

5.No	Component	Pin/Port on Component	Connects To (ESP32 Pin)
1	ESP32	VIN / 3.3V	3.3V / 5V (depending on module)
2	DHT22 Temperature & Humidity Sensor	VCC	3.3V
3	GND	GND	GND
4	DATA	GPIO17	GPIO17 (must match DEFINITION)
5	Capacitive Soil Moisture Sensor	3.3V or 5V	Check sensor specs, 3.3V safer for ESP32
6	Rel/ac	GND	GND
7	Analog Output	GPIO34 (ADC)	GPIO26 (must match DEFINITION)
8	Relay Module (1-Channel)	5V	5V
9	IN	GND	GPIO26 (must match define RELAYVIAE16)
10	16x2 12C LCD	5V	GND Use 5V for backlight
11	SDA	GPIO	GPIO21 GPIO21
12	SCL	GPIO	GPIO22 GPIO22
13	Water Pump (optional)	+12V / VCC	Relay NO terminal
14	GND	GND	Relay COM terminal

Step-by-Step Wiring Instructions

1. Power ESP32 via USB or external 1 and 5V/3.3V supply.
2. Connect DHT22 (sensor) VCC + 3.3V, GND + GND, DATA → GPIO17.
3. Connect Soil Moisture Sensor VCC + 3.3V, GND + GND, Analog → ADC.
4. Connect Relay Module VCC + 5V, GND + GND, IN + GPIO26.
5. Connect Pump to relay. Pump + to NO. Pump – to COM ↗