1

Define your problem statement

5 minutes

Different field parameters must be monitored, and a decision must be made on whether to water the plants or not.

2

Brainstorm

10 minutes

Samritha S

- L293D USED AS MOTOR DRIVER
- MQTT PROTOCOL FOR COMMUNICATION
- BH1750 LIGHT INTENSITY SENSOR WITH I2C
- THERMOCOUPLE BASED SENSOR

Dhevaki V

- RTD SENSOR FOR TEMPERATURE CONTROL
- SPI -SERIAL PERIPHERAL INTERFACE FOR COMMUNICATION
- IoT CORE COULD BE USED FOR MANAGING DATA
- THINGS BOARD FOR DATA COLLECTION

Aakash J

- SOIL MOISTURE SENSOR
- SOLENOID VALVE FOR SPRINKLER
- LORA WAN PROTOCOL
- DRIVER SHIELD FOR MOTOR CONTROL

Janani S

- SOIL METER SENSOR FOR MEASURING MOISTURE
- SERIAL USART COULD BE USED FOR COMMUNICATION
- NODE RED USED AS PROGROMMIN GTOOL
- RS-PH-N01- TR-1 CAN BEUSED AS PHSENSOR

Gowtham S

- HUMIDITY-DHT11 SENSOR
- SEMICONDU-CTORBASED SENSOR
- USE OPEN WEATHER MAP FOR OBTAINING THE GLOBAL WEATHER DATA
- DECISION TREE ALGORITHM

3

Group ideas

20 minutes

SENSORS

- SOIL NPK SENSOR
- RTD SENSOR
- RS-PH-N01 SENSOR
- BH1750 SENSOR

PROTOCOLS

- LORA WAN
- MQTT

PROGRAMMING TOOLS

- NODE RED
- ONLINE SIMULATION USING TINKERCAD
- ARDUINO IDE

INTERFACING MOTORS

- SOLENOID VALVE
- L293D USED AS MOTOR DRIVER

4

Prioritize

20 minutes