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Engineers Create Device That Can 'Communicate' with Plants | IE

Researchers from Nanyang Technological University have created a device that uses electrical signals to communicate with plants.

SCIENCE & TECH

Imagine being able to ask your fiddle leaf fig why its leaves are turning brown and crispy, or checking in with your apple tree about the best day to harvest. While it sounds like something out of Little Shop of Horrors, communicating with plants is actually far less science fiction than you might think.

Researchers from Nanyang Technological University, Singapore, devised a tool that can deliver electrical signals to and from plants, allowing a path for communication. The device, detailed in two separate papers in Nature Electronics and Advanced Materials, won't quite let you speak to your sunflowers, but it can monitor how the plant responds to its environment, and transmit movement instructions to the plant.

In order to achieve this feat, the researchers had to figure out how to measure the electrical signals emitted by plants. Normally, electrical stimulation is done through electrodes, but they couldn't be utilized in this case since the plant's hairy and bumpy surface made it difficult for electrodes to stay attached. To tackle this problem, the researchers developed a gel-like "morphable" electrode that could attach to the surface of the plant.