Components:

1. Raspberry Pi 3

2. LCD LM016L (16x2 Display)

3. LM35 Temperature Sensor

4. Soil Moisture Sensor

5. Rain Sensor

6. DC Motor with Relay Module

7. ADC Module (MCP3008)

8. GSM Module (SIM800/900)

9. Power Supply (5V 2A)

Connections:

- LM35 → ADC Channel 0

- Soil Moisture Sensor → ADC Channel 1

- Rain Sensor → GPIO 25

- Relay Module → GPIO 24

- LCD:

  - RS → GPIO 4

  - E → GPIO 17

  - D4 → GPIO 18

  - D5 → GPIO 27

  - D6 → GPIO 22

  - D7 → GPIO 23

- GSM Module → UART (TX, RX pins)

- DC Motor → Relay output

Power Connections:

- Raspberry Pi: 5V micro USB

- Sensors: 3.3V/5V from GPIO

- Motor: Separate 12V supply via relay

Proteus assemble