

E-tattoos? 3D printable electronics could make them possible

In April [2018], [Michael McAlpine](#), a mechanical engineering professor at the University of Minnesota, [published a study](#) in the journal Advanced Materials in which he demonstrated a way to print electronics directly onto the skin. The device — cheap, accessible, and compact — already offers groundbreaking applications for the military and medicine. In the future, it could completely change how we interact with the world around us.

Futurism recently spoke with Alpine about his research, and the future of printable electronics and e-tattoos.

Futurism: I want to start by talking about the 3D printing technology at the center of this study. What's so special about it?

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[MM]: We're expanding the capabilities of 3D printing beyond hard plastic, and toward what we call "functional materials." That means printing materials that have some practical use — electronic materials, soft polymers, and even biological materials like cells — all on a single platform.

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[MM]: For our most recent paper, in addition to printing electronics on the back of the hand, we also printed cells onto the wound of a mouse. We collaborated with the dean of the medical school here, Jajub Tolar, who works on a rare skin disease where the epidermal layer flakes off as a result of a genetic disease. We were able to print regenerative cells onto the mouse's wound while the mouse was moving.

Read full, original post: [Glimpse: How Electronic Tattoos Will Change The World — And Ourselves](#)