# **#TECH: A battery that runs on... your** sweat

By ETX Daily Up - September 6, 2021 @ 1:15pm



The prototype battery runs on perspiration.

RESEARCHERS from Nanyang Technological University, Singapore, have developed a new innovative battery powered by perspiration.

The device designed by engineers there measures 5.2 sq cm and is as flat as a Band-Aid. The prototype battery runs on perspiration and can discharge 20 hours of electricity from just 2 ml of sweat. At this point, it is only usable on small portable devices.

The soft, stretchy battery is attached to a stretchy textile that will absorb sweat at the wrist or forearm. It is also possible to attach it to objects like smartwatches. The textile absorbs and retains the sweat to provide the battery with a constant supply of power, even if the rate of perspiration varies. The great advantage of this sweat-powered battery is that it does not contain any toxic chemicals or heavy metals, so there is no risk to your health or the environment.

Initial testing took place on a person wearing the battery around his wrist during a 30-minute exercise bike session. The volunteer was able to generate a voltage of 4.2 V, enough to power a temperature sensor and send its collected data to a smartphone throughout the process.

This new battery design could reduce hazardous electronic waste and

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