

MQ-2 Gas sensor module



Technical Manual Rev 1r0



This breakout board provides a convenient way to start using the popular MQ-2, a smoke/LPG/CO Gas Sensor Module. The MQ-2 detects the concentrations of combustible gas in the air and outputs a corresponding analog voltage. The MQ-2 is sensitive to LPG, i-butane, propane, methane, alcohol, and hydrogen. It can be used in detecting equipments for gas leakages inside the home or industry. Although the sensor works great, please use certified equipment for reliable detection of gas leakages.

Features:

- *Fast response*
- *High sensitivity*
- *Wide range of detection*
- *It can measure concentration of flammable gas of 300 to 10,000 ppm.*

General Specifications:

Input supply voltage: 5VDC
Current limit: min.150 ~ 250mA(best)
Output: Digital and Analog
0.1 - 0.3V Clean, 4v highest detection
Type sensor: MQ-2 gas
PCB Dimensions: 32mm x 20mm

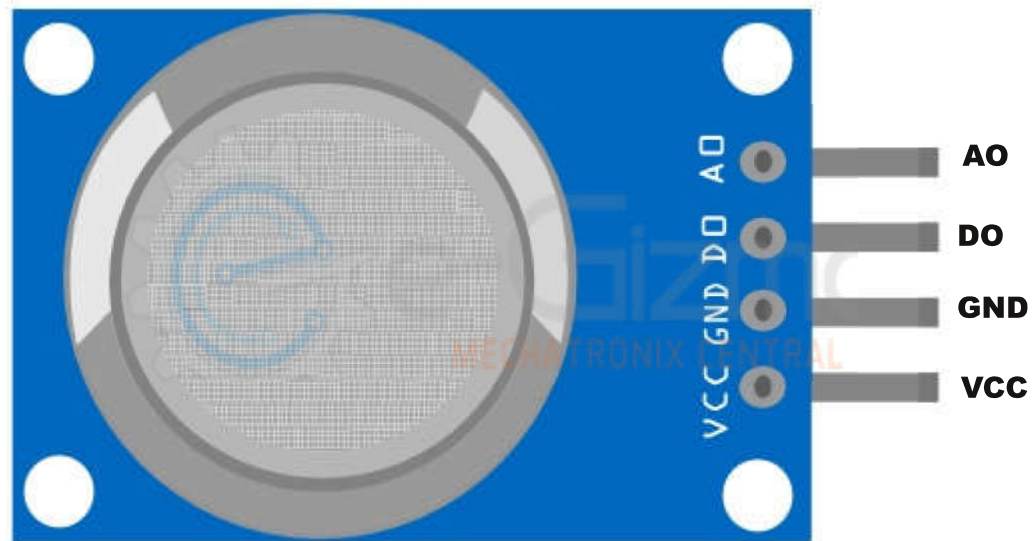


Figure 1: Major parts of MQ-2 Gas sensor module.

Table 1: Range of sensing different gas levels.

GAS	PPM ranges
LPG	5000 to 10000
Methane (CH ₄)	up to 20000
Sensitive to smoke	

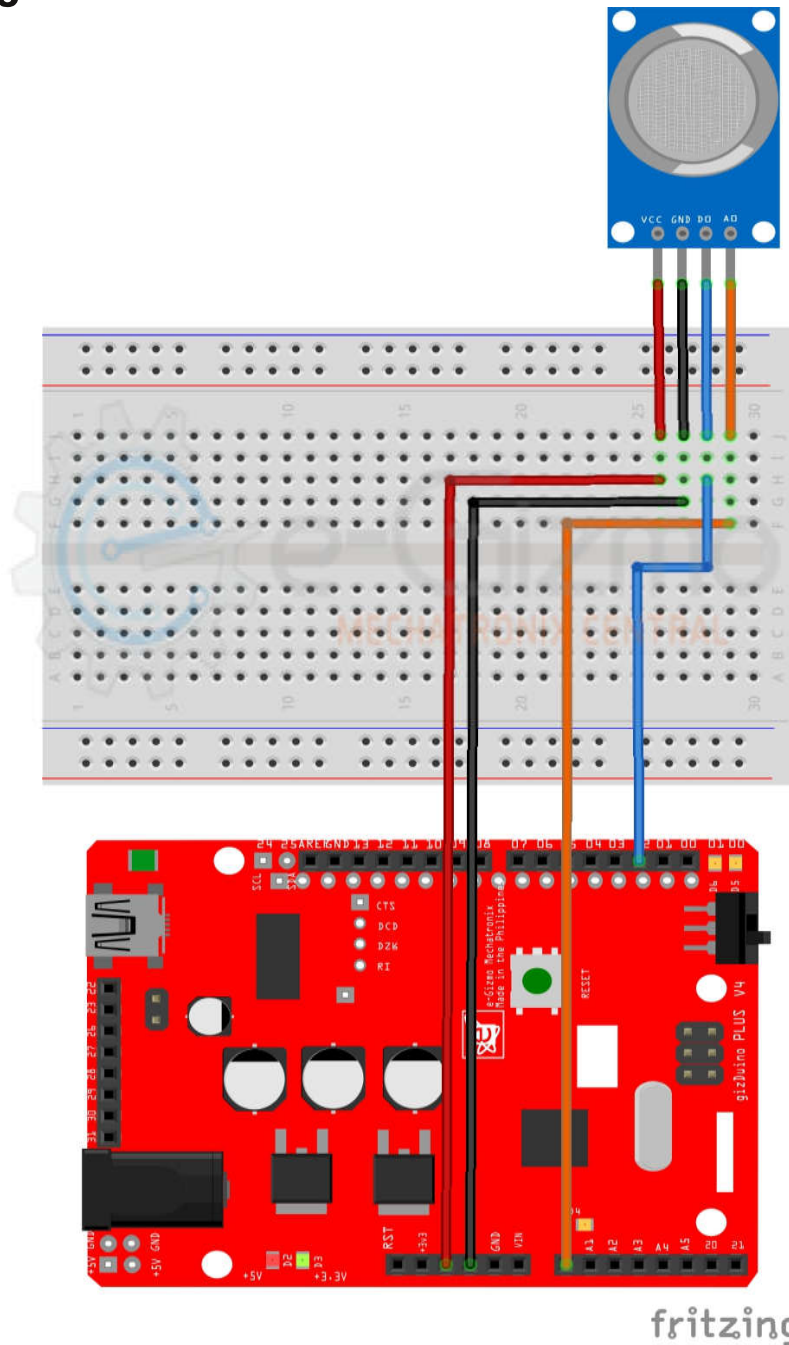
Wiring Connections:

Gizduino to Gas sensor

+5V	VCC
GND	GND
D2	DO
A0	AO

*The greater the gas concentration,
the greater the output voltage.*

*The lower the gas concentration,
the lower the output voltage.*



```
/*  
  e-Gizmo MQ-2 Gas sensor module  
  
  This example code reads an analog input on pin 0  
  and on pin 2 digital input, then prints the  
  result to the serial monitor.  
  
  Codes by  
  e-Gizmo Mechtronix Central  
  http://www.e-gizmo.com  
  August 10,2017  
  
*/  
// pins assignment  
int OUTPUT_PIN = 2;  
// the setup routine runs once when you press reset:  
void setup() {  
  // initialize serial communication at 9600 bits per second:  
  Serial.begin(9600);  
  pinMode(OUTPUT_PIN, INPUT);  
}  
  
// the loop routine runs over and over again forever:  
void loop() {  
  // read the input on analog pin 0 and pin 2:  
  int SENSOR_VALUE = analogRead(A0);  
  int OUTPUT_STATE = digitalRead(OUTPUT_PIN);  
  // print out the value you read:  
  Serial.print(SENSOR_VALUE);  
  Serial.print(" ");  
  Serial.println(OUTPUT_STATE);  
  delay(10);    // delay in between reads for stability  
}
```