

Interfacing of MQ135 Air Quality Sensor



Air Quality Sensor(MQ-135)

MQ135 Gas Sensor module for Air Quality having Digital as well as Analog output. Sensitive material of MQ135 gas sensor is SnO_2 , which with lower conductivity in clean air. When the target combustible gas exist, The sensors conductivity is more higher along with the gas concentration rising. MQ135 gas sensor has high sensitivity to Ammonia, sulfide and Benzene steam, also sensitive to smoke and other harmful gases. It is with low cost and suitable for different applicatic



Working of MQ135 (Air Quality Sensor)

- The MQ-135 gas sensor senses the gases like ammonia, nitrogen, oxygen, alcohols, aromatic compounds, sulfide and smoke.
- MQ-135 gas sensor can be implemented to detect the smoke, benzene, steam and other harmful gases. It has the potential to detect different harmful gases.
- The MQ-135 gas sensor consists of a tin dioxide (SnO_2), a perspective layer inside aluminium oxide micro tubes (measuring electrodes) and a heating element inside a tubular casing.
- The end face of the sensor is enclosed by a stainless steel net and the back side holds the connection terminals.

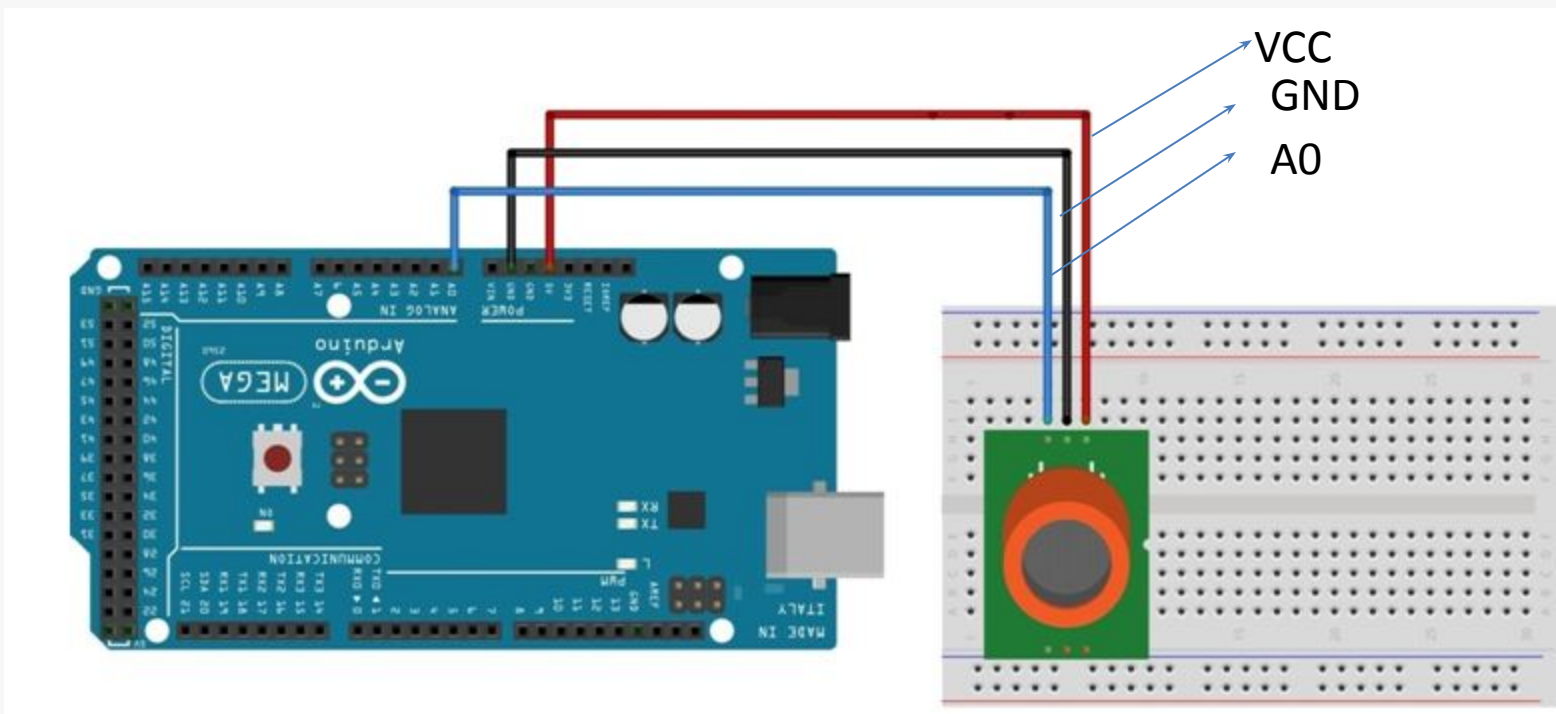
Working of Air Quality Sensor

Basically in this project we have interfaced Air Quality sensor with Arduino Mega to check the level of smoke in the environment which has been shown on serial monitor in Arduino IDE.

Components required

- Arduino Mega
- MQ-135 (Air Quality Sensor)
- Breadboard
- Jumper wires

Connection Diagram



MQ135 sensor connections :

- Connect Ao pin of MQ135 sensor with Ao pin of Arduino Mega.
- Connect Vcc pin of MQ135 sensor with Arduino's (+5V).
- Connect GND pin of MQ135 sensor with Arduino's GND pin.

Interfacing_of_air_quality_sensor | Arduino 1.8.19

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```
Interfacing_of_air_quality_sensor
pinMode(smokeA0, INPUT);
Serial.begin(9600);
}

void loop() {
  int analogSensor = analogRead(smokeA0);

  Serial.print("Pin A0: ");
  Serial.println(analogSensor);
  // Checks if it has reached the threshold value
  /*if (analogSensor > sensorThres)
  {
    digitalWrite(redLed, HIGH);
    digitalWrite(greenLed, LOW);
    digitalWrite(buzzer,HIGH);
  }
  else
  {
    digitalWrite(redLed, LOW);
    digitalWrite(greenLed, HIGH);
    digitalWrite(buzzer,LOW);
  }*/
  delay(100);
}
```

Project Link : <https://youtu.be/evlos529wgM>