



The E-vone shoe has an integrated fall detector, alerting help if the wearer is injured.

CREDIT: E-VONE

Stand-out shoes from CES

SHARI SHALLARD

CES in Las Vegas is a massive annual trade show put on by the Consumer Technology Association, a trade organisation that represents the United States' \$398 billion consumer technology industry. Dating back to 1967, the show is now held at the start of every year. More than 180,000 attendees come from around 160 countries to hear talks and see the displays of 4,400 exhibiting companies.

Although the most popular products revealed at this year's event include the Impossible Burger (an I-can't-believe-that's-vegan vegan burger) and a television from LG that actually rolls up for storage, we were drawn most to the exciting things happening below the knee. What follows is a round-up of our favourite footwear-related exhibitors, plus one honourable mention.

E-vone

It is easy to see why French start-up E-vone was recognised as a CES Innovation Award honouree in the category of 'Tech for a Better World'. E-vone's shoes have an integrated fall detector that calls for help — a simple and stylish solution to a

The self-described "largest and most influential technology event on the planet" is not the first place one typically goes to find the latest trends in footwear, but CES 2019 revealed that some of today's most innovative ideas do indeed apply to feet.

real and common problem. The smart shoes were designed initially for independent seniors, but the company is expanding the concept to include industrial options as well (under the name Izome Smart Safety Shoes).

Here's how the shoes work: when a person performs an abnormal movement — such as slipping followed by a fall or stillness — an electronic device inside the shoe detects the action (or lack of it) and triggers an alarm. The shoe vibrates, asking the person whether it is a real or false alarm, and the person has a few seconds to cancel it.



A cutting-edge virtual reality accessory, Cybershoes have potential for gaming and beyond.

CREDIT: CYBERSHOES

Assuming the alarm is not cancelled, a call goes out to a predetermined support network. When someone acknowledges that call, the shoe gives another vibration — this time to assure the person who has fallen that help is on the way.

The device inside the shoe has a GPS locator and movement sensors (including a gyroscope, accelerometer, and pressure sensor), along with the buzzer. It's also GSM compatible for independent communication in over 120 countries. And, with E-vone's subscription model that involves a new pair of shoes every year, wearers can try out a few of the shoes' 20-plus styles.

If all that wasn't enough to get E-vone on our list of favourite footwear products at CES 2019, this little detail secures it: the impetus for creating this shoe came when E-vone CEO Franck Cherel's active 79-year-old mother-in-law suffered a frightening fall. Mr Cherel wanted to create a shoe that enabled continued independence and an active lifestyle for his mother-in-law. Her name? Yvonne.

Futuristic Footwear: Cybershoes

This second product does not exactly belong in a footwear magazine as it isn't intended to be worn beyond a few metres of one's game console, but 'shoes' is in the name so we are making an exception.

Cybershoes, a virtual reality (VR) accessory for the feet, was one of the most animated exhibits at CES 2019. There, grown men and women could be found flailing and fighting and playing their way through a virtual world only they could see. "People loved the Cybershoes at CES," Michael Bieglmayer, inventor and CEO of Cybershoes GmbH, tells *World Footwear*. "They clogged the aisle near our booth waiting to try it out." Enabling individuals to run or walk through VR has long been a challenge, and Mr Bieglmayer points to a specific revelation that birthed the solution: wearers should sit rather than stand. To use Cybershoes, the wearer perches on a swivel stool and straps the accessories to their feet.

Importantly, Cybershoes have implications beyond the world of gaming. The company foresees applications in physical rehab programmes, training, planning for industrial facilities, and even architecture or construction previews. Accurate directional tracking allows wearers to fully observe their surroundings as they walk, duck, bend over, and run — and the experience can also morph into a low-impact mode of exercise.

For now, though, the shoes are being embraced by the VR gaming world — as evidenced by CES 2019 attendees. "We were pleased to see serious business-people in suits and ties freaking out when engaged in games like DOOM with the Cybershoes," says Mr Bieglmayer. "The smiles on people's faces told us we're on the right track."

The Strap-On Instructor: Hawx Connected Ski Boot

Lessons are helpful, but a ski instructor is limited to his or her visual observations in critiquing a skier's technique and style. Practice is of course valuable, but that can become frustrating when it is not clear how or why falls occur or speed fails to increase. The Hawx Connected Ski Boot is designed to overcome those limitations with real-time feedback and assessment.



The Hawx Connected Ski Boot transmits data on technique and performance to an app to provide feedback and guidance to the wearer. CREDIT: ATOMIC

Atomic, manufacturer of ski products for everyone from racers and freeskiers to cross-country and backcountry skiers, chose CES 2019 as the place to debut its digital skiing concept. Developed in collaboration with biomechanics experts from Salzburg University and Salzburg Research, the Hawx Ultra Connected ski boot and skier connectivity uses Suunto's Movesense and embedded force sensors inside boot liners to communicate data via Bluetooth to the Atomic Connected app.

As a skier cuts through (or, as is the case for some of us, snowploughs through) the snow, digital tracking and analysis capabilities size up factors including the skier's balance, edging ability, and pressure control. Once a skier reaches the bottom of a slope, he or she can review the app for feedback on technique along with information on average and top speeds, the slope angle, total distance travelled, total vertical, and more.

This personalised feedback and guidance equips wearers to independently and continuously improve their skiing capabilities. Timothy Sumrall, an avid skier who recently spent a few days skiing at the renowned Deer Valley resort in Park City, Utah, is optimistic about how the connected boot will compare to what he has been using — which is an app on his phone that tracks stats like speed and distance. "Equipment that has an app actually integrated into it and can give feedback on technique," he says, "will be an improvement over the app I currently use."

Customised comfort: Wiivv & Dr Scholl's 3D printed insoles

Companies celebrating advancements in 3D printing were dotted throughout CES, but none caught our interest so much as this partnership in custom printed insoles. Pulling from the foot-care expertise of Dr Scholl's and the technology capabilities of Wiivv Fit Technology, consumers can now use a smartphone app to measure, design, and order on demand their perfectly personalised insoles.

The custom 3D printed inserts are mapped from 400 points on a person's foot, a technique pioneered by Wiivv. In fact, three years ago, the company was a runner-up in the CES TechCrunch Hardware Battlefield competition, for an early version of this technology.

With these custom 3D printable inserts, a consumer scans each foot to assess its



The HOVR connected shoe — captures, transmits, and assesses data about distance, gait, cadence, and more.
CREDIT: UNDER ARMOUR

Under Armour

Under Armour wowed CES attendees with the latest in its ever-growing ecosystem of wearable tech, which pulls together watches, earbuds, the popular MapMyRun app, and now the fourth generation of Under Armour's HOVR connected shoe.

At a glance, the latest suite of HOVR shoes presents a stylish and impressive, but relatively typical, selection. The Infinite shoe has a neutral cushion; Guardian is a stability shoe; Velociti 2 is smooth and light; Sonic 2 is cushioned but flexible; and Phantom SE has a 3D-moulded footbed.

What is different about each of these, though, is that every shoe in the 2019 HOVR Suite has an embedded sensor in the midsole that digitally connects (via Bluetooth) to the MapMyRun app. Each shoe's design protects the sensor from outdoor elements and is expected not to require charging for the lifetime of the shoe. General data about distance, pace, and splits, combined with more nuanced insights such as cadence and stride length, is transmitted from the shoes to the app.

Part of this debut is a new Gait Coaching feature in the app, designed to provide in-depth analysis of the runner's stride so he or she can run more efficiently and reduce risk of injury. This manifests in ways that runners will certainly find fascinating: the data gathered allows the runner to view a comprehensive picture of their current form. From this, the app demonstrates what the ideal form is and how the runner's existing form compares — then guides the runner on making necessary adjustments for continuous improvement and a more optimal running experience.



Custom 3D printable insoles are customised to each foot and the customer's choice of top cloth. CREDIT: DR SCHOLL'S



Rollasole vending machines offer a comfortable, rollable, flat alternative for conference attendees with aching feet.

CREDIT: ROLLASOLE

unique shape and arch height, then selects a size, colour, and design for the top cloth, and then places an order. The inserts usually arrive within two weeks.

The collaboration was well received at this year's CES. "We've had an overwhelming number of orders from attendees and

media who want to review the custom insoles," Wiivv co-founder and CEO, Shamil Hargovan, says. "We had great early media coverage coming out of CES, and are encouraged by the growing awareness of the benefits of custom products built on-demand for one person at a time."

Honourable Mention: the Rollasole Vending Machine

This last product was not an exhibitor, but it's footwear-related and technically it was at CES (and we love it), so it makes the list: The Rollasole vending machine. Rollasole makes rollable flat shoes that can be rolled up and stuck in one's handbag — ready to pull out when high heels or other impractical shoes become too painful to bear.

It's this compact rollability that makes them perfect for vending machines, and for five years the company has strategically placed these vending machines at heavily-foot-trafficked venues such as airports, malls, and conference centres. Consumers can slide their credit card through the machine and slip into a pair of comfortable yet chic shoes.

"The Rollasole machines definitely see an increase when a conference is in town," Rollasole's Ashley Ross tells *World Footwear*. "Most women forget how much walking they will be doing while attending these conferences. We place our machines in high-traffic areas where women need us the most."

So, we conclude this round-up with a nod to the Rollasole vending machine at CES 2019. Just standing humbly off to the side, a quiet, pink convergence of footwear and technology. 🍷




INDUSTRY

Perfect Combination Of
Water-based Adhesives
& Auto-equipment

The Leading Shoe Adhesive Manufacturer





- ▶ Labor Saving
- ▶ Safety
- ▶ Environmental Friendly
- ▶ Efficiency



GRECO

ADHESIVES

www.greco.com.tw