| **Component** | **Type** | **Pin Connections (ESP32)** |
| --- | --- | --- |
| **ESP32** | Microcontroller | - |
| **DHT22** | Temperature & Humidity Sensor | VCC → 3.3V, GND → GND, DATA → GPIO4 |
| **Capacitive Soil Moisture Sensor** | Analog Sensor | VCC → 3.3V, GND → GND, AOUT → GPIO34 |
| **OLED Display (Optional)** | I2C Display (128x64) | VCC → 3.3V, GND → GND, SDA → GPIO21, SCL → GPIO22 |
| **Wi-Fi Module (Built-in)** | Wireless Communication | Used for cloud integration (Blynk/Firebase) |