## **Student IT Research Exposition**





## HOME GARDEN MONITORING THROUGH IOT

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ABSTRACT: It is a project in which we use components based on the Internet of Things to reduce human effort and make the task more efficient. Through this project, we are making a device that can sense soil moisture to alert us in watering house plants. This is done by inserting a probe under the soil, so the sensor senses whether the water in the soil is sufficient or in need of water. We know this by a signal from the LED light located on the outside of the device or by a buzzer that emits a beeping sound whenever the soil is dry and needs water. This project will use the concept of IOT using Arduino UNO and Moisture Sensor to automatically monitor the moisture of the soil in the home garden. Once the soil moisture reaches a critical level, a warning will be shown through a LED light or a buzzer depending on criticality of soil moisture, so that the owner can water the plants again. This project will be the first step in coming up with an automatic plant watering system at home using the IOT technology. In this project, we develop an IOT device that will monitor the moisture in the soil and notify the user if the plant needs water or not.

Keywords: Garden Monitoring, IoT