

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.

Brainstorm

10 minutes

Samritha S

L293D  
USED AS  
MOTOR  
DRIVER

MQTT PROTOCOL  
FOR  
COMMUNICATION

BH1750  
LIGHT  
INTENSITY  
SENSOR WITH  
I2C

THERMOCOUPLE  
BASED SENSOR

Aakash J

SOIL  
MOISTURE  
SENSOR

SOLENOID VALVE  
FOR SPRINKLER

LORA WAN  
PROTOCOL

DRIVER SHIELD FOR  
MOTOR CONTROL

Gowtham S

HUMIDITY-  
DHT11  
SENSOR

SEMICONDU-  
CTORBASED  
SENSOR

USE OPEN  
WEATHER MAP  
FOR OBTAINING  
THE GLOBAL  
WEATHER DATA

DECISION  
TREE  
ALGORITHM

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

Janani S

SOIL METER  
SENSOR  
FOR  
MEASURING  
MOISTURE

SERIAL USART  
COULD BE USED  
FOR  
COMMUNICATION

NODE RED  
USED AS  
PROGRAMMIN  
GTOOL

RS-PH-N01- TR-1  
CAN BEUSED AS  
PHSENSOR

Group ideas

20 minutes

SENSORS

SOIL  
NPK  
SENSOR

RTD  
SENSOR

RS-PH-  
N01  
SENSOR

BH1750  
SENSOR

PROGRAMMING TOOLS

NODE  
RED

ONLINE  
SIMULATION  
USING  
TINKERCAD

ARDUINO  
IDE

INTERFACING MOTORS

SOLENOID  
VALVE

L293D  
USED AS  
MOTOR  
DRIVER

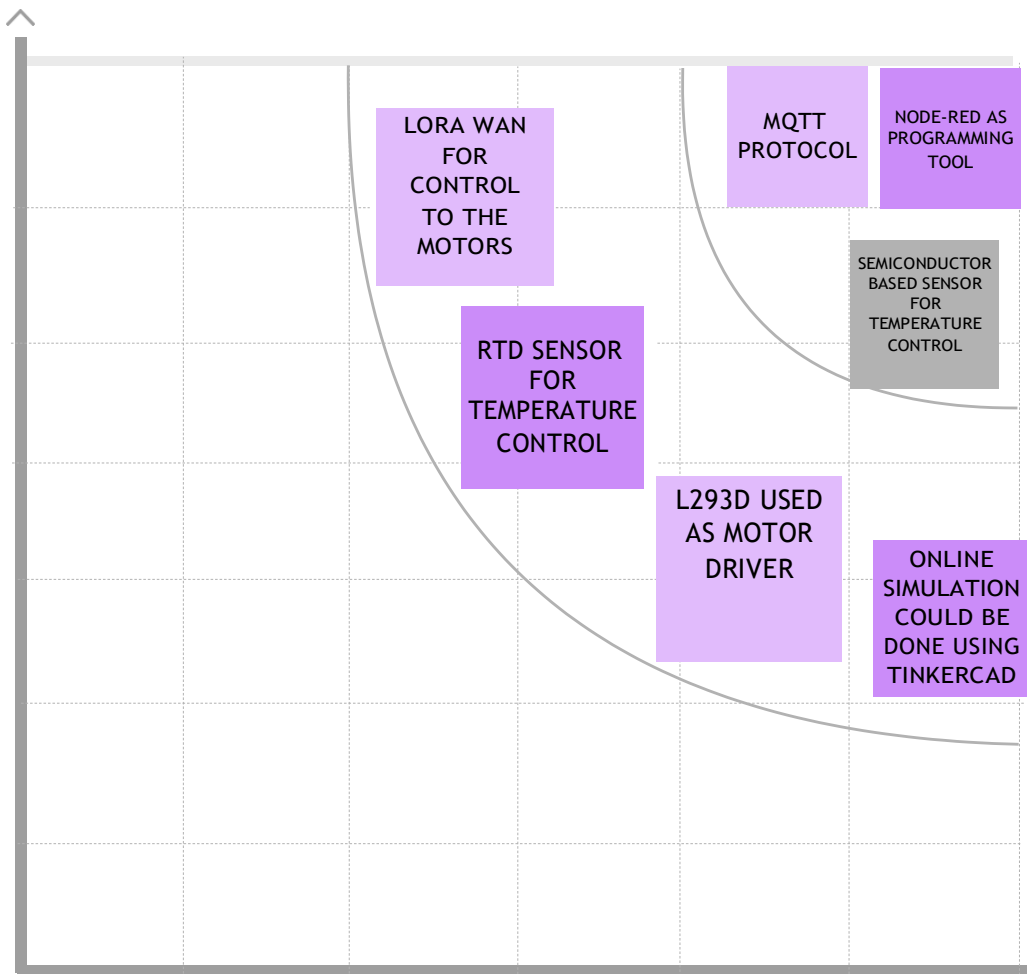
PROTOCOLS

LORA  
WAN

MQTT

Prioritize

20 minutes



Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

