



Ultraleap's technology creates easy-to-use haptic technology | Photo source Ultraleap

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TOUCHLESS TECH PLATFORM TO INTEGRATE WITH MUSEUMS FOR COVID-ERA VISITS

 COMPUTING & TECH

Ultraleap's hand-tracking software can generate a virtual model of hand movements and to accurately predict the position of a finger or thumb

Spotted: Touchless-tech company Ultraleap has signed a deal with experience design company Cortina to developed touchless technology for use in interactive exhibits in museums and aquariums. The deal illustrates the move towards greater touchless services in the age of COVID-19.

Ultraleap's hand-tracking software uses infrared LEDs to bathe the users' hands in light invisible to the human eye. Motion sensors then pick up these signals from this light and send data back to an algorithm that tracks users' hand motions. The system can then use the images to generate a virtual model of the hand movements and to accurately predict the position of a finger or thumb, even if it's hidden from view.

The virtual models of users' hand movements are then used to create a "unified physical interaction paradigm". This allows users to not only swipe but to grab, push, and pinch virtual objects in mid-air. The technology will be used to create a variety of 3D interactive interfaces and displays for museums that will reduce the need for visitors to touch public surfaces. These interfaces can also work as a touchless replacement for touchscreen displays.

According to [Jim Cortina](#), Principal and Director of Development at Cortina Productions, this deal is in response to a huge increase in demand for touchless exhibits. "Our clients rely on us to be at the forefront of new technology and to deliver experiences that are engaging and innovative. Ultraleap's technology not only helps us to provide the 'wow factor', it is completely touchless, making it the perfect solution to our clients' requests."

By dispensing with a clumsy prosthesis, Ultraleap takes haptics to a new level. But this is not the first advance in haptic technology we have covered. At Springwise, we have taken a keen interest in innovations such as the use of ultrasound to produce **Braille text** in mid-air and a **haptic vest** that allows non-verbal communication with dogs.

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Takeaway:

As businesses try to create a “new normal” in the post-COVID world, there is an acknowledgment that many devices that once used touchscreens will now need to be touchless. And Ultraleap is well-placed to provide this technology. The company has developed innovative ways to use hand tracking and mid-air haptic technology to allow people to interact with exhibits by, effectively, waving their hands in the air. This could hopefully allow people to safely return to museums and other venues, as well as keep them entertained.