Smart Irrigation: Automating Field Watering

By

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CSE3066

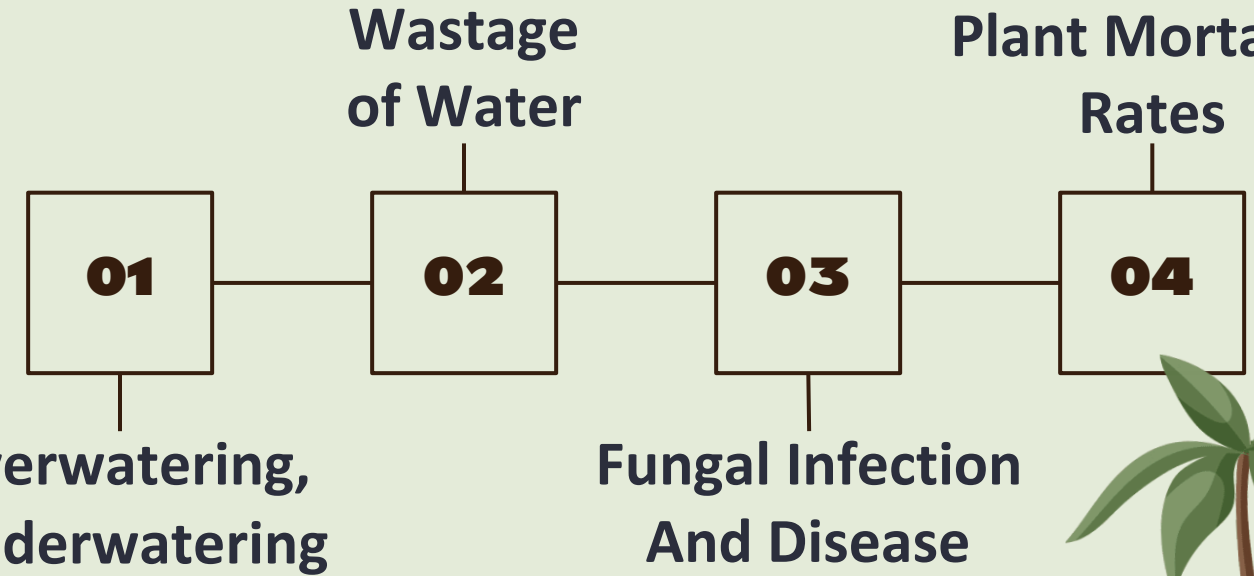
Mobile Application for IoT

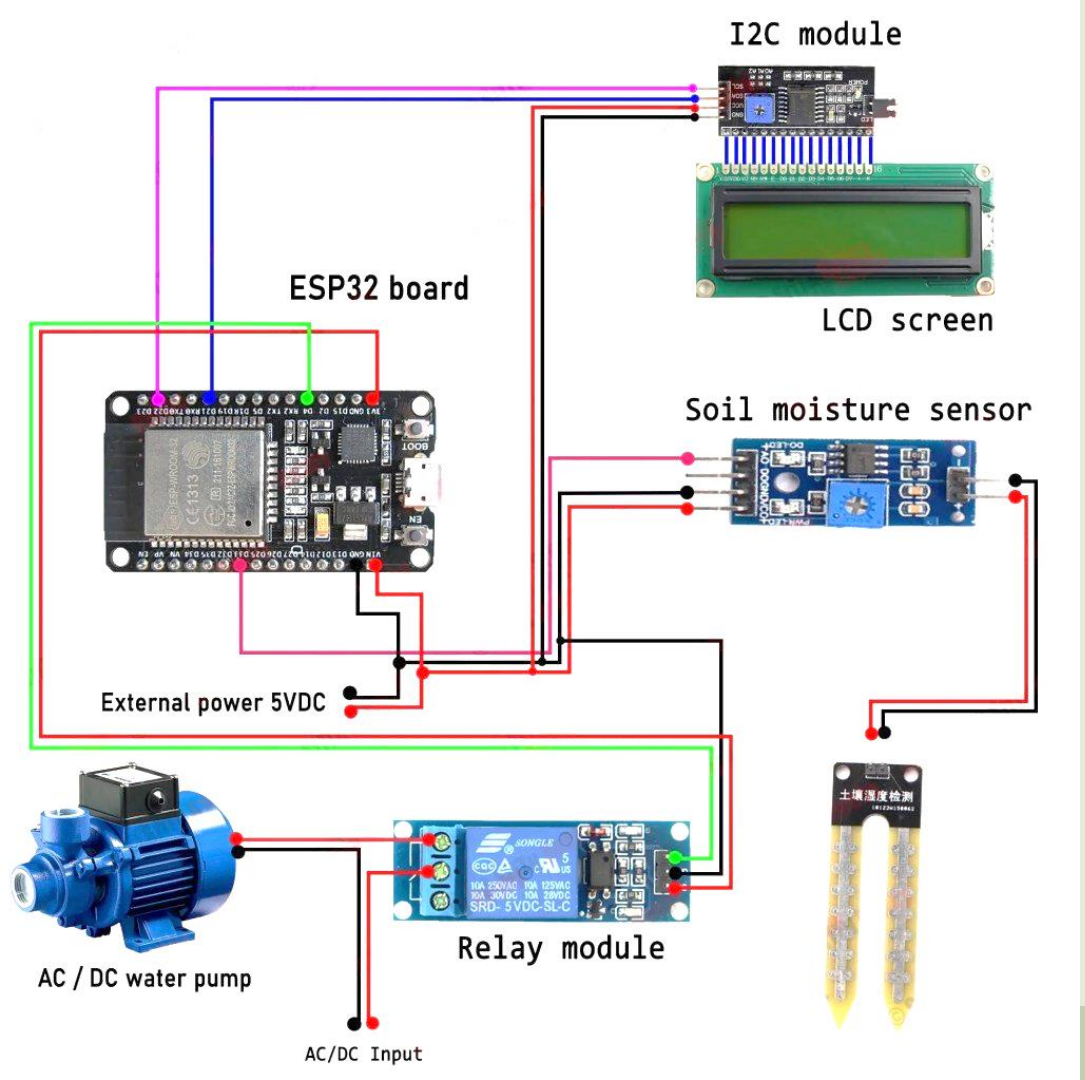
Automating Field Watering with Soil Moisture Sensing and Control with Mobile App

The plant watering maintaining system is an innovative solution for keeping plants healthy. It automates the watering process based on the specific needs of each plant, ensuring optimal growth and vitality.

Main Aim

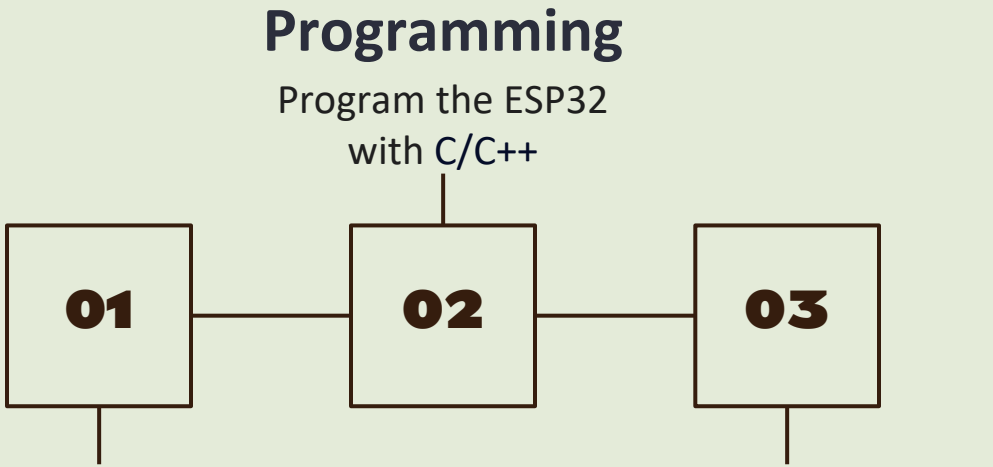
“What’s the use of this ?”





Circuit Connection

Setup Walkthrough



Blynk

- Mobile Access
- Real-time Insights
- Cloud based commutation
- Customizable Schedules
- Plant Health Monitoring

Smart Control

Challenges For this Application:

- **Cost of Implementation:** One of the primary challenges is the initial cost of implementing smart irrigation systems, including the purchase of sensors, control valves, and the development of mobile applications.

- **Maintenance:** Ensuring the proper functioning of sensors and valves requires regular maintenance, which can be challenging for farmers, especially in remote areas.

- **Data Management:** Managing the large amounts of data generated by soil moisture sensors and other components can be complex, requiring efficient storage and analysis solutions.

- **Integration with Existing Systems:** Integrating smart irrigation systems with existing farm management systems and equipment can be challenging and may require additional investments.

- **Power Supply:** Ensuring a stable power supply for sensors and control valves, especially in remote agricultural areas, can be a challenge.

Conclusion

Smart irrigation isn't just for small farms it's a game-changer for large-scale agricultural too. Its scalability and precision mean better efficiency, less water waste, and healthier crops across big fields, making it essential for sustainable farming on a larger scale.

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