

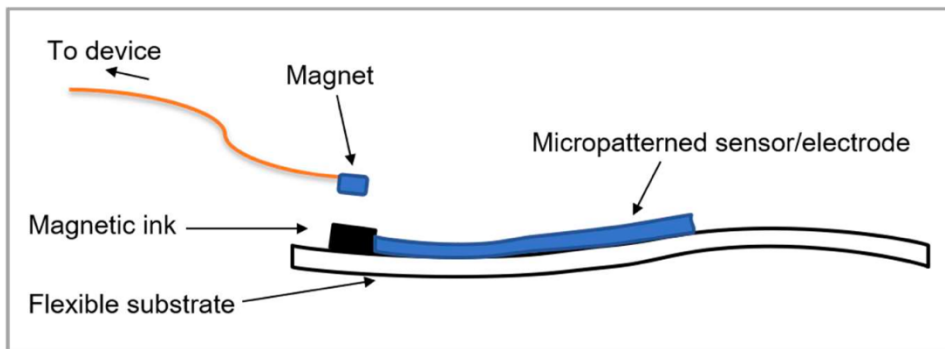
Easily dispensed multifunctional ink

Method to form transient physical and electrical connections in flexible devices

Flexible sensors, antennae, or energy storage devices often consist of soft and/or biodegradable materials. In most cases they need to be attached to a rigid device to operate. Connections between electronic devices are typically made using clamps, pastes, and soldering. These methods can cause various issues, such as mechanical mismatch and damage to the product.

The technology

A novel, easily dispensed, magnetic ink has been created to enable a temporary physical and electrical connection between flexible and rigid devices. This is possible through a combination of a conducting polymer and a magnetic suspension. This conducting magnetic ink would be dispensed on removable and flexible platforms (i.e., biosensors, bioelectronics, etc.), with a magnet used to form an easily released connection. This invention has potential applications in both the healthcare and wearable technology domain.



Benefits

- » Forms physical/electrical connections
- » Ability to connect flexible and rigid devices

Applications

- » Biosensors
- » Bioelectronics
- » Wearable technology

Patent status:

Patent pending: U.S. and foreign rights are available.

License status:

This technology is available for licensing to industry for further development and commercialization.

Category:

Material Science

VCU Tech #:

21-098F

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