

ABSTRACT

Watering and lighting activities are important activities in plant cultivation so that plants can photosynthesize well. Smart Garden is a system design made to facilitate work in terms of plantations. This prototype performs maintenance by watering and lighting processes along with monitoring using the Blynk application. The design of this prototype includes hardware and IoT aspects to the Blynk application. From the hardware side, it includes the Node Mcu module, LDR (Light Dependant Sensor), soil moisture sensor, LED grow light, water pump, 2 channel relay, and 16x2 LCD. In terms of connection to mobile phones using the Blynk application. After simulating the system test, the results obtained are in accordance with the expected results.

Keywords : Auto Sprinkler, Auto Lighting, Plant Monitoring, Arduino, LDR Sensor, Soil Moisture Sensor, Smartphone