

→ YOUR SUMMER GADGET SPECTACULAR!

# T3

The Gadget Magazine

WORN AND RATED!  
**HTC VIVE**  
↓ WHY WAIT FOR OCLUS RIFT?  
DIVE INTO VR RIGHT NOW!



**APPLE WATCH 2**  
**+ iPhone 7**  
→ WHAT WE KNOW...  
AND WHAT WE WANT!

# THE BEST TECH

FOR

# EVERYTHING

→ YOUR NEXT GADGETS! THE NEW KIT YOU MUST HAVE FOR A SUMMER OF SPORT, PARTYING, DRIVING AND MORE



*will.i.am*  
**DIAL**

→ FIRST LOOK: THE WEARABLE EVERYONE IS TALKING ABOUT

**GOOGLE'S FUTURE**  
HOW THE TECH GIANT WANTS TO CONTROL YOUR HOME, PHONE, WRIST AND MONEY

**e-BIKES**

→ THREE WORLD-CLASS E-CYCLES ROAD TESTED TO THE MAX

ISSUE 257 JULY 2016 PRINTED IN THE UK £4.99  
Future 07>  
9 771364 264131

£75 HIGH-END HANDSET / UHD BLU-RAY PLAYERS / PEBBLE'S FITNESS FAMILY

# No sweat!

CONQUER ANY JOURNEY WITHOUT GETTING YOUR BEAD ON, WITH THE HELP OF A HI-TECH ELECTRIC BICYCLE...

**F**OR MANY PEOPLE, CYCLING IS THE PURIST FORM OF TRANSPORT THERE IS, WITH FRESH AIR (WELL, KIND OF) AND EXERCISE BEING JUST TWO OF THE REASONS TO LEAVE THE CAR AT HOME. BUT NOT EVERYONE WANTS TO TURN UP TO WORK LOOKING LIKE (SIR) CHRIS HOY AFTER HE'S COMPLETED A FEW LAPS OF THE VELODROME - ESPECIALLY IF THERE ARE NO SHOWER FACILITIES AT THE OFFICE.

And it isn't just working life that 'conventional' cycling isn't always suited to. With the UK being a hilly, not to mention windy, country, having to pedal all the time can make days and weekends out quite arduous.

That's where electric bicycles come in. Offering battery-powered assistance, they give just about anyone the ability to get on a bike and get where they need to go, with minimal fuss. And they're safe, too, with a top speed of just 15.5mph.

What's more, electric bikes have come a long way from the ugly, 'battery-strapped-to-scaffolding' look of old, and now offer a stylish aesthetic - not to mention quick charging.

Here, T3 has picked three of the best electric bicycles on the market right now. Read on and get ready for the ride of your life...

Words: Nick Odantzis Photography: Neil Godwin



## WHAT'S ON TEST...



**1** HAIBIKE XDURO URBAN RC  
→ The most conventional electric bicycle of the bunch, this boasts Bosch power and some smart touches.  
**Price:** £3,199 **URL:** e-bikeshop.co.uk



**2** GOCYCLE G3  
→ It's the priciest ride here, but a slick design and supreme portability make this the go-anywhere bike.  
**Price:** £3,299 **URL:** gocycle.com



**3** ETT TRAYSER  
→ Futuristic looks suggest futuristic abilities, but can the Trayser offer them at this price?  
**Price:** £1,700 **URL:** ettindustries.com



→ TEST 01:

# DESIGN

Do you want funky, practical or dynamic? Let's check them out...

**B**ikes all look the same, right? Well, if these three are anything to go by, they couldn't look more different. Heading up the pack with its unique, somewhat divisive, looks is the Trayser - never will you go anywhere on two wheels and garner so much attention. Riding it, you feel like a celebrity - though nobody's interested in *you*. The look of the bike isn't merely a ploy to grab stares; the design is modular, enabling you to upgrade the heart of the bike - the battery - as you go. So in a year's time, when there's a battery that's lighter and has more range, you can simply take out your old one and swap it in, so you get future style *and* future proofing. And that's not all - you'll also be able to 3D print your own customised bits for the Trayser, such as the mini mudflap you can see in the pictures, enabling you to create your own, personal version of the bike.

The Gocycle G3 is similarly unusual to look at, but purpose lies at its roots - with its mini-bike proportions and ability to fold

## The G3's party piece is its *Knight Rider*-style dash, with simple LEDs for information

down, *a la* the Brompton, you can take it with you just about anywhere. The battery is neatly integrated into the frame, for clean looks, and the quick-release, single-sided mag wheels are slick as hell. But the Gocycle's party piece is its *Knight Rider*-style dash, which uses simple LEDs to show you things like how much charge is left and which gear you're in.

More conventional in its appearance, but no less impressive, is the Haibike xDuro, which is packed with the latest Bosch tech. People will know you're riding electric with its downtube-mounted battery, which can be easily removed, enabling you to charge it at home without lugging your bike inside. The overriding matte-black theme looks menacing, while the frame has some neat touches, like having the cables hidden inside for smoothness (and weather-proofing), and powerful integrated lights - easily activated by the handlebar-mounted thumb controls.

### HAIBIKE XDURO URBAN RC



ABOVE It looks rather like an ordinary bike, but scratch beneath the surface and you'll find integrated lights and a Bosch computer

### SPECS

<b>FRAME:</b> Aluminium 6061, hydro-forced tubes, gravity-casting interface	<b>WHEELS:</b> Crank Brothers Cobalt 1	<b>BATTERY:</b> Removable Bosch 36-volt, 500Wh
<b>BRAKES:</b> Shimano M615 hydraulic disc brakes	<b>TYRES:</b> Schwalbe Marathon Supreme 700 x 32c	<b>MOTOR:</b> Mid-mounted
	<b>GEARS:</b> Shimano ten-speed (chain)	<b>RANGE:</b> Up to 140 miles
		<b>WEIGHT:</b> 18.2kg

## LICENCE TO PRINT

One of the Trayser's best features is the ability to 3D-print extras for it yourself

→ETT has partnered with online 3D-printing shop Shapeways.com, so you'll be able to buy 3D-printed accessories for the Trayser - but where's the fun in that?

Instead, get yourself a 3D printer (or find a mate who's got one) and print them yourself, for a lot less cash and in whatever colour you want. Go to ettindustries.com,

click on Future Factory in the menu, and you'll find .stl files for a funky mini rear mudguard, as well as a front brake clip, which you can download for free. The real fun begins when you start using a 3D-modelling program like Autocad, and design your own parts to really pimp out your bike and make it unique!

GOCYCLE G3

ETT TRAYSER



ABOVE The only folding bike here, with cool touches like the centre stand, and adjustable seating/handlebar position

ABOVE Futuristic style with future-proof features - 3D-printed parts give you ways to customise, like this mini rear mudflap

SPECS

SPECS

**FRAME:** Folding magnesium, with Universal Vgonomic  
**TYRES:** Gocycle 20 x 1.75in  
**GEARS:** Cleandrive Shimano Nexus three-speed with predictive shifting (chain)  
**BRAKES:** Hydraulic discs  
**WHEELS:** Magnesium, quick-remove  
**BATTERY:** 22-volt, 300Wh  
**MOTOR:** Front-hub-mounted  
**RANGE:** Up to 50 miles  
**WEIGHT:** 16.3kg

**FRAME:** Aluminium monocoque  
**TYRES:** Duro 28 x 2in  
**GEARS:** Single-speed Gates Carbon Drive (belt)  
**BRAKES:** Tektro duel-piston calliper  
**WHEELS:** 700c  
**MOTOR:** Rear-hub-mounted  
**RANGE:** Up to 60 miles  
**WEIGHT:** 27kg  
**BATTERY:** 42-volt, 840Wh

POWER CONVERSION

Can't afford to buy an electric bicycle? There's a solution, and you can get it now

→ Perhaps you're not ready to hand over a wad of cash to get on the electric bandwagon, or maybe you're particularly fond of your current steed. Either way, you can add a power aid that addresses both of the above: the GeoOrbital Wheel (geoo.com) simply replaces your front wheel (a 60-second job) and contains everything

needed to power you along for up to 50 miles. Available on Kickstarter now, it costs just £500, but the issue at the moment is that it's built for US customers; its 20mph speed limit makes it illegal to use on UK roads. Fingers crossed they'll make a Euro-specific version in the not-too-distant future.

T3 Test 01 winner

GOCYCLE G3

→ The mini-bike style might not be for everyone, but there's clearly been a huge amount of effort put into the G3's design - it's a peach

→ TEST 02:

# POWER

This is why you're here - to find out what the guts of the bikes are like

**A**ll three bikes stand out for their looks, but when it comes to electric power assistance, they're equally unique. For starters, the Gocycle G3 hides its battery - the smallest and lightest of the bunch - within its frame, yet still easily delivers a handy 50 miles of range in mixed riding conditions. It also features - again hidden within a shroud for neatness and zero-maintenance weather protection - a Shimano Nexus three-speed chain-driven gear system. This gives it a nice range of power, making easy work of bigger gradients and keeping cadence under control on long straights. The G3's trump card is its app, which enables you to connect to the bike and tailor the power delivery to your liking, with various preset riding modes. There's also a custom option, which lets you create a power map to suit your exact needs. For instance, you can increase power at lower RPMs, sacrificing battery life, or keep it in reserve for hills when you need extra power, which increases range.

## In Touring mode, the Haibike is good for a rangey 100 miles

The Haibike utilises trick Bosch electric gubbins, and though the 500Wh battery sits in the middle capacity-wise, the German manufacturer's expertise in this area shows: with the motor nestled in the crank, just beneath the battery, there's less energy wastage as you pedal along. In Touring mode (power level 2 of 4), you get plenty of assistance, but the battery life is good for a rangey 100 miles. The conventional-style wide-ranging rear cassette gives you plenty of gears to play with, so you can tackle any scenario - from short town rides to longer tow-path touring.

With a colossal 840Wh battery inside its trick frame, the Trayser has plentiful capacity, but it's also the most zealous bike here, with a yield of just 60 miles thanks to 42 volts that rip through the amp hours. It's probably for the best, given that the belt-driven single speed is only usable around town anyway; up hills, the gearing is too low for the power assistance to kick in fully. On the flip side, it absolutely flies down straights without feeling undergearing.

HAIBIKE XDURO URBAN RC



**TOP** A mid-mounted Bosch motor is neatly integrated and gives lots of uphill shove  
**ABOVE** The lockable Bosch unit is the only battery of the three that can be removed and charged indoors  
**LEFT** The xDuro's integrated lights can be activated with the touch of a button on the handlebar controls

## WATT THE HECK IS THIS?

Volts/amp hours/watt hours - it's all voodoo, but battery tech is worth checking out

→ While electric bicycles are speed-limited (read right), their batteries differ depending on where the battery is mounted on the frame and what the bike's intended use is. A bit of

a crash course in battery tech: volts equate to the power of the battery - the more it has, the more powerful it is. For example, the Trayser has the most powerful battery, at 42V.

Then there's amp hours, which is essentially how much charge it has - its capacity. Again, the Trayser has the largest, at 20AH. Combine these two and you get watt hours. The Trayser has the highest number - about 840Wh - but as it's so powerful, it's also thirsty, so you don't get much range.

GOCYCLE G3

ETT TRAYSER



**TOP** Quickly removable wheels enable you to fold this bike down in just a few minutes  
**ABOVE** Rear suspension gives the Gocycle a particularly comfortable ride  
**LEFT** Via the Gocycle app, you can easily tailor your ride to suit any circumstance, with modes for more power or better range



**TOP** The belt-driven single speed gives the Trayser maintenance-free power, but it can struggle on hills  
**ABOVE** The battery is neatly hidden inside the frame, and can be removed and upgraded  
**LEFT** If your gadgets run dry, you can tap into the Trayser's battery reserves with this handy USB charger

NOT TOO UNLIMITED

Electric cyclists are dirty cheats who want to overtake us honest pedal-pushers, right?

→ At present in the UK, all EPACs (or electric pedal-assisted cycles, for long) are restricted on public roads or cycleways to 15.5mph. That might seem a little stingy to those of you who are

used to riding at beyond 20mph with ease, but remember - it's all about average speed, and you can easily average 15.5mph all day long, something that's much harder to do on a normal

bike, when hills, wind or a session in the pub come into play. The Haibike xDuro is the only bike on test with gearing long enough to let you breach this limit without pedalling like an absolute maniac - but once the electric power cuts out, you'd better get those quads/hamstrings/calves ready for the effort involved!

**T3** Test 02 winner  
 HAIBIKE XDURO  
 URBAN RC

→ The G3 has the smarts, but the xDuro edges it with huge range and the ability to ride fast in any situation

→ TEST 03:

# RIDE

They've all got the power, but how well do they cope on the road?

**L**et's cut to the chase: each of these bikes has a different purpose – and rider – in mind. While the Trayser is certainly powerful, the downside to its big battery is heft. At 27kg (almost 9kg more than the Haibike), you won't be slinging it over your shoulder. The weight, combined with the gearing, can be felt up hills, so it's definitely more of an inner-city bike. Hopefully, your home town has smooth roads because, despite those fat, cushy tyres, the ride is harsh and its low bars give your palm nerves a workout with the saddle raised. Usefully, ETT offers riser bars to add comfort. Though the Trayser rocks hydraulic disc brakes, they feel a little underpowered, especially with that extra weight to haul to a stop.

At 18.2kg, the Haibike feels featherweight in comparison. It also rides pretty much like a normal bike – comfortable (apart from the Brooks saddle – thankfully, this can be changed) with an ergonomic on-bike position, superb hydraulic brakes and loads of grip,

## At 27kg, the Trayser is 9kg heavier than the Haibike, and you really feel it

no matter what the surface. The only real downside is that the frame doesn't come with mudguards – but that's an easy fix at a later date. With the optional Bosch Nyon computer, you get niceties like a huge 4.3-inch colour screen, which gives you loads of information while you ride, including turn-by-turn directions – though, annoyingly, it doesn't highlight cycle routes – one for a future update.

Clearly designed for commuters and leisure pursuers, the G3 is arguably more versatile than the Haibike. The folding frame is a boon, though it's too time-consuming and fiddly to do it every day. That aside, it's stunning to ride – light and comfortable, with strong brakes, though those small wheels struggle with big bumps. The dash is intuitive and easy to use, while the motorbike-style twist-and-go throttle gives you pedal-free power (on private land). If you get the optional Commuter pack, you gain easy-fit mudguards (as well as the aforementioned front and rear lights), which complete this useful package.



### HAIBIKE XDURO URBAN RC



**TOP** It's a pricey optional extra, but the big, beautiful Bosch computer is worth every penny

**ABOVE** The Brooks saddle is a luxury touch, but it certainly won't suit every *derriere*

**LEFT** Handlebar-mounted controls give you easy access to all the major functions, like power adjustment

## WHEELIE GOOD RIDE

All three bikes here have different electric-motor locations. Does it make a difference?

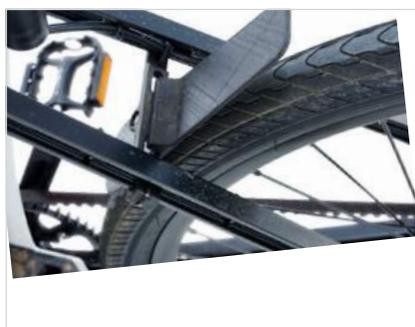
→ Different electric-bicycle manufacturers use different types of motor – and they each have their pros and cons. The Trayser has its motor housed in the rear wheel hub. This gives

good traction (with weight over the rear wheel), and it's simple to install. The Gocycle, in contrast, has the motor in the front wheel, which effectively gives the bike

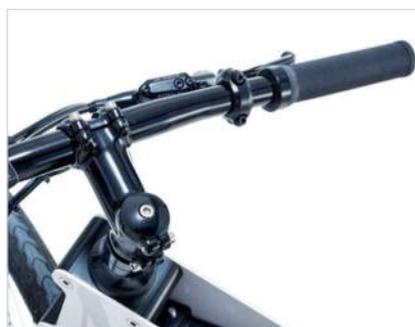
all-wheel-drive, for better traction in all situations, as well as good weight distribution. The Haibike has a mid-mounted motor, so power goes directly to the drivetrain, offering good performance when going up hills; and since the weight of the motor is low and evenly distributed, the bike handles better.

GOCYCLE G3

ETT TRAYSER



**TOP** The funky dash looks a bit alien, but it's really easy to read  
**ABOVE** A handy slot underneath the saddle hides an allen key for making quick adjustments on the fly  
**LEFT** Folding the G3 is tricky at first, but easy once you know how - and makes the bike great for transporting



**TOP** The Trayser's computer is easy to read and adjust when you're on the move  
**ABOVE** The rear saddle mount looks incredible  
**LEFT** Though the monocoque frame shouts 'premium' cool, for the most part the bike is made up of fairly basic bits - the handlebars, for example

KEEP THE JUICE FLOWING

Batteries don't last forever, but you can increase their lifespan with these easy tips

→ Most gadgets these days are battery-powered, and you probably already know that after a while, when they've recharged a certain amount of times, they slowly start to lose

their maximum charge - so you get shorter battery life. It takes a while for this to happen, but if you've invested in something expensive, you want to do everything you can

to make it last as long as possible, yeah? There's an easy way to increase your bike's battery life: keep it topped up after every ride, as batteries don't like to sit without charge in them. They don't like moisture either, so keep yours indoors, or fit a protective cover (like the one for the Haibike).

T3 **Test 03 winner**  
 HAIBIKE XDURO  
 URBAN RC

→ It's comfortable, practical (aside from the lack of mud guards) and feels fantastic to ride in any situation

## T3 Verdict

# The overall winner is...

## 1st Haibike xDuro Urban RC

PRICE: £3,199 URL: [e-bikeshop.co.uk](http://e-bikeshop.co.uk)

**T3 RATES:** The Haibike offers a perfect blend of power and battery life, with optimum gearing to suit. It also looks great and is fantastic to ride – even more so with the optional Nyon computer. Garage-dreamers will love the removeable battery.

**T3 SLATES:** A lack of mudguards is annoying; the standard saddle isn't very comfy; it's a little pricey.  
**T3 SAYS:** Once you've ridden the Haibike, you'll never want a normal bike again.



T3  
★★★★★  
PLATINUM  
AWARD

## 2nd Gocycle G3

PRICE: £3,299  
URL: [gocycle.com](http://gocycle.com)

**T3 RATES:** Great to ride; packable; good range; app smarts make it easy to use.  
**T3 SLATES:** Folding isn't Brompton-quick; it's the priciest bike here.  
**T3 SAYS:** A stunning, well-built portable electric bike.



## 3rd ETT Trayser

PRICE: £1,700  
URL: [ettindustries.com](http://ettindustries.com)

**T3 RATES:** Wacky, space-age design; powerful; future-proof battery system.  
**T3 SLATES:** Heavy, with a harsh ride; hills are a struggle.  
**T3 SAYS:** Fundamentally flawed, but its bold, unique features deserve attention.



## FIVE ESSENTIAL ELECTRIC-CYCLING ACCESSORIES



### CYCLIQ FLY6

→ Getting harassed by other riders or drivers? Then you'll want the Fly6. With this rear-facing camera – which also doubles as a rear light – you can capture the footage, then (a) take it to the plod, or (b) post it to YouTube to shame said harassers. It also has an Incident Mode, which automatically saves footage in the event of an accident. **£99; [cycliq.com](http://cycliq.com)**



### GIRO SUTTON MIPS HELMET

→ Whatever you do, protect your bonce with a decent lid like the Giro Sutton, which has MIPS built in. What is this unfamiliar acronym, we hear you ask? It's a cunning bit of safety tech designed to reduce rotational forces in an impact. Nice, eh? It also has a shade for sunny days and a clip to fit a rear light. **£74; [wiggles.co.uk](http://wiggles.co.uk)**



### VULPINE COTTON RAIN TROUSERS

→ No matter what the time of year, here in the UK you're guaranteed abysmal weather for about 364 days of it – so it's a good idea to have some trousers that protect against the rain. Don these waterproof trousers from Vulpine, which look rather fetching whether you're on or off the bike. **£139; [vulpine.cc](http://vulpine.cc)**



### RAPHA HOODED RAIN JACKET

→ You've got your bottoms sorted, but you might also want a weatherproof coat. Here at T3, we love this Rapha stunner. Its light weight and breathability are ideal for spirited rides, while the hidden hi-vis drop-tail gives you extra visibility when you need it. It'll look cool when you're not cycling, too. **£230; [rapha.cc](http://rapha.cc)**



### SKYLOCK

→ Available from July, the Skylock offers a rather clever way of keeping your shiny and hugely expensive electric bike from getting pinched, with handy key-free Bluetooth unlocking and alerts delivered to your phone if someone should attempt to bypass your ingenious security system. Just don't go and lose your phone, OK? **£179 (€122); [skylock.cc](http://skylock.cc)**

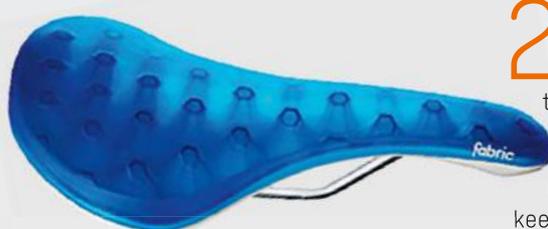
# 5 essential Haibike xDuro add-ons

Make your electric two-wheeled purchase even more impressive with these handy extras

**3 SKS COMMUTER HYBRID MUDGUARDS**  
 → No mudguards? The xDuro comes with eyelets front and rear, so you can fit these full-length guards. They're designed for bigger tyres, giving loads of coverage. *£19.99; chainreactioncycles.com*



**1 BOSCH NYON**  
 → Available as an option at purchase, the Nyon is a worthwhile upgrade to the xDuro. You get a colour 4.3-inch display, with turn-by-turn navigation, on-the-fly fitness and riding stats, plus smartphone notifications. *£349; e-bikeshop.co.uk*



**2 FABRIC CELL**  
 → The standard Brooks saddle, while a looker, isn't that comfy. It's easy to swap it, but go for one that's designed to be comfy. The Cell uses airsprung tech to keep saddle soreness at bay, and comes in a variety of colours. *£49.99; wiggle.co.uk*



**5 360 FLY**  
 → This handlebar-mounted action cam takes ride recording to the next level, with 360-degree video capture and live broadcasting. Also coming soon is the 4K version, which will offer incredible footage. *£400; jessops.com*

**4 TANNUS SHIELD**  
 → The xDuro has puncture-resistant tyres already, but for worry-free riding check out these inner-tube-free solid tyres, which will mean no more roadside tyre changes when you hit a nail or shard of glass. With patented Nano Technology Foam, the tyre offers comfort and low rolling resistance, and comes in a 700 x 32c size for this bike. *£59.99; thesolidtyre.com*



## FIVE MUST-HAVE APPS FOR YOUR HAIBIKE XDURO



**STRAVA**  
 → Ah, the venerable Strava. Yes, we know everyone uses it, but the cool thing is nobody will know your wicked average speed is nothing to do with your own legs. *Free; App Store, Google Play*



**WHAT TO WEAR CYCLING**  
 → For iPhone owners only, this essential app tells you what to wear before you head out, according to the weather forecast. *Free; App Store*



**EBIKE CONNECT**  
 → If you've opted for the Nyon, then you'll need this companion app. It lets you adjust the Nyon's settings, customise the screen and view your riding stats. *Free; App Store, Google Play*



**GOOGLE MAPS**  
 → If you can't quite afford the Nyon, just strap your phone to your handlebars and use the turn-by-turn direction in Google Maps - it's free and works really well. *Free; App Store, Google Play*



**FILL THAT HOLE**  
 → Regular city riders will no doubt come across potholes on a daily basis. This app enables you to easily report the buggers to the council when you see them. *Free; App Store, Google Play*