Tea Garden Automated Sprinkler System and Mobile App using IoT

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Supervised by:

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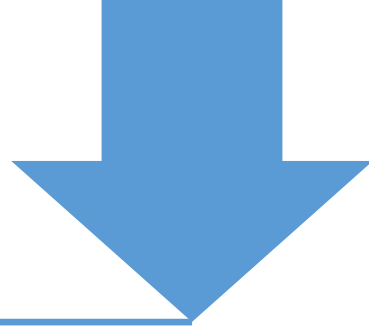
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Problem Statement

- Overuse and less use of the water
- Watering tea plant depends on humidity or rain
- Restrictions on multiple species of tea plants in same land

Motivation

- No need to go outside to water
- No need to actively monitor
- Saves time
- Saves water
- Saves money
- Boring process to easy process

Related works

- Chandan Kumar Sahu and Pramitee Behera, "**A low cost smart irrigation control system**"

- Joaqu´ın Gutierrez, Juan Francisco Villa-Medina, "**Automated irrigation system using a wireless sensor network and gprs module**"

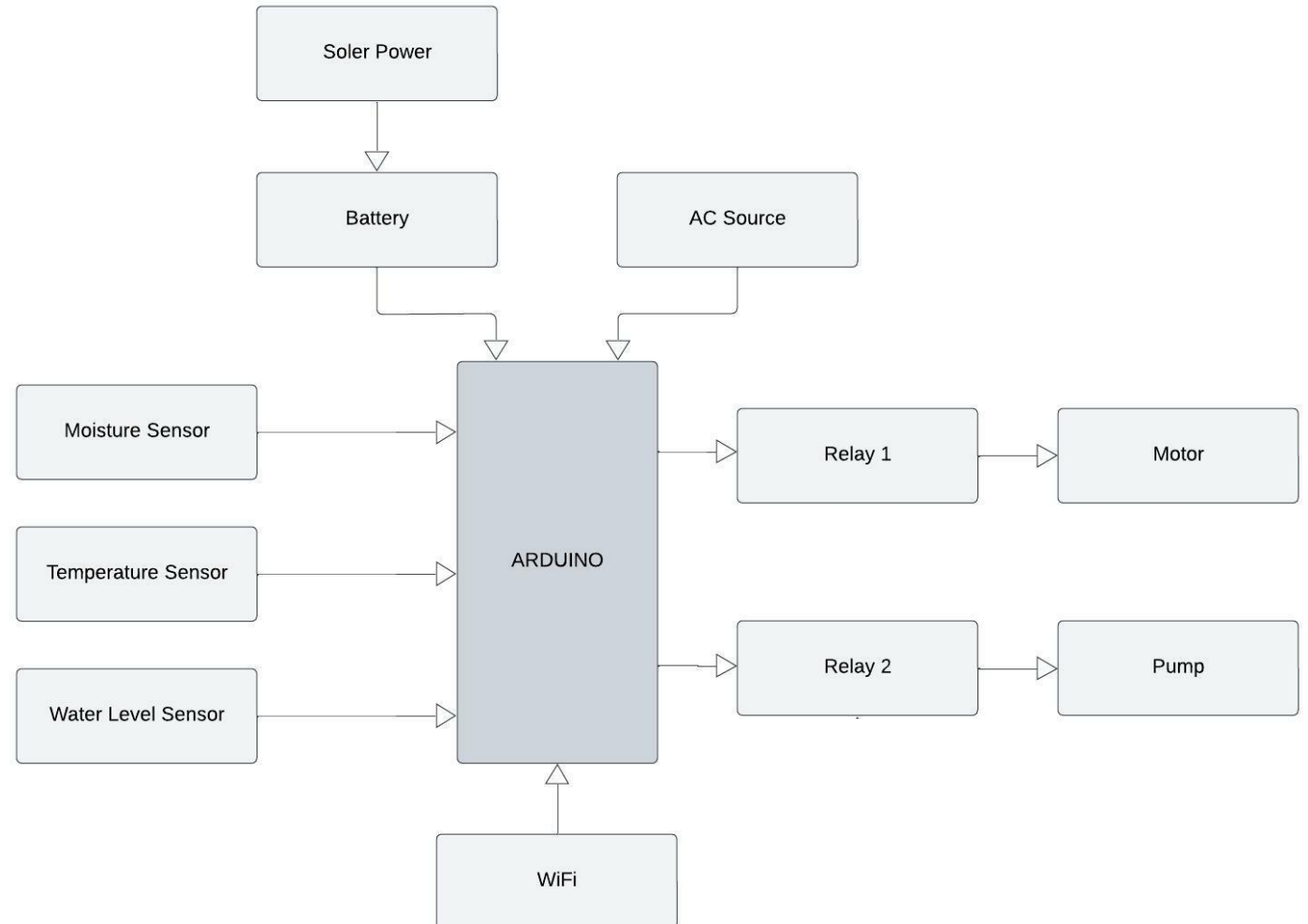- Karan Kansara, Vishal Zaveri, "**Sensor based automated irrigation system with iot**"
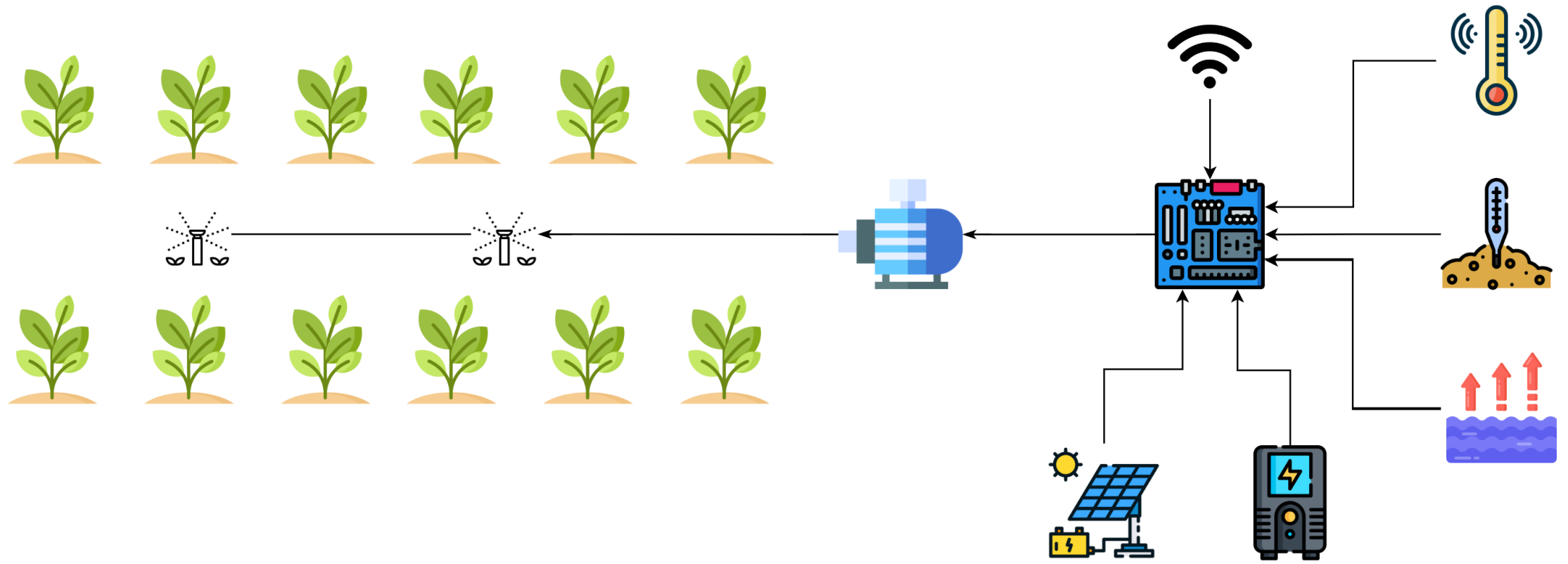
Methodology

Sensors used:
- Soil moisture sensor
- Temperature sensor
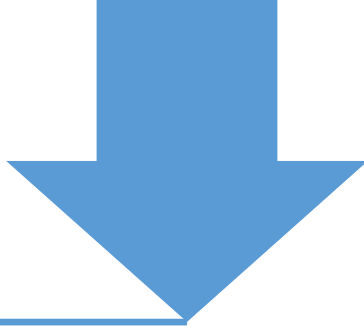- Water level detector

Tools:
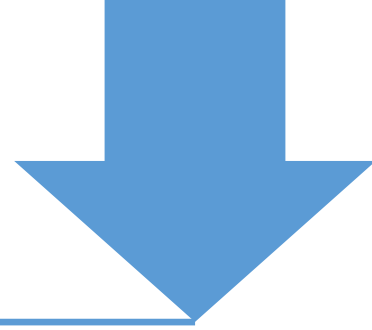- Arduino
- Relay

Methodology

Preliminary Result

- The proposed system is not build yet.
- Some of the devices are been collected.

Preliminary Result

| Tool Name	Approximate Cost (BDT)
Arduino UNO	1050
Soil Moisture Sensor	820
Temperature Sensor	100
Water Level Sensor	90
WiFi Module	230
Solar Panel	720
Bread Board	140
Power Adapter	690
others	200
Total	**4040**

Future Work

- Arrange all the devices, tools and sensors
- Visiting a tea garden
- Implement the system
- Implement the mobile app
- Work on it to make it more better

Future Work
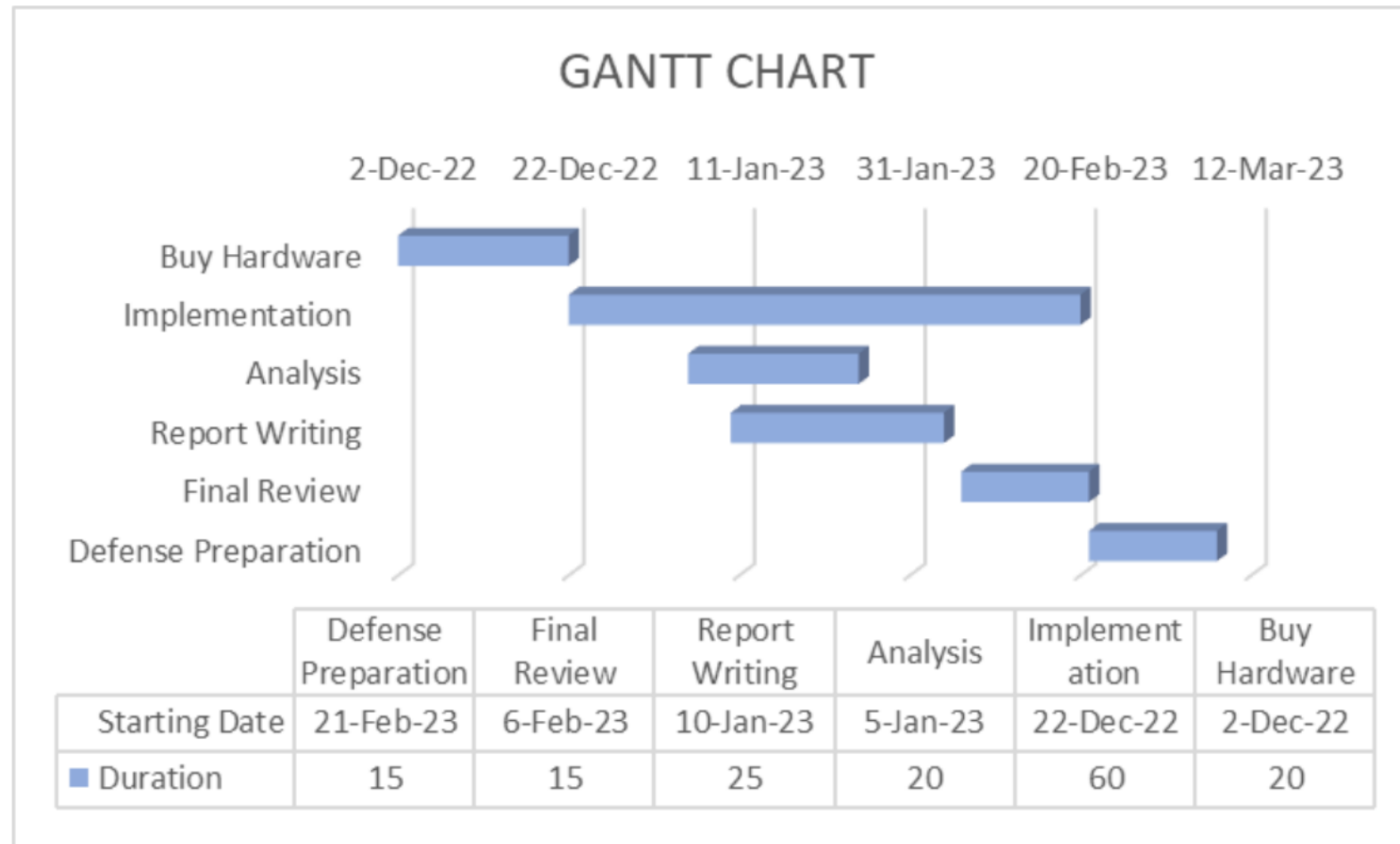
Conclusion
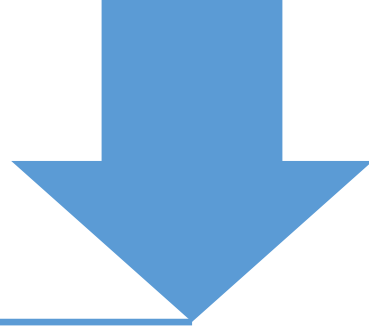
- This project provides smart irrigation system
- This system helps in:
  - Reducing:
    - Time
    - Cost
    - Workload
  - Saving water
  - Multitasking

Thank You