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A Survey on Automated Plant Watering System using Aurduino Uno

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Abstract: *Automatic plant watering systems are devices that can water plants automatically based on the soil moisture level, without human intervention. They can reduce water consumption, improve plant growth, and save time and labor. In this paper, we present the design and implementation of an automatic plant watering system using Arduino Uno, a low-cost and easy-to-use microcontroller board. We use a soil moisture sensor, a water pump, a relay, and a circuit to connect them with the Arduino Uno. We write a software code to program the Arduino Uno to read the soil moisture level and control the water pump accordingly. We test and evaluate our system on different plants and soil types, and measure the soil moisture level, the water consumption, the plant growth, and the system performance. We find that our system can water the plants effectively and efficiently, and achieve a high accuracy and reliability. We also discuss the benefits, challenges, and limitations of our system, and suggest some future work and improvements. Our work can provide a useful reference and guidance for anyone who is interested in building an automatic plant watering system using Arduino Uno.*

Keywords: Microcontroller, Arduino uno, Soil moisture sensor

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