Product Information Sheet

ePlant TreeTag

The ePlant TreeTag

The wireless, solar-powered, easily-deployed ePlant TreeTag system remotely monitors and tracks the health of woody plants. What was traditionally done with expensive systems, requiring separate sensors, batteries, solar panels, radios, and data loggers, is now available in a compact all-in-one device.



Who We Are

ePlant is a California based company founded in 2020, composed of experienced engineers and scientists with a passion for unlocking new insights through developing state-of-the-art sensing platforms.

Features

- The **dendrometer** measures the small fluctuations of the trunk radius. This data captures information about the relative effects of stressors, such as **low soil moisture availability and high transpirational driving forces** in the canopy. Any disturbances in the plant's water uptake will be highlighted in this signal.
- The **accelerometer** detects **disturbances in the tree's root zone**, for instance, capturing evidence of the roots being cut or damaged by heavy machinery. It can be used in **risk mitigation** by closely monitoring the lean of questionably stable trees over time.
- Sensors are fueled by an innovative power system that recharges from the onboard solar panel. Except for extreme cases, the device **will maintain continuous operation** without human intervention.
- The radio system is optimized for low-bandwidth communication over long distances, enabling the TreeTag to have a wide geographic range to the gateway and still operate efficiently. Data is received by the gateway and automatically sent to the cloud, where it is **accessible in real-time** from anywhere in the world.

The Vision of ePlant

The TreeTag is only the start. ePlant is building the Internet of Plants, a platform of data, information, knowledge, insights, and decision-making tools. It is fed by a network of innovative smart devices, beginning with the low-cost, mass-deployable, easy to use ePlant TreeTag.

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