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## TA0128 - MQ135 Air Quality Sensor



### **Introduction:**

MQ135 adopts  $\text{SnO}_2$  as its gas sensitive material because  $\text{SnO}_2$  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.

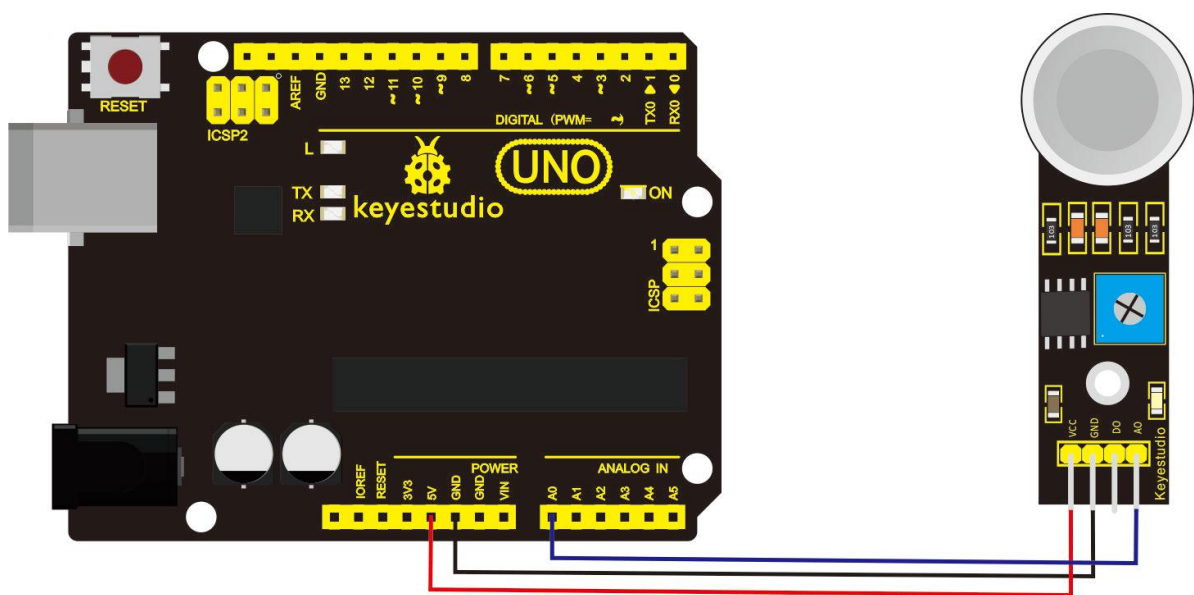
MQ135 has a high sensitivity to Ammonia, sulfide, benzene vapor, smoke and other harmful gas.

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

### **Specification:**

- Product model: TA0135
- Product type: Semiconductor gas sensor
- Target gas: Ammonia; methylbenzene; hydrogen
- Standard circuit: Loop voltage  $V_c \leq 24V$  DC
- Heater voltage:  $V_H 5.0V \pm 0.2V$  AC or DC
- Load resistance: Adjustable  $R_L$
- Heater power consumption:  $P_H \leq 900mW$
- Sensitivity:  $S R_s(\text{in air})/R_s(100ppmNH_3) \geq 5$
- Concentration slope:  $\alpha \leq 0.6$  ( $R_{100ppm}/R_{50ppm} NH_3$ )
- Standard testing temperature/humidity:  $20^\circ C \pm 2^\circ C / 65\% \pm 5\%$  RH
- Standard testing circuit:  $V_c: 5.0V \pm 0.1V$ ;  $V_H: 5.0V \pm 0.1V$
- Preheating time:  $\geq 48H$

### Connection Diagram:

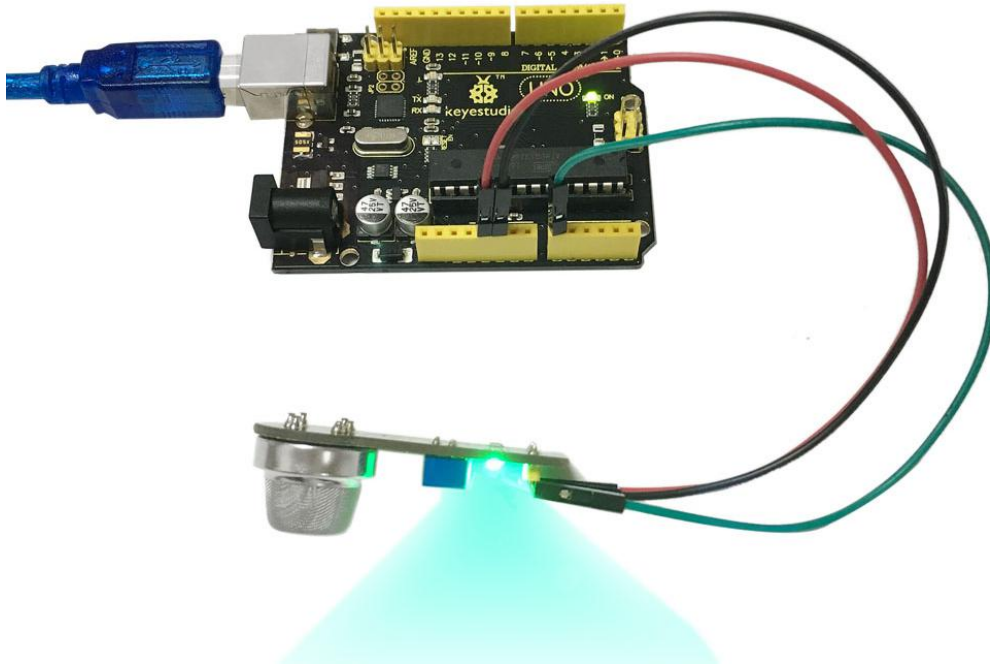


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## Sample Code:

```
*****  
  
/*  
  
  AnalogReadSerial  
  
  Reads an analog input on pin 0, prints the result to the serial monitor  
  
  This example code is in the public domain.  
  
  */  
  
void setup() {  
  Serial.begin(9600);  
}  
  
void loop() {  
  int sensorValue = analogRead(A0);  
  Serial.println(sensorValue, DEC);  
}  
  
*****
```

## Phenomenon:



Open the serial monitor to check the pollution index of the air surrounding you:

