

SKI TECHNOLOGY

ACTION CAMERAS

Taking videos as you ski and capturing action shots is becoming easier thanks to technological advances. Yet cameras are delicate creatures, susceptible to moisture, with batteries that lose power in the cold. All of this means that you need to select a camera for the slopes with care. Technology editor Gabriella Le Breton selects some of those best suited to the slopes.





GOPRO HERO4 SILVER (£289.99) AND BLACK (£369.99)

GoPro is the world's best-known action camera producer, and with good reason. Its latest offering, the ultra high-definition Hero4, is hard to beat. The silver model is ideal for discerning sharp shooters, while the black model is an even more technical piece of kit, delivering the latest '4K' video resolution at 30 frames per second. It also has new low light settings and night lapse options, and you can manually control the exposure, ISO limit and sharpness. Both models are Wi-Fi enabled, allowing you to use the GoPro App to remotely control them. Alternatively, try the simpler new GoPro Hero at £99.99. It delivers rich quality footage with low light settings, burst photography and QuikCapture mode, which turns your GoPro into an intuitive, one button camera. gopro.com

DRIFT HD GHOST (£249.99) AND **GHOST S** (£329.99)

Drift took the action sports camera market by storm a few years ago with its LCD display, which is now virtually standard. But the Ghost still stands out for its relatively large 2in scratch-proof screen, its remote control (with 10m range and LED lights to indicate when you're recording) and a 3.5-hour battery life. Both cameras are Wi-Fi enabled, so you can use an iPhone as a remote control, and as a screen on which to stream footage, preview your shots, adjust camera settings and share images using social media. There's also video tagging, continuous loop recording and various lighting presets. Both cameras take 12-megapixel stills with burst and time lapse options. The controls could be more intuitive, but overall both cameras offer a good all-round package. actioncameras.co.uk





CONTOUR ROAM3 ## £189.99

Contour, the second biggest player in the action camera market, creates compact and lightweight — yet highly durable — cylindrical cameras that fit neatly on to the side of your goggle-strap or helmet (and several mounts). The Roam3 comes with lots included: an 8GB memory card, two mounts, a 170-degree wide angle lens and shockproof, waterproof housing. It also features a 270-degree rotating lens (enabling you to film upright regardless of the camera angle) and a laser to help align your shots. Contour's claim to have created the world's "easiest-to-use action camera" is largely accurate: simply slide the switch on top of the camera forward to start recording. A similarly dummy-proof button at the back switches between photo and video mode. The Roam3 might not match the top GoPro models for image quality, but is good for usability and value for money. contour.com

GARMIN VIRB ELITE

Thanks to the oversized slider switch on on?" The VIRB records up to three hours' footage. settings, which include digital image stabilisation well as a camera, shooting 18-, 12- and 8-megapixel stills with options for photo bursts and time lapse sequences. Durable, waterproof and user-friendly, the own ANT+, which only works with Garmin compatible products such as fenix, Oregon and Edge. garmin.com

this helmet cam, you won't keep asking: "Is it Its 1.4ins colour display makes it easy to set up shots, play back footage and adjust menu and lens distortion correction. It also functions VIRB also features wireless connectivity, albeit Garmin's

LIQUID IMAGE APEX HD WI-FI ENABLED CAMERA GOGGLES **£350**

If you don't fancy braving the helmet cam 'unicorn' look, these goggles might be for you. With a camera located above your eyes, what you lack in vertical angle adjustability (only 30 degrees) you gain in flexibility and ease of use. A battery with two hours' life sits in the right goggle strap, and the control mechanism, complete with a tiny 0.5in by 0.5in LCD, sits on the left. The Apex HD shoots film at the same resolution as most of the cameras on these pages (1,080 pixels at 30 frames per second), takes 12-megapixel stills and offers a 135-degree, wide-angle lens. It's Wi-Fi compatible through the ActionConnect App (iOS and Android) and comes with an 8MB MicroSD card. actioncameras.co.uk

ION AIR PRO3 WIFI

£349.99

The newbie on the action camera scene, iON arrived with a bang in 2012 when it introduced the first Wi-Fi enabled camera, which allowed users to upload footage direct to their phone and social media platforms. Given that the cylindrical camera lacks a display screen, the Wi-Fi compatibility is welcome, but the functionality of the iON App (iOS and Android) could be improved. Waterproof to 15m without outer housing, the easy-to-use Air Pro3 features anti-shake image stabilisation, a 160-degree super-wide angle lens which can be reduced to 140 degrees or 150 degrees using the app — and can shoot 12-megapixel stills. Although streamlined, the Air Pro3 is heavier than similarly priced competitors and the battery typically only achieves 150mins of HD filming.



FOR MISS?

CHAVAL RESPONSE XRT INTUITIVE HEATING SYSTEM GLOVES

\$390/£245

Even the hardiest skiers can suffer from cold hands, making heated gloves an appealing yet elusive option. These leather gauntlets avoid the most common problem, overheating, by using Chaval's alphaHEAT technology: slim, flexible, conductive traces transmit power inside the glove rather than the bulky wires used by other brands. Furthermore, while most heated gloves require you to manually adjust the heat according to your activity levels, the Response XRT gloves feature microregulating technology to keep the temperature at 16.5°C (62°F). So the heating element only powers up if you're not generating sufficient heat of your own. This makes for efficient battery use, with the gloves operating for six to seven hours, three times longer than other brands. The charging system (a slightly bulky, wall-plugged affair) also generates gentle heat, drying the inside of the gloves, reducing odours and bacteria. chavalusa.com

MOBI-STRAP **■** £15

on clear, sunny days when

there's no risk of snow blowing

on to your phone. amazon.co.uk

We're all in favour of supporting homegrown talent, but can't help thinking the mobi-strap is a little too homemade to entrust expensive bits of kit to. It's essentially nothing more than an elasticated strap you wrap around your arm, chest or head with a Velcro fastening. To this you attach your smartphone with another Velcro strap, facing the mountain, for use as a cheap alternative to a sports action camera. However, the set-up leaves your phone vulnerable to being crushed and scratched, or simply dropping out in a fall, and it's hard to wrap the strap tightly enough to avoid excessive camera wobble. Even if you do secure it tightly, the strap only covers a 2ins middle section of the phone, meaning its ends (where the camera is) shake about as you move, particularly on larger phones such as a Samsung Galaxy S5, giving poor quality footage. Moreover, unlike sports action cameras, few smartphones are waterproof, so the mobistrap would only be an option

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SKI TECHNOLOGY

HE BEST CHILD-FRIENDLY KIT

Teaching your children to ski or snowboard can be both one of life's most rewarding and terrifying activities. The delight you take in watching your little angel graduate from snowplough to parallel turns is matched by the terror of watching them hurtle out of reach or take a big tumble. Fortunately, technology is on your side, helping you keep a smile on that little face.

MAGNESTICK (magnestick.net) was one of the earliest innovations dedicated to children's safety on the slopes. Chairlifts are equipped with electromagnets and children wear high-visibility back protectors containing a metallic plate. When little Johnny sits on the chairlift, the magnet attaches to the plate, securing him for the duration of the ride to avoid any chance of him slipping beneath the bar. The electromagnet is only deactivated when Johnny puts his skis down on the snow at the top of the lift. The system was launched in Courchevel and is now available in six other French resorts, including Méribel and Megève, as well as in Westendorf, in Austria, and Ovronnaz, in Switzerland.

Hire firm Skiset (skiset.co.uk) has partnered with



geolocation service provider Ma P'tite Balise ('my little beacon') to create an App which enables parents to track their children's location on the slopes. Simply rent a MA P'TITE BALISE GPS beacon at a participating Skiset shop, slip it into your child's pocket, download the free app and track your little nipper's progress around the mountain in real time.

A lot of kit that helps keep your precious snow bunny safe doesn't require technological genius. Simple things such as screw-on tip connectors keep the tips of your child's skis together to avoid leg-splayed falls. You can purchase these from the dedicated children's outdoor kit website LUCKY BUMS (luckybums.com). A ski harness is also a superb idea for toddlers, enabling you to control their speed as they start to tackle more challenging pistes. Lucky Bums makes a comfortable, sturdy harness with an integrated handle, two detachable ski leashes and a small stow pack for snacks and tissues. You can buy the harness and tip connectors for £39.99 from UK-based children's specialist Little Skiers (littleskiers.co.uk). We also like the LUCKY BUMS T-BAR TRAINER (\$49.99/£31), a handheld device with one padded

bar that fits under your child's bottom and a second bar

that acts as a handle. This enables you to get your little ones accustomed to riding a T-bar as you pull them along the nursery slopes.

The brainchild of British mountain-dwelling mother-of-four Jo Marro,









Hands-free devices — Gotchakids, left, and the Babysnow

for children aged three to eight. Available in dinosaur (green and blue) and butterfly (yellow and pink), the vertical strap on the back of the highly visible, adjustable vests makes for a sturdy handle for guiding your little one on the slopes and helping get them on and off chairlifts. Larger tots can also use it as a ski carrier. Other touches include a clear plastic pocket on the front of the vest for emergency contact details and two plastic D-rings at the back, to which you can attach a separate harness (not included).

Another novel contraption, BABYSNOW (babysnowandco.fr — the website is in French only) was invented by mountain guide and ski instructor Eric Arnot for his daughter in 2008. Looking much like a narrow snowboard, the Babysnow has a long U-shaped handle extending at 45 degrees backwards from its centre and a vertical T-bar extending straight up towards the front, with a hammock-like stretch of material between the two. Place little Emily with her feet on the board, legs straddling the hammock and holding on to the front handle, and propel the board along the snow from behind, either on foot or skis. Ideal for children aged one to four, the Babysnow has proved so popular that it's now available for purchase and rental in more than 20 French resorts, including Val d'Isère, Alpe d'Huez and La Plagne.

If the Babysnow inspires your little one to take up boarding, the French resort of LES CARROZ (lescarroz.com) is offering lessons for children aged three and up on miniboards. These pint-sized boards are perfect for introducing children to snowboarding — traditionally a sport taken up by older youngsters. Classes are limited to groups of four and combine boarding instruction with games. Free taster sessions will take place on Wednesday afternoons during French school holidays, with equipment provided.

Budding boarders will also enjoy Burton's Riglet range of boards and parks (burton.com). The RIGLET BOARD is the ideal introductory board. Small and lightweight, it comes with an inbuilt Riglet Reel — a strong, retractable cable, which makes it easy to tow or chauffeur your nipper around the nursery slopes. Once equipped with their Riglet Board, children aged three to six can hone their skills in dedicated Burton Riglet Parks around the world. These mini parks are fun and safe environments staffed by professionals, who will introduce their wards to the mini park features. It's a sure fire way to get your mini-me shredding.

Sive us your verdict on how well the latest ski gadgets work at skiclub.co.uk/chatforum