Project Design Phase-I
Solution Architecture

Date	10 October 2022
Team ID	PNT2022TMID20449
Project Name	Project – IOT Enabled Smart farming application
Maximum Marks	4 Marks
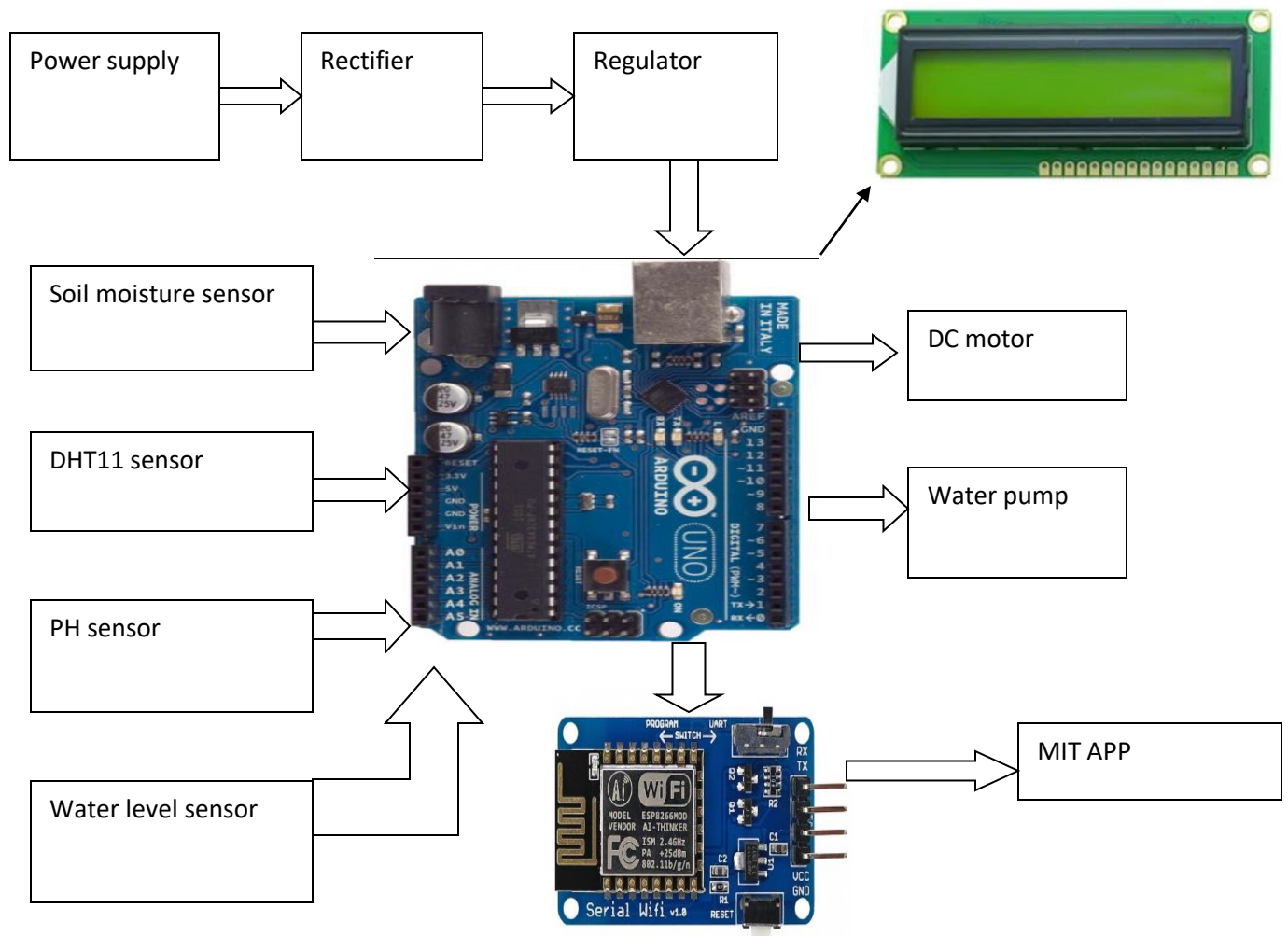
The soil parameters to be taken into consideration includes

- Soil temperature
- PH of the soil
- Soil moisture content
- Water level

To measure the above mentioned parameters different sensors are to be employed

The values obtained from the sensor is stored in the IBM cloud

The data obtained from the various sensors is processed using Arduino UNO

programming tool – NODE RED is employed here to write the hardware, software and APIs.

The MQTT protocol is followed for the communication.

All the collected data are provided to the user through a mobile application that was developed using the MIT app inventor.

The farmer could make a decision through an app,whether to water the crop or not depending upon the obtained sensor values. By using the app they can remotely operate the water pump.