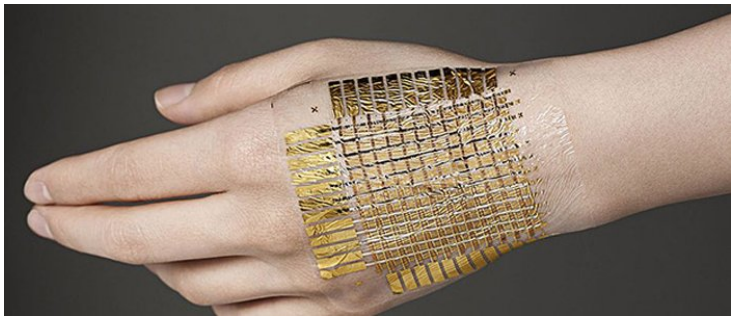
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Experts in US develop recyclable e-skin

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The new e-skin has sensors embedded to measure pressure, temperature, humidity and air flow.



A team of scientists at the University of Colorado, US has developed a new type of malleable, self-healing and fully recyclable electronic skin that has applications ranging from robotics and prosthetic development to better biomedical devices.

Electronic skin, known as e-skin, is a thin, translucent material that can mimic the function and mechanical properties of human skin. The new e-skin has sensors embedded to measure pressure, temperature, humidity and air flow.

Another benefit of the new e-skin is that it can be easily conformed to curved surfaces like human arms and robotic hands by applying moderate heat and pressure to it without introducing excessive stresses.

To recycle the skin, the device is soaked into recycling solution, making the polymers degrade into smaller molecules like oligomers and monomers. The recycled solution and nanoparticles can then be used to make new, functional e-skin.