in their own app. VLC For Mobile and Plex are both great options, allowing you to micro-manage your files and stream them across multiple devices.





# WORKSHOP

PROJECT  
02

## RESTORE FADED FAMILY PHOTOS

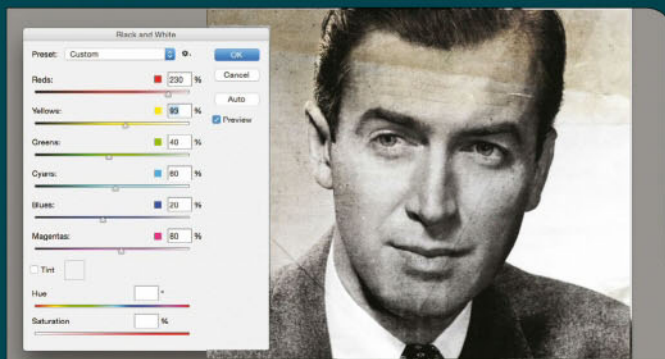
*Make vintage photos look as good as the day they were taken*

Our family photos offer a physical link to the past. These pictures allow us to put faces to names as well as view older relatives in a new light. But while future generations will be able to find drunken photos of ourselves with a simple search of Facebook, the physical prints we're currently inheriting are prone to have been damaged as they were passed down through the ages. Fortunately, we have the technology to rebuild them. Thanks to the magic of software such as Photoshop, we can restore photos that have naturally faded or have been scratched or torn. Obviously the end result won't have the high resolution of modern digital photos, but they will at least look the same or better than the day they were first taken.

The majority of these vintage photo fixes can be done with the Patch tool in Photoshop, but for the best results we suggest using a combination of tools as shown in this tutorial. Some of these tips can be done quickly and with ease whilst other require a bit more attention to detail and patience but with some trial and error you can get those photos looking good.

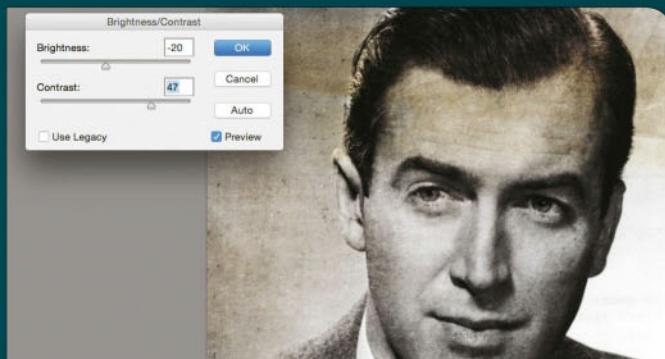


BEFORE



### 01 Colour correcting

A photo that has a tint can be corrected easily. If the image is monochromatic, go to 'Image' then 'Adjustments' to 'Black & White'; for colour images go to 'Image' then 'Adjustments' to 'Colour Balance' and from there move the sliders away from the offending colour to counter it.



### 02 Adjust contrast

An image's contrast is very simple to adjust, go to Image then over to Brightness/Contrast and move the slider left and right to the level that you want. There is also an Auto-Adjustment function that can do this for you.



## HOW TO PRESERVE YOUR OLD PHOTOS

### 01 Maintain their temperature

Avoid attics or anywhere else that the temperature will change constantly. Keep all photos in a cool, dry place as this slows down the rate of decay.

### 02 Frame them properly

If you are going to frame old photos, make sure it has UV conservation glass and keep them away from direct sunlight.

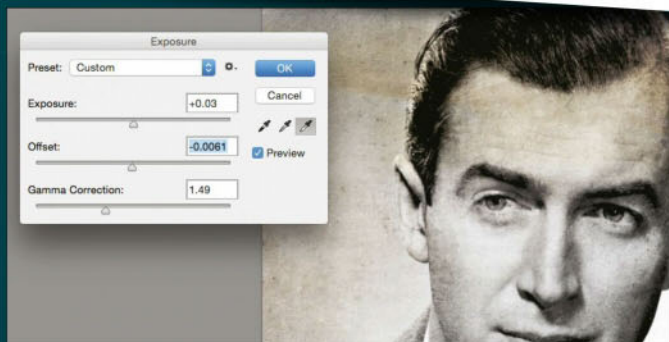
### 03 Pack them correctly

Use a container made from board or an envelope that's acid free or isn't buffered. It should also be a similar size so the photos can't move around whilst inside.

### 04 Use safe photo albums

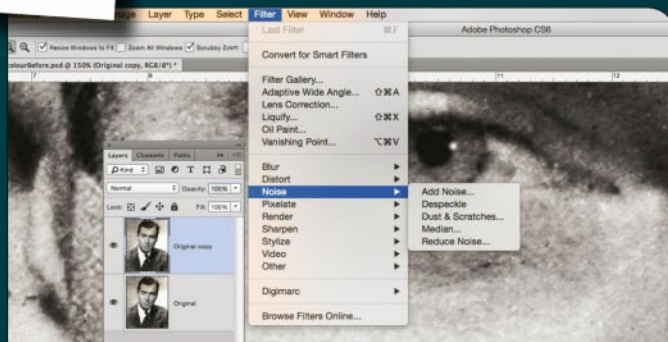
Avoid over-stuffing your photo albums, and you should use paper or envelopes that are acid-free or with plastic films, such as polyester or polypropylene.

AFTER



### 03 Adjust the exposure

Altering the exposure of the image will affect the lightness or darkness of image, affecting the shadows, highlights, mid-tones etc.. Go to 'Picture' to 'Shadows/Highlights' and adjust the levels. If one area is particularly bright create a new layer and paint black with a soft-edged brush on a low opacity.



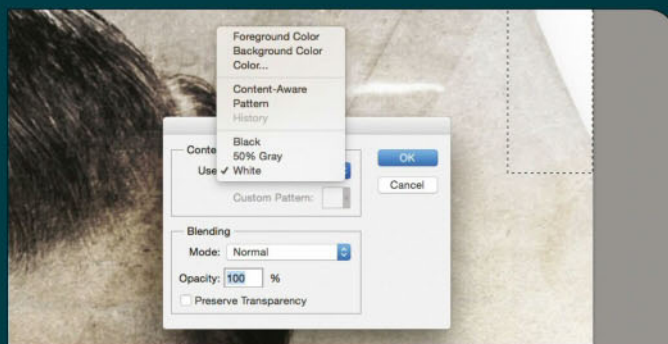
### 05 Get rid of dust and scratches

Create a new layer and go to 'Filter' then 'Noise' and to 'Dust & Scratches' then make adjustments where necessary. This filter can blur objects so to correct this, use the Quick Selection tool around the subject and then a layer mask to reveal the original subject underneath. Any other spots can be corrected with the spot healing brush or Patch tool.



### 04 Remove Creases or folds

Select the Patch tool and use it along the crease a small section at a time. For any areas that are have a pattern or when it changes from one piece of clothing to another use the Clone Stamp tool. A crease that is on the background or low-detailed area can easily be mended using the Spot Healing Brush tool.



### 06 Repair any damage

Duplicate the original layer and use the Polygonal Marquee tool to select around a rip. Go to 'Edit' to 'Fill' then over to 'Contents' and select 'Content Aware'. If this doesn't work correctly adjust the selection. The Clone Stamp tool copies pixels from one area and applies them to another, this works well for backgrounds.



# WORKSHOP

PROJECT  
03

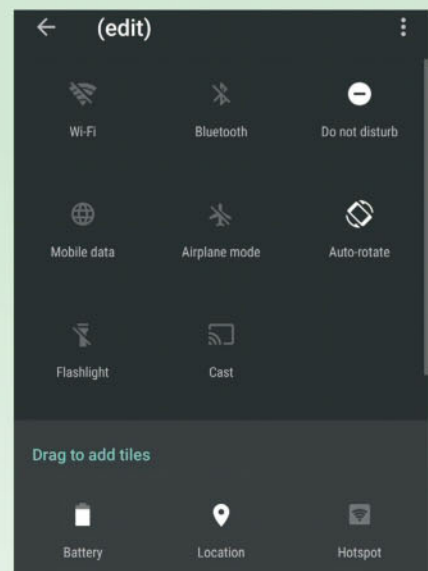
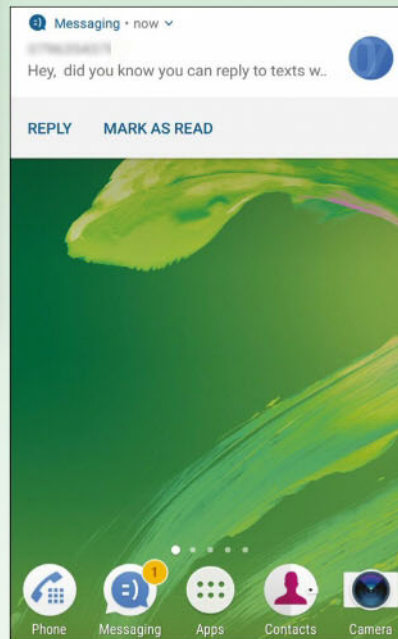
## 7 TIPS TO MASTER ANDROID NOUGAT

*Sweetest features of latest Android update revealed*

**Android 7.0 is Google's big refresh of its phone and tablet operating system.** Also known as Android Nougat (Google has a sweet tooth – previous updates include Lollipop and Marshmallow), this update is feature packed with multi-screen support, smarter battery management and even virtual reality built-in. However, despite launching last August, many Android users still haven't had the Nougat update. This is due to delays by manufacturers and even phone carriers, who have to check Google's complex updates are compatible with their devices. But last month Android 7.0 finally crossed the 1 per cent adoption rate, so let's celebrate with this guide to its best features.

### 01 Direct reply notifications

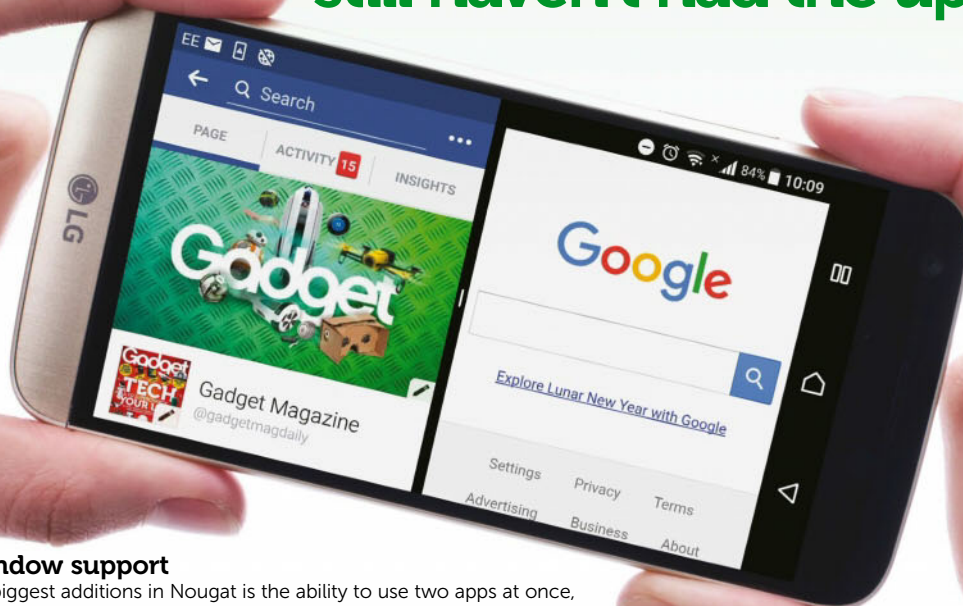
Apps such as Facebook Messenger and the standard Messenger app now allow you to reply from the notifications. Pull down the notifications and tap a message, it will say Reply on the bottom-left corner; when pressed, you can type your message without having to go into the app.



### 02 Smarter settings

Nougat has added a quick settings menu at the top of the screen. Wi-Fi, Bluetooth, Airplane Mode and more can all be turned on and off just by sliding a finger down from the top of the screen and tapping on the appropriate icon. Slide down again to access the settings for these options. What appears on the quick setting menu can be changed by pressing the edit button, holding on an the icon and dragging it up.

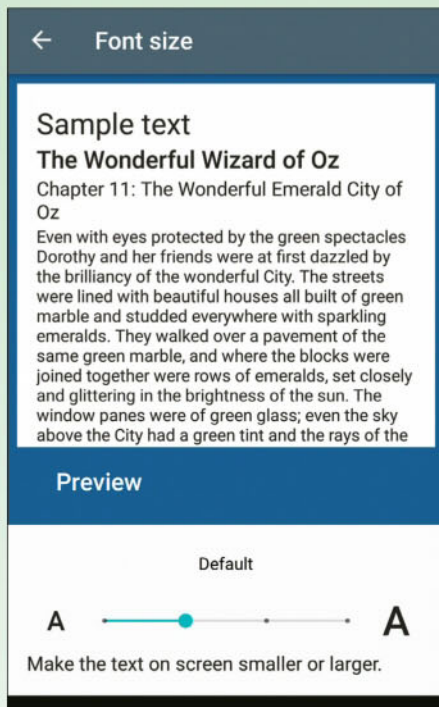
## "Despite launching last August, many Android users still haven't had the update"



### 03 Multi-window support

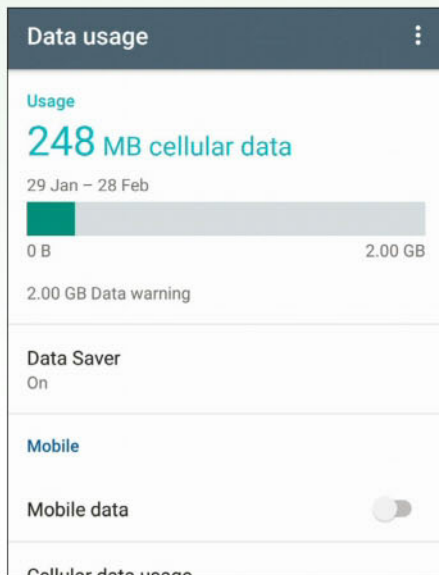
One of the biggest additions in Nougat is the ability to use two apps at once, allowing for things such as watching videos on the YouTube app whilst keeping up to date with Facebook. To do this, press the 'Recent Apps' button and click and hold an app, when the phone vibrates you can then drag the 'blade' to the top of the screen then press on the other app you wish to have open. Not every app supports this feature, if you try to drag it to the top, a notification will let know you if it won't work.





## 04 Changes to interface

The size of font and app icons can be changed in the settings, which you can find under 'Display', and in the wallpaper settings lock screens get their own wallpaper instead of having to use the same one as the home screen, much like iOS.



## 06 Save your data

By going to 'Mobile Data' and clicking on 'More Settings' you can access the 'Data Saver' feature. This restricts the amount of mobile data used by apps in the foreground as well as the background. We'll use Twitter as an example, with data saver on it won't update your feed in the background and when you load it, it may only load the feed, it won't load images unless you tap on them.

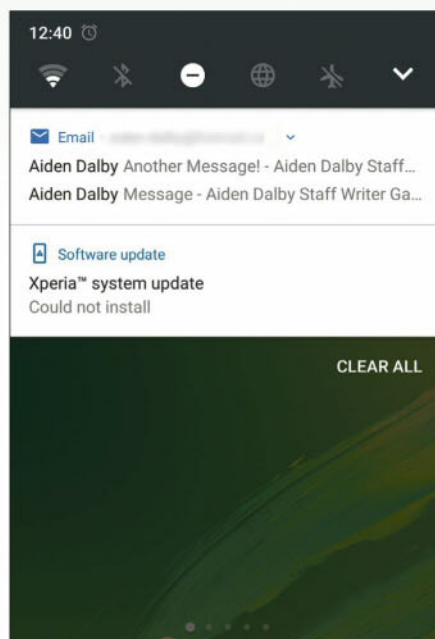
## 05 Get a better battery

Introduced with Marshmallow, Doze is a power-saving feature that puts the device into sleep when it isn't being used, but originally it would only start if the phone wasn't moving. With Nougat, Doze has been improved to keep any power usage by apps to a minimum even when on the move. Just go to the battery options in Settings to activate it. Sony devices seem to lack this and instead has STRAMINA mode, this can be left on at all times or only when battery level reached 15 per cent.



## 07 Bundled notifications

Instead of having multiple notifications from the same app they are now all displayed in one 'big' notification that can be expanded by pressing the tab and dragging down. For example, emails will be kept in one tab and when pulled down each email gets its own tab.



## UPGRADE YOUR ANDROID

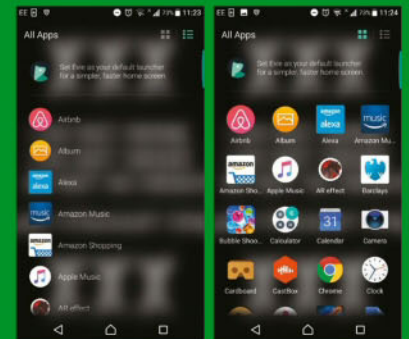


### Enjoy VR on the go

Watch 360-degree videos, play games and take virtual tours with the google's latest foray into the VR market: the Daydream headset. It is made from lightweight and comfortable fabric so its more comfortable than other portable VR headsets available on the market.

#### Daydream View

£70 | \$80 | [google.com/daydream](http://google.com/daydream)



### Give your phone a facelift

If you're not a fan of Android's interface and want to give it a makeover or download a new launcher. Evie removes all clutter from the home screen and introduces a search bar at the top that makes it easy to find all apps and contacts.

**Evie Launcher**  
 Free | [evie.com](http://evie.com)



### Smart Phone Camera

This wireless lens camera has 30x optical zoom, a 20MP sensor and is controlled using your smartphone so you can take great pictures with it clipped on to your device, or you can place it somewhere else and activate it for a great selfie.

#### Sony DSC-QX30

£250 | \$315 | [sony.com](http://sony.com)



# WORKSHOP

PROJECT

04

## LONG-HAUL FLIGHT HACKS

*Make even the lengthiest journey a breeze*

When you are facing a lengthy flight, there are certain little helpers that can make your hours in the air a lot more comfortable. The following carry-on kit on these pages will help take (some) of the stress out of flying, with smart and innovative ways to keep your luggage safe, get some sleep and fight jet lag at the same time, as well as keep you entertained when the aircraft cabin fever starts to set in.

Picked by a mix of our own tech and travel experts, these gadgets have been rigorously tested during a 12-hour flight to the States, from London Gatwick to Las Vegas with a layover in scenic Detroit.

As a bonus, we've also included the essential app store picks for both iOS and Android to make the most of before you fly, so you get the best price for your flight and know which seat on your plane is the most comfortable.

## "This carry-on kit will help take (some) of the stress out of flying"

### Automatic locking

Proximity sensors automatically bolt the luggage if it leaves your side, while the lock is also TSA-compliant for seamless security checks

### Location tracking

The case is equipped with 3G cellular data (free of charge) and GPS, so you can pinpoint precisely where it is even if you're out of Bluetooth range

### Battery charger

As well as storing 34 litres of luggage, somehow this case manages to squeeze in a 10,400 mAh capacity battery pack. That's enough to charge your phone up to six times

### Digital scale

There's no need to pay at the airport to weigh your bags, this case has its own built-in scales

£400 | \$450

[bluesmart.com](http://bluesmart.com)

### Bluesmart One

The ultimate carry-on, this smart suitcase is packed with a dazzling array of features, such as a digital scale and location tracking, most of which you control with a free app.







### DON'T LOSE YOUR LUGGAGE

If you can't afford the Bluesmart One, the Tile Mate offers the reassurance of location tracking for a fraction of the price. Powered by Bluetooth, it doesn't have quite the same range (even if it can piggy bank its signal off other devices), but is ideal for finding your bags on the luggage carousel.

**Tile Mate | £25 | \$25 | [thetileapp.com](http://thetileapp.com)**



### CURL UP IN COMFORT

Though it may look like everyday loungewear, the Koala Hoodie is the traveller's sartorial Swiss Army knife. Its 15 features include a padded hood for extra comfort with flip-down eye mask; a removable neck pillow; a built-in phone charger; and zip-up pockets for storing your passport.

**Koala Hoodie | £110 | \$140 | [koalahoodie.com](http://koalahoodie.com)**



### IMAX-IMISE YOUR IN-FLIGHT MOVIE

Instead of watching films on the tiny monitor built into the seat in front of you, don a VR headset and you can watch movies as if you're getting a private screening in a simulated cinema. The Samsung-branded goggles work with both Galaxy S6 and S7 phones.

**Samsung Gear VR | £80 | \$100 | [samsung.com](http://samsung.com)**



### GET RID OF JET LAG

This smart sleep mask uses coloured LEDs and light therapy principles to adjust your biorhythms, so you can fall asleep faster or wake up with an added energy boost. It's Jet Lag Blocker feature can also help adjust your body clock to the timezone of your destination.

**Neuroon Intelligent Sleep Mask | £320 | \$300 | [neuroon.com](http://neuroon.com)**



### BLOCK OUT EVERYTHING ELSE

Bose's QuietComfort 35s live up to their name, with noise-cancelling tech that measures the noise around you – such as the whirr of the engines or snore of other passengers – then uses an opposite signal to block them out. The noise-cancelling function works even when not playing music.

**Bose Quiet Comfort 35 | £330 | \$350 | [bose.com](http://bose.com)**



### MIX DRINKS AT 35,000FT

Fancy an Old Fashioned or perhaps a G&T? The Carry On Cocktail Kit is a pocket-size tin containing everything you need to whip up a mid-air aperitif, including a recipe card, spoon and ingredients for two drinks. All you have to do is ask the flight attendant for your spirit of choice.

**Carry On Cocktail Kit | £20 | \$25 | [wandpdesign.com](http://wandpdesign.com)**

## HIGH-FLYING TRAVEL APPS



#### Sky Scanner

Got wanderlust, but don't know where to go? Just type 'Everywhere' into the search bar to view low price flights worldwide.

**[skyscanner.com](http://skyscanner.com)**



#### Seat Guru

Once you have your flight details, head to Seat Guru to read user reviews and find out which seats have the most legroom or have charging points.

**[seatguru.com](http://seatguru.com)**



#### FlightTrack 5

FlightTrack 5 colour-codes your flights so you can know at a glance if you need to perform a mad sprint to your gate.

**[mobiata.com](http://mobiata.com)**



#### Jet Lag Calculator

This site does some clever maths to work out a sleep schedule that will help adjust your body clock to a new time zone.

**[bit.ly/2db95Gj](http://bit.ly/2db95Gj)**



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## No lockout chip

Unlike the NES, the Famicom didn't have a lockout chip, this led to a large number of bootleg games being sold throughout Asia

## Easy ejection

The lever wasn't necessary to eject games but designer Masayuki Uemura felt kids would find it fun to use

## Controller cords

The Famicom's controllers were hardwired to the system and the cables were only 18 inches long

## Home to classics

Many of Nintendo's famous franchises started on the Famicom such as Super Mario Bros. and The Legend Of Zelda

## Front port

The accessory port was used by a number of peripherals such as extra controllers, microphones or the Famicom 3D system

## Player two

The second controller lacked a pause button but it had a built-in microphone that a few games took advantage of

# Whatever happened to... Nintendo Famicom

*The console that made Nintendo a household name*

After a number of successful arcade titles, in 1983 Nintendo launched the 'Family Computer', or, as it was later dubbed, the Famicom. We know it in the West in a redesigned form: the Nintendo Entertainment System. The original console was designed to be as cheap and convenient as possible, which led to decisions such as wiring the controllers directly to the console and making the cartridges the size of cassette tapes. The Famicom went on to sell over 19 million units and had a number of peripherals such as a Modem, 3D Glasses and the Famicom Disk system that used floppy disks for its games. Many of the console's games are played today on current Nintendo platforms such as Nintendo's Virtual Console or its Nintendo Classic Mini range.

## Fact file...

Year of launch: 1983

- *Finale of M\*A\*S\*H* airs with 125 million people watching
- *Microsoft Word* is launched
- *Star Wars Episode VI: Return Of The Jedi* hits cinemas

"We decided its sole function was to play videogames" – Masayuki Uemura, designer

## Buy one today

• Original Price: £75 | \$100 • Price Today: £50 | \$120

If you're living in Europe, there are a couple of hurdles to overcome when importing the Famicom from Japan. Firstly, you will need to find a 'step down' power supply as the voltage will be different, and the Famicom outputs through RF signal which won't work on a PAL TVs. You could send the console to someone who can modify it but this could add a lot to the overall cost. If you don't want to go through that legwork, an easier option is to import the Nintendo Classic Mini: Famicom, a miniature version of the Famicom with 30 games built-in. This has HDMI output and is powered by USB so there should be no issue with region differences.





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