

## Health and Wellness

The entire world has spent the last two years taking a crash course in dealing with a health crisis. This has served to accelerate the idea of using technology to improve the healthcare and wellness experience. Necessity is the mother of invention and we've all had a healthy helping of necessity.

### Accessibility

Accessibility is a special subset of health and wellness. Technology can help level the playing field a bit. In some cases, technology can even provide superpowers. For example, the OrCam MyEye allows visually impaired people to read QR codes. Here are a few clever accessibility products.



### *OrCam – MyEye Pro Smart Glasses*

The OrCam MyEye is a little camera that attaches to glasses to provide assistance to the visually impaired. It can do amazing things like read newspaper articles and recognize faces, money, colors or products. It can even provide superpowers like reading bar codes. It works by analyzing video and translating it to audio using

AI. It is an amazing product that I've covered before and it has won awards at CES three years in a row. What they've added this year is voice control. Now you can ask MyEye questions like, "What's in front of me?" or "What are the headlines."

### Digital Health

Covid has brought digital health home – literally. A routine doctor visit is now regularly done with a video call. However, it's difficult to provide any sort of detailed information over a simple video when you can't even determine if the person is wearing pants. In order to alleviate this problem, there are several companies that have developed connected devices to give the doctor (and you) accurate measurements and a little more information to go on. Some of these devices can passively observe or even be worn and can improve care by only reporting when something requires attention.

### *Tellus – Senior Monitoring*

Tellus (two L's) won an innovation award for their wall-mounted millimeter-wave sensor that can tell if somebody has fallen. It uses a machine-learning algorithm to identify a normal daily routine and can contact loved ones if things don't "look" normal.

### [CradleWise – Smart Crib](#)

The CradleWise smart crib brings the smart crib to the smart home. The crib has a mattress that can be height-adjusted to prevent your little Houdini from escaping and has an integrated video baby monitor. The monitor can be viewed in real time, but it can also use AI to send you a text when your baby is about to wake up. It also has a quiet bouncing mode which will either help put your baby to sleep or make her seasick. Everything is controlled via a smart phone app that also tracks your baby's sleep fitness.



### [Quantum Operation –Continuous Glucometer Watch](#)



The Quantum Operation glucometer wrist band can monitor your glucose level without a finger stick. So can the heavily marketed Freestyle Libre from Abbot Labs. The difference is that Libre requires a digital patch that you adhere to your body while the Quantum Operation device looks like a smart watch. Both approaches seem viable to me, but the watch seems a little less inconvenient. Both methods seem MUCH better than finger sticks.

### [Sengled – Health Monitoring Light Bulb](#)

Sengled is known for its smart color lighting. They have ventured way beyond that with their new bulb with integrated health monitoring radar. That's right. Radar. This bulb can remotely track your sleep, temperature, breathing rate and other vital signs. It can even detect a fall and send for help. It has both Bluetooth and Wi-Fi, so you don't need an extra hub.



### [Heru – Eye Diagnostic AR](#)

Are you still using your AR headset to play games? How cute. Real innovators at Heru are using AR to diagnose eye problems. The custom AR headset allows patients to get diagnosed wherever they are by using AI. The technology was developed in conjunction with Miami's Bascom Palmer Eye Institute. Heru is now working on ways to use AR and AI to correct some vision problems. Now your AR glasses could actually work as – *glasses*.



### [Sleepme – Temperature-controlled Sleep System](#)



I'm a huge technology fan in general, but one technology that really stands out is the system that heats my bed before I climb in. I have heard, however, that there are some disturbed people that actually like a cold bed. The Chilisleep Dock Pro bed topper from SleepMe is for you. It circulates cooled water through channels in the topper from a pump that sits under your bed. It can be programmed to change to different temperatures throughout the night. The SleepMe Insight is a sleep tracker pad that can be slipped under the Chilisleep. The two systems can be paired together using the SleepMe+ service and automatically adjust the temperature to increase deep and REM sleep time.

### [TruMedic – MagicHands](#)



I'll admit I am a sucker for the many massage chairs that are displayed at CES. Most of them require a pretty serious investment, so I don't have my own yet. However, this year there is something new in automated massage (besides the Pharaoh O2 with oxygen). The new TruMedic MagicHands neck and back massager claims to provide a true Shiatsu massage (with heat) in a nice battery-powered portable unit that is reasonably priced. I don't know how well it works, but it made Oprah's list so I am encouraged.

### [Truthbrush – Smartify Your Toothbrush](#)

The Truthbrush is a handy little device you can attach to any toothbrush. It uses an accelerometer and beeping timer to measure and time brushing. It can be attached to any toothbrush. You simply strap it to your favorite brush (manual or electric) and brush your teeth. A timer can be set to various times to let the brusher know when time is up for the entire session or just for one section of teeth.



The tracker on the brush connects via Bluetooth to a plug-in hub that also supports Wi-Fi. Parents can monitor several brushes at once on the smart phone app to see the quality and time of brushing or get an alert if brushing hasn't occurred by a set time. No longer do you need to hover or interrogate when it comes to dental care.

### [ATAraina – Flying Air Filter](#)



If you want to filter the air, you must go where the air is. That is the principle behind the ATAraina Flying Magic Cleaner. It is a drone that flies around your house like an airborne robot vacuum cleaner and filters your air. It uses a built-in ionizer to attract ultra-fine particles and run them through a filter. It has multiple cameras and sensors to avoid obstacles.

### [Opteev – ViraWarn Covid Detector](#)

Opteev's ViraWarn Patriot is a mass Covid detector appliance that boasts near 100% efficacy at instantly detecting Covid in the air. Under tests by the NIH, it seems effective at detecting all the variants so far. The device is about 5.5 inches tall and 8 inches in diameter. If the alarm goes off, nearby individuals can be tested with a breathalyzer-type device that will instantly identify infected people. Or you could just evacuate the building. The Patriot is available now.



### [Vivoo – DIY Urine Tests](#)



If you enjoy diagnosing medical conditions at home, you may be interested in the Vivoo DIY urine test. All you need to do is pee on a strip and observe the results. The process is very simple. Just order the test strips, urinate on them, wait two minutes, take a photo with the Vivoo smart app (of just the test strips) and instantly get the results. The tests can track hydration, pH level, magnesium, calcium, test for urinary tract infections and several other things. All this is done with image processing, machine learning and AI. It seems like a relatively convenient way to track some important health parameters without visiting the doctor.

### [Withings – Now with Handlebars](#)



Withings was one of the first companies to embrace digitized and connected healthcare. This is especially evident in their iconic body composition scale. This year they have revamped their scale with a set of retractable handlebars that unwind from the front of the scale. The sensors in these handlebars allow for analysis of additional parts of the body. Instead of just traveling through your leg, the electrical measurements can travel through your arms and torso. This allows you to measure water percentage, visceral fat, muscle mass and all the other typical body composition measures, but it can also measure cardiovascular features and provide an ECG to detect arrhythmias. Additionally, you can use the scale to enroll in health monitoring and coaching subscriptions.

### [Grin – DIY Dentist](#)

The Grin app and associated camera attachments allow you to use your smart phone for remote visits to your dentist or orthodontist. With the Grin Scope camera attachment that works with any smart phone, changes in a patient's teeth can be accurately tracked. This reduces in-patient visits. For now, I think dental-hygienist-quality teeth cleaning will still need to be done in-person.



### [Fitness and Wearables](#)

If you go to all the trouble of exercising, you should get credit for it. I have said some very unfortunate things to my Apple Watch when it has failed to log my legitimate standing activity. There were many products at CES designed to measure, evaluate and automate your exercise.

## [Wondercise](#)



Wondercise is a combination workout at home and social media network club. It's guided by a social media app where you can get video instruction from a coach or communicate and compete with fellow class participants. The basic idea is to duplicate the moves of the instructor. You get scored based on how accurately you achieve this. You can use a smart watch, connected accelerometer bands and a bunch of different connected equipment (exercise bikes, free weights, etc.) depending on the classes you want to join. The Wondercise business model is basically a subscription service, but you can get free months if you purchase more exercise equipment. This seems like a strong business model and a compelling way to work out at home.

## [Garmin – Approach R10 Launch Monitor](#)

The Garmin Approach R10 is a small device on a tripod that is set up behind you when you tee up at the golf course. It has a camera and uses analytics to measure up to a dozen golf metrics. It can also record your swing so you can see exactly what's happening. You can load virtual golf courses and virtually play them even if you can't leave the house. I'm not a golfer, but I thought leaving the house was sort of the point.



## [Connected Exercise Machines](#)



If you like a particular type of exercise activity, there's bound to be a connected machine (with an app) for that. [Hydrow](#) is a connected rowing machine with a video screen that can have you virtually rowing on several major rivers. [Climbr](#) doesn't provide you with a mountain, but it does have a virtual coach and a challenging full body workout. It's sort of like a treadmill, but vertical. The [Vitruvian](#) looks like a "Step" from the aerobics workouts of the 80s. It has handles on cables that provide a tension workout. The [LiteBoxer](#) lets you box by actually hitting targets arranged in a circular pattern. The targets light up when you are supposed to hit them. You are scored based on how quickly and powerfully you hit them. All of these machines measure your performance and record it to your phone so you can track your progress.