iPlant: Electronic Plant System

SPCL-2012 - Project Proposal

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BACKGROUND AND MOTIVATION

For years we have enjoyed the beauty of green plants. Yet people often struggle to keep their plants fit. Plants require much attention and regular watering and sunlight is something that is easily overseen. (reference)

Even further some plants a more difficult to keep fit i.e. Orchidaceae, which easily dies when not treated daily.

and other individuals have failed to keep plants alive, correct watering and sunlight is difficult to provide in todays busy world. Yet we do desire to keep plants for their decoration as well as their oxygen production. A similar problem is when is it necessary to vacuum, we do not wish to waste time by doing it too often, but still want our home to be clean, today the typical solution is to make it a weekly tradition, but depending on how much you are at home and what you do, this is far from an optimal solution. Our solution solves all these issues for the busy people of today, along with a huge range of information about the temperature and other things in your home. Keep your home healthy.

IDEA

The main idea is to create a system that is capable of both watering and illuminate plant(s). The system should be intelligent and capable of notifying the owner of the plant(s) with status information obtained trough sensors placed directly within the plant.

Potting a plant combined with our solution could make the plant sustain on its own, even when located without access regular sunlight. Our solution will be designed to automatically water the plant - keeping a fixed level of humidity in the soil.

SCENARIO

When traveling plants often suffer from the lack of attention. Or in some cases over-watering plants before going on holidays in the hope that they will survive for the time being.

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REQUIREMENTS

- Arduino microprocessor
- Temperature Sensor
- Humidity Sensor
- Water Pump (Stepper motor)
- Dust Sensor
- Solar Panel / Sensor
- UV-Diodes

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