



Using a smartphone to control a Venus flytrap

World | REUTERS 13 May 2021



Tiny electrodes attached to the plant can make its trap close like it does when catching a fly. REUTERS

Researchers in Singapore can control a Venus flytrap using electric signals from a smartphone.

Luo Yifei, a researcher at Singapore's Nanyang Technological University, demonstrated how a signal from a smartphone sent to tiny electrodes attached to the plant can make its trap close like it does when catching a fly.

"Plants are like humans," said Luo. "They generate electric signals like the ECG from our hearts. We developed a non-invasive technology to detect these electric signals from the surface of plants without damaging them."

The scientists also detached the trap portion of the Venus and attached it to a robotic arm so it can - when signaled - grip something thin and light like a piece of wire. In this way the plant could be a robot to pick up fragile items.

Communication between humans and plants is not necessarily one-way.

The NTU researchers hope their technology can be used to detect signals from plants about abnormalities or potential diseases before full-blown symptoms appear. "We are exploring using plants as living sensors to monitor environmental pollution like gas, toxic gas or water pollution," said Luo.

For Darren Ng, who set up a business to sell the plants and offers care tips, the research is welcome. "If the plant can talk back to us maybe growing these plants can be easier," he said.