## The Torch

## Lua: A smart plant pot

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A small garden or indoor plants always contribute to a fresher environment and improved moods. However, sometimes while growing, plants tend to die prematurely due to excess or less amount of water, sunlight and moisture. People may not be able to understand the requirements of the plant. Hence, this issue can be solved by a smart planter known as Lua which was developed by a Luxembourg-based company called Mu-Design. Lua is a smart planter that can turn the static planter into a pet. Lua helps understand the plant requirements according to the facial expression created on the planter's digital display screen. It consists of sensors that can determine factors, such as soil moisture, light, movement and temperature. It displays a smiley face when it is happy, a grumpy face when it gets ignored, a vampire face when there is insufficient sunlight as well as almost 15 other different expressions. A Lua app has also been developed in which the type of plant to be grown can be selected, such as climbers, succulents, flowering trees or foliage plants. Upon selection, a QR code is generated which can be read by the smart planter which then adjusts the settings according to the specific plant's needs. Additionally, the planter has a sub-irrigation reservoir so that the plant receives its water requirements with less frequent watering. The working of Lua is based on the conversion of chemical energy into electric energy which can be understood by humans digitally in the form of expressions. This kind of planter could be helpful by grabbing attention, understanding the needs of the plant in a simple way and keeping the plant grower engaged in taking care of the plant. This technology is human-friendly, therefore it can build up new relations between the plant and the human. However, this technology requires further improvement with new parameters which will give a better understanding of growing plants on a larger scale.

Keywords: Smart planter, Lua, Lua mobile app, Plant health sensors

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