E-Farm
(An IoT based Irrigation system)

-Team Micro
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Problem Statement

- Due to the population explosion occuring in our country, the pressure to produce more food per unit area of land is increasing. In such a situation it would be quite useful to a farmer if the amount of resources used, such as water, use is optimised.
- Our project intends to use sensor data to automate the irrigation process as well as provide this information to the farmer to help him make more informed decisions.

Components used

- For the node station:

  Arduino uno, Temperature and humidity sensor, Soil moisture sensor, Water level sensor, Water pump, RF module

- For the base station:

  Arduino nano, Bluetooth module, RF module

Working

- The sensors collect respecive data from the field. The arduino collects this data and sends it to the base station via an RF module.
- An app present on the farmer’s phone allows him to enter the crop he desires to irrigate. This information is also sent to the base station via bluetooth.
- Based on both these inputs the base station arduino decides for how much time to switch on the water pump i.e what is the water level required for the crop.

Block Diagram