Dukas Presseagentur
Telefon +41 44 298 50 00
www.dukas.ch / photo@dukas.ch

Sensitive skin to give robots the human touch

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Title

Sensitive skin to give robots the human touch

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Caption

Ferrari Press Agency

Robot skin 1

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See Ferrari text

Pictures must credit: University of Cambridge

Scientists have developed a low-cost, durable, highly-sensitive robotic ‘skin’ that can be added to robotic hands enabling robots to detect information about their surroundings in a way that’s similar to humans.

The UK researchers, from the University of Cambridge and University College London say the conductive skin is easy to fabricate and can be melted down and formed into a wide range of complex shapes.

The artificial skin is packed with ultra-sensitive sensors that detect pressure, texture, temperature and even “pain-like signals.”

The skin is made from an electrolysed hydrogel with electrodes embedded around the wrist.

Electrical fields generated across the skin detect different types of stimulation.

These sensors monitor thousands of bits of information which detect
where the stimulation is and the type.

Although the robotic skin is not as sensitive as human skin, it can detect signals from over 860,000

tiny pathways in the material.

It can recognise different types of touch and pressure – like the tap of a finger, a hot or cold surface, damage caused by cutting or stabbing, or multiple points being touched at once – in a single material.

OPS: The electrolysed hydrogel used for the skin moulded into the shape of a hand.

Picture supplied by Ferrari
(FOTO: DUKAS/FERRARI PRESS)

Special instructions

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Credit

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Source

FERRARI PRESS

Author

University of Cambridge

Original references