

Scientists Create "Robo-Plants" with Nature and Tech

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各位老師，各位同學，大家午安，我是 809 周淳嘉，我是今天的英文小達人，今天，我要為大家播報的內容，是 **Scientists Create "Robo-Plants" with Nature and Tech**

Scientists have developed a high-tech system for communicating with plants. Remote-controlled Venus flytrap “robo-plants” that tell farmers when they are hit by disease could become reality.

Researchers in Singapore connected plants to electrodes that monitor the weak electrical pulses they produce naturally. They used the technology to trigger a Venus flytrap to snap its jaws shut using a smartphone app. They then attached one of its jaws to a robotic arm and got it to pick up a piece of 0.5 mm thick wire.

There are still challenges. Scientists can stimulate the flytrap’s jaws to close, but cannot reopen them, which takes 10 hours or more to happen naturally.

The system can also pick up electrical signals produced by plants, so farmers could possibly detect problems with their crops at an early stage, such as the onset of disease, before symptoms appear on the crops.

Plants produce weak electrical signals, but their uneven, waxy surfaces make it difficult to fit sensors on them. The researchers developed soft thin electrodes that fit tightly to the plant’s surface and can detect signals more accurately. They are attached using a “thermogel,” which is liquid at low temperatures but turns into a gel at room temperature.

Thanks for your listening. See you next time!