

Connections:

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MQ2 Gas Sensor:

VCC → NodeMCU 3.3V

GND → NodeMCU GND

A0 → NodeMCU A0

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LCD 1602A Display:

GND → NodeMCU GND

VDD → NodeMCU 3.3V

V0 → Potentiometer middle pin (for contrast adjustment)

RS → NodeMCU D6

RW → GND

E → NodeMCU D7

D4 → NodeMCU D1

D5 → NodeMCU D2

D6 → NodeMCU D3

D7 → NodeMCU D4

BLA → NodeMCU 3.3V (backlight positive)

BLK → NodeMCU GND (backlight negative)

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Potentiometer:

One leg → NodeMCU 3.3V

Other pin → NodeMCU GND

Middle pin → LCD V0

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LEDs:

Green LED:

Positive pin → NodeMCU D1 (with resistor)

Negative pin → GND

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Yellow LED:

Positive pin → NodeMCU D2 (with resistor)

Negative pin → GND

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Red LED:

Positive pin → NodeMCU D3 (with resistor)

Negative pin → GND

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Buzzer:

Positive pin → NodeMCU D5 (with resistor)

Negative pin → GND