Gesture navigation | Photo source Pixabay

GESTURE CONTROL E-SKIN USES EARTH'S MAGNETIC FIELD

TELECOMMUNICATIONS

Researchers in Germany have a developed a wafer thin e-skin wearable that detects the Earth's magnetic fields and can be used to control devices or for navigation.

Spotted: Touchscreen technology is advancing towards greater levels of interaction. We have already covered a few examples of the idea of gesture control, where users can interact with autonomous cars or turn on the TV by simply waving their hand. However, now researchers in Germany have gone one step further and developed a new method of gesture control powered by the Earth itself.

The researchers, based in the Helmholtz-Zentrum Dresden-Rossendorf (HZDR), have developed a wearable e-skin (electronic-skin) that turns the Earth's magnetic field into a signal. The wearable is a few thin strips of permalloy (a magnetic alloy of iron and nickel), which detects the Earth's magnetic field. This combined with thin strips of gold, enables the conduction of electricity. A user wraps these thin metal strips around their fingers to activate the wearable. The geomagnetic detection of the permalloy combined with the conductive gold, when arranged in a specific way (with the gold strips placed at 45-degree angles), creates an electronic signal with varying strength. If the user points their finger North, the signal is stronger, whereas if they point South the signal becomes weaker.

applied this e-skin to a simple video game. Users were able to control simple directional onscreen avatar by pointing North or South. Additionally, scientists advise, the e-skin gives sense of magnetoception, which is how birds navigate when they migrate. Whether this will become more useful than google maps in the future remains to be seen.

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Takeaway:

As homes and cities become increasingly smarter and more connected, gesture control could lead to increased efficiency for users. Gesture controlled screens and devices could be used in interactive advertising campaigns, helping businesses create stronger connections with potential customers. Gesture control also has the potential for AR and VR industries to create deeper, more seamless experiences for users. Could your workspace or marketing team make use of gesture-controlled devices?

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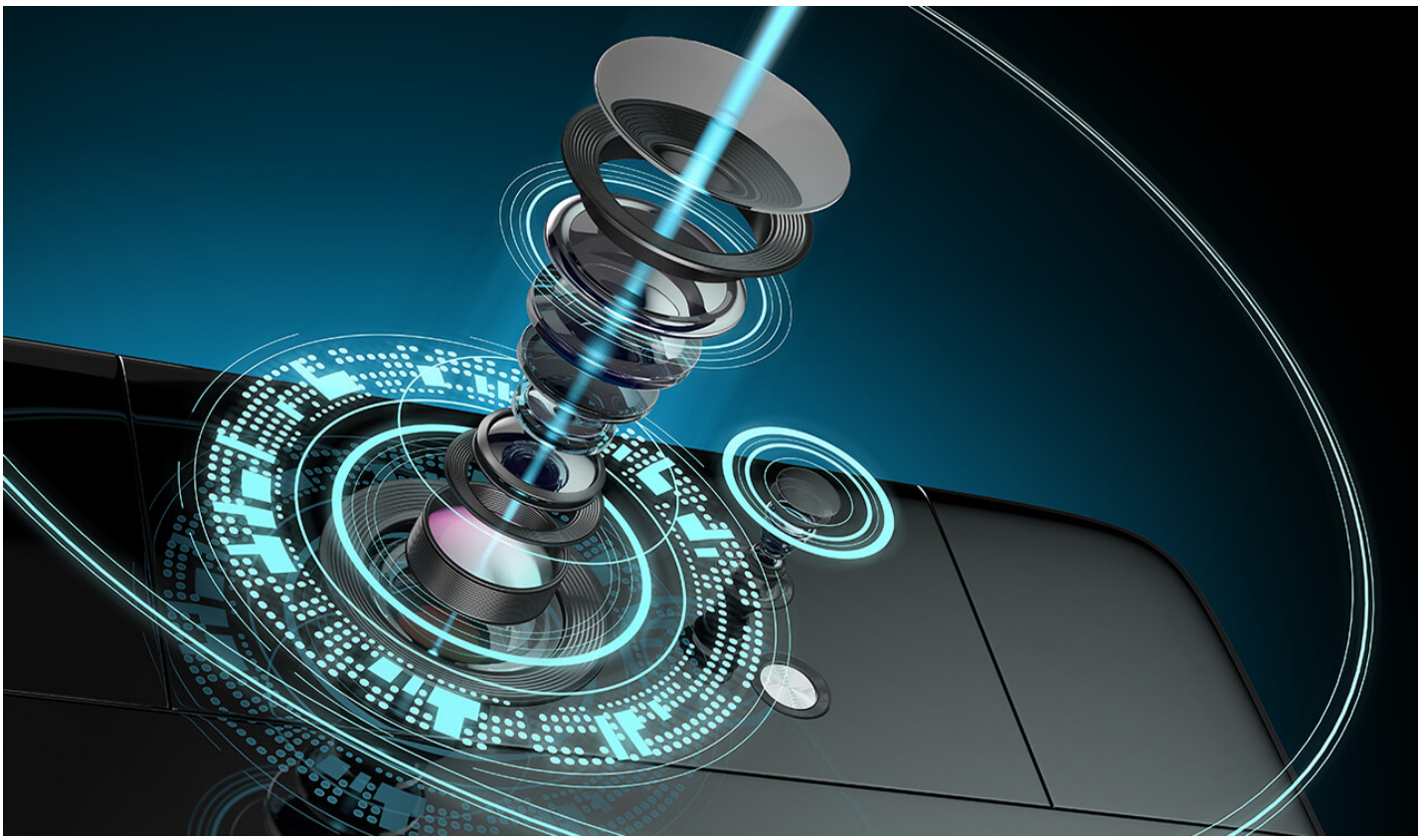

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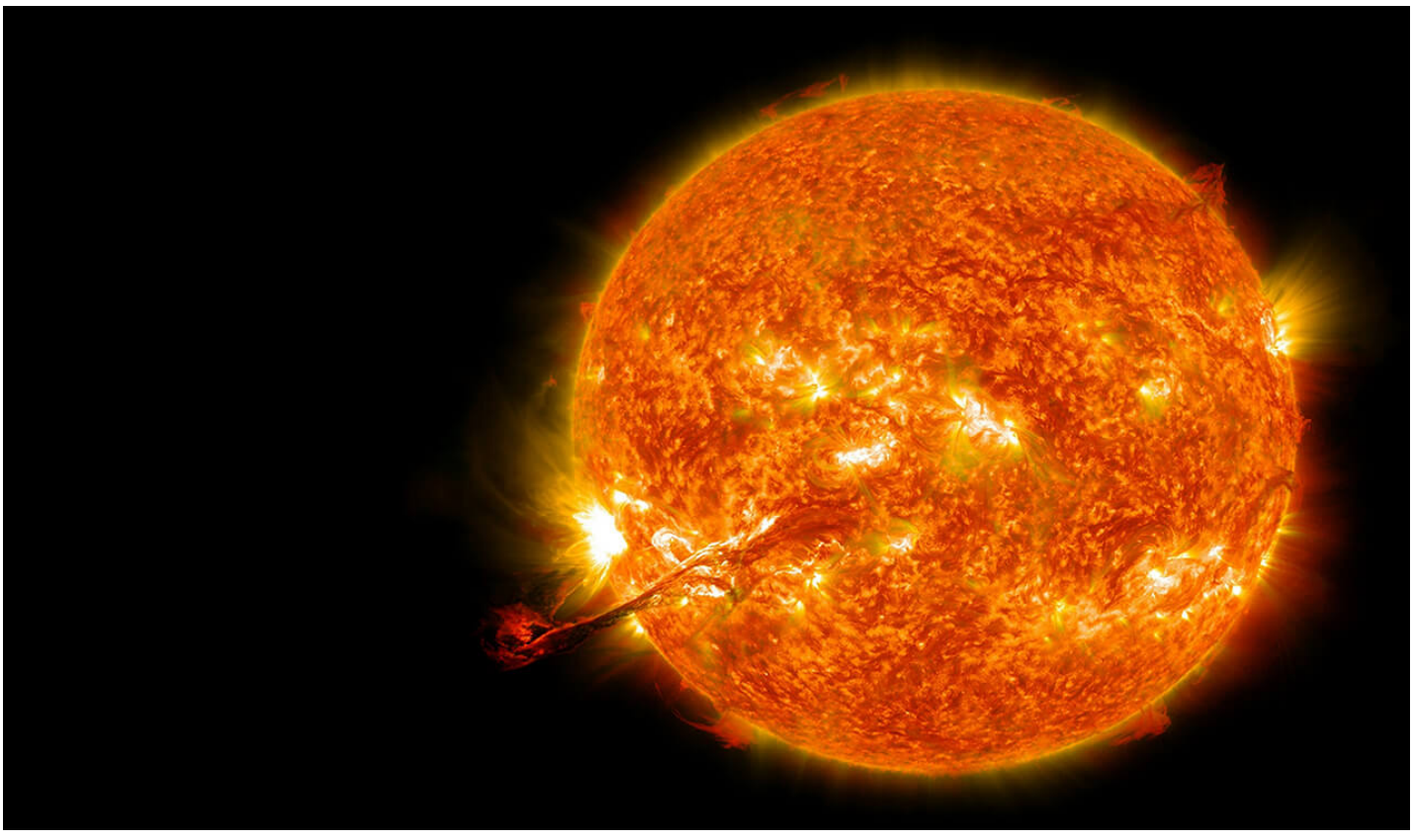

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