ARDUINO BASED WATERING DEVICE

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A project report submitted in partial fulfillment of the requirements for the award of the degree of Diploma of Electrical Engineering (Electronics)

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"I declare that this report entitled "ARDUINO BASED WATERING DEVICE" is the result of my own group research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in the candidature of any other degree."

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ABSTRACT

Arduino Based Watering Device is built to help or to make it easier for those who are interested in planting to manage their plant wisely. This project consists of Arduino UNO which controls the time for the watering device to work. The time is set based on the coding in the Arduino UNO. The moisture sensor placed in the soil is used to detect the condition of the soil. The moisture sensor estimates the amount of water in the soil based on the dielectric constant, or the soil's ability to transmit electricity. The dielectric constant increases as the soil's water content increases, hence produces an estimation of how much water the soil can hold. As for the watering device, it contains a circuit that controls the solenoid valve. Once the moisture sensor indicates sub-optimum moisture in the soil, the watering device turns on. The watering device waters the plants until the moisture sensor detects that soil holds adequate moisture. The watering device then shuts off. This Arduino Based Watering Device is proved to be a very useful device in managing plant.

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