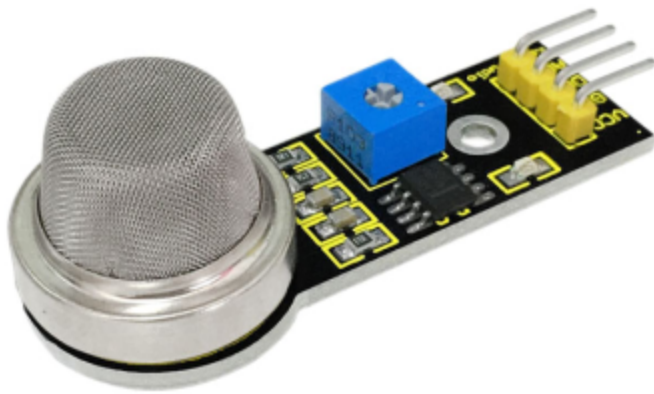

keyestudio WiKi

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Dec 30, 2025

KEYESTUDIO KS0047 SENSOR

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1. INTRODUCTION

MQ135 adopts SnO_2 as its gas sensitive material because SnO_2 has low electrical conductivity in the clean air.

So when surrounded by polluted air, the electrical conductivity of MQ135 will increase with the increase of pollutants, and the change in electrical conductivity can be converted to corresponding output signal.

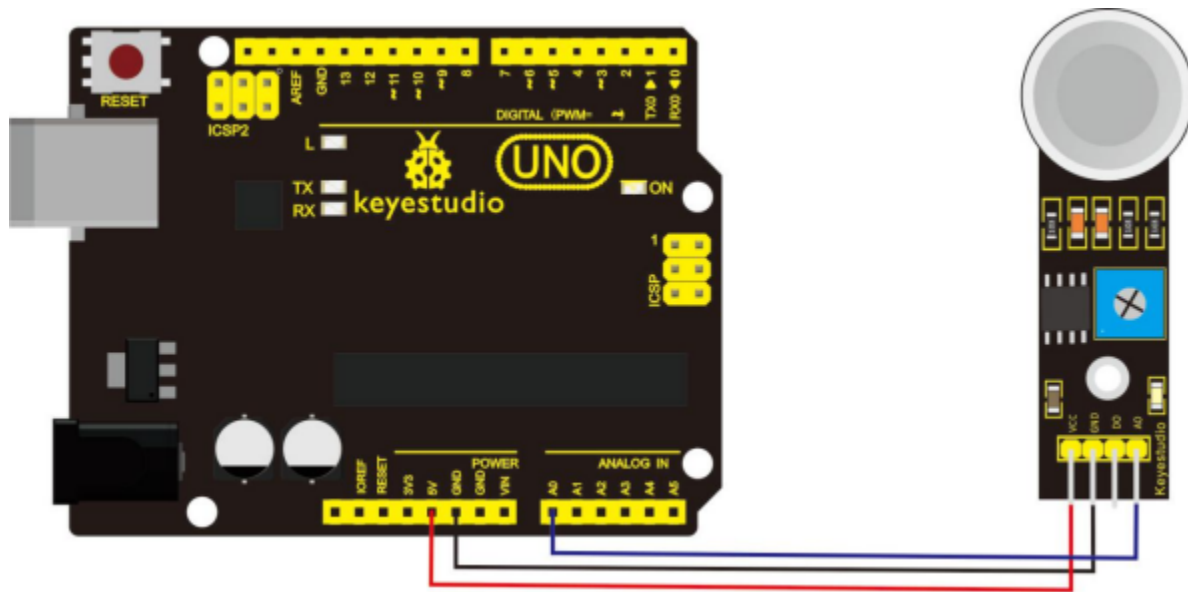
MQ135 has a high sensitivity to Ammonia, sulfide, benzene vapor, smoke and other harmful gas.

It can detect various harmful gases, making it a cost-effective choice suitable for multiple applications.

2. SPECIFICATION

- Product model: MQ135
- Product type: Semiconductor gas sensor
- Target gas: Ammonia; methylbenzene; hydrogen
- Standard circuit: Loop voltage V_c 24V DC
- Heater voltage: V_H $5.0V \pm 0.2V$ AC or DC
- Load resistance: Adjustable R_L
- Heater power consumption: P_H 900mW
- Sensitivity: S $R_s(\text{in air})/R_s(100\text{ppmNH}_3)$
- Concentration slope: 0.6 ($R_{100\text{ppm}}/R_{50\text{ppm NH}_3}$)
- Standard testing temperature/humidity: $20^\circ\text{C} \pm 2^\circ\text{C}/65\% \pm 5\%\text{RH}$
- Standard testing circuit: $V_c: 5.0V \pm 0.1V$; $V_H: 5.0V \pm 0.1V$
- Preheating time: 48H

3. CONNECTION DIAGRAM



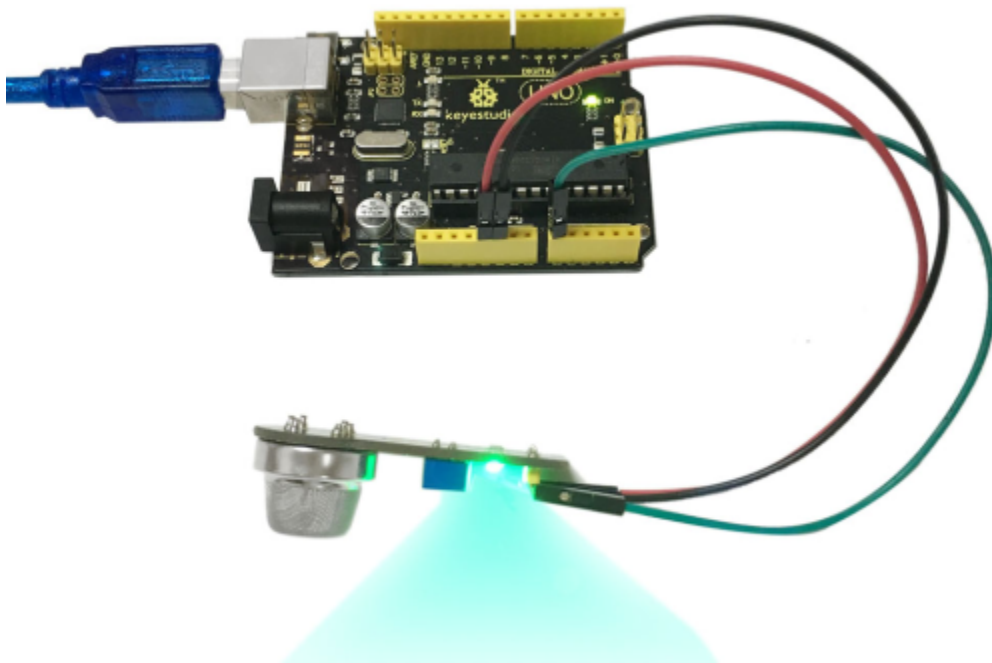
4. SAMPLE CODE

Download code

```
void setup()
{
  Serial.begin(9600);
}

void loop()
{
  int sensorValue = analogRead(A0);
  Serial.println(sensorValue, DEC);
}
```


5. RESULT



Open the Serial monitor to check the pollution index of the air surrounds you:

