IOT BASED AUTOMATIC WATER DISPENSER FOR PLANTS

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Abstract:

In daily operations related to farming or gardening watering is the most important practice and the most labor-intensive task. No matter whichever weather it is, either too hot and dry or too cloudy and wet, you want to be able to control the amount of water that reaches your plants. Modern watering systems could be effectively used to water plants when they need it. But to implement this there are two major tasks i.e., Amount of water to be poured and the time to be poured. In order to replace manual activities and making gardener's work easier, we have created automatic plant watering system. By this method we can water our plants by calculating the moisture content in the soil and water our plants manually or automatically by using a mobile application. By adding automated plant watering system to the garden or agricultural field, you will help all of the plants reach their fullest potential as well as conserving water. Using sprinklers drip emitters, or a combination of both, we have designed a system that is ideal for every plant in the yard. To note the moisture content in the soil we have used sensor that will detect the amount of water in the soil. In this sensor we have pre-determined the moisture content according to the plant. If it reaches below that level the motor starts running and waters the plant it also sends a mobile notification to our mobile application. The motor runs till the moisture content of the soil reaches up to that pre-determined amount. This moisture content can be monitored by our mobile phone and by our mobile phone we can water our plants. Generally, plants need to be watered twice a day, morning and evening. Thus, the microcontroller is programmed to water plants two times per day. System is designed in such a way that it reports its current state as well as remind the user to add water to the tank. All these notifications are made through mobile application. We hope that through this prototype we all can enjoy having plants, without being worried about absent or forgetfulness.