

Immersive Entertainment: AR/VR/XR

Immersive entertainment (or immersive experience in general) was evident in several products at CES. Gaming is a major sector for immersive entertainment experiences. Augmented Reality (AR) is also an important technology for field service, training, and other topics where artificial parts are added to reality using AR goggles or other technologies. Immersive experiences can be further enhanced with various sensors and actuators added.

[AR, VR, XR](#)

If there's one thing I've learned during Covid, it's that reality is not all it's cracked up to be. Fortunately, technology has given us alternatives. Reality can be mixed with virtuality or completely replaced by it.

[LetinAR AR – Affordable AR](#)

LetinAR makes augmented reality glasses that are (sort of) reasonably priced and don't require a neck brace to wear. They only weigh 66 grams (2 oz). The glasses connect to your computer with a simple USB-C cable. The full-color microOLED display is embedded into the lenses using their patented PinMR that switching micro-display images into the pupil with tiny mirrors. After writing that, I'm still not sure how it works, but apparently it solves several problems normally associated with AR goggles and won't make you dizzy.



[OWO – Actuated Clothing](#)

OWO makes haptic actuated clothing for gaming. Most connected clothing embeds sensors to track your movement. The OWO shirt lets you literally feel the game. They advertise over 30 sensations you can feel. These include getting punched, getting shot (with exit wound), getting stabbed in the chest with a dagger, and getting chopped with an axe. It sounds delightful. You can also feel things such as insects and machine gun recoil. I'm not sure how they can use their connected actuators to simulate free fall or stress, but those experiences are listed as well.



[Universal electronics \(and Samsung\) – Ambient Powered Remotes](#)

Samsung and [Universal Electronics](#) both showed rechargeable remote controls. These designs are more convenient for customers because they don't need to replace batteries and better for the environment because people aren't regularly throwing away as many batteries. The Universal remote claims to perform well in normal indoor lighting conditions (there probably isn't a lot of sunlight where you watch TV) and the Samsung model includes the ability to harvest energy from your Wi-Fi signal.



Gaming

Gaming is probably the area most suited to immersive experiences. Here are some products that take immersion to the next level.

[Shifall – Wireless Body Tracking](#)

Shifall is all about the metaverse. They have VR goggles (MageneX) with a steam punk vibe, integrates speakers and the industry's best resolution (2560x2560 OLED for each eye). They have the PebbleFeel that straps to your back and reproduces the temperature of your virtual world. They have the HaritoraX, a sort of climbing harness thing that straps to your waist, thighs, and calves to monitor your body motion. Finally, they have the MuTalk, which is a strap-on chamber that covers your mouth to silence your screams. An embedded Bluetooth microphone transmits the screams to your gaming buddies while sparing your family. When you're bedecked in all your Shifall paraphernalia, you may look like some poor victim of the Matrix, but in the metaverse you'll be the envy of your peers.



[Razer & D-box – HyperSense Gaming Chair](#)



If you'd rather not have to strap yourself into several sensors to participate in the metaverse then the new Razer Enki Pro HyperSense gaming chair may be for you. It is a comfortable chair that features lumbar support and the black-and-dayglo color schemes Razer is known for. But it also has haptic effects designed by D-Box. You can feel the bumps and crashes as you navigate through your virtual world. If you feel like getting stabbed, you'll also have to wear the OWO shirt.