



MQ 8 Gas sensor is another one of Metal Oxide Semiconductor (MOS) type Gas Sensor of MQ Gas Sensors family involving MQ 2, MQ 4, MQ 3, MQ 7, MQ 135, etc. It is mainly used as a Hydrogen detects. This sensor contains a sensing element, mainly aluminum-oxide based ceramic, coated with Tin dioxide ( $\text{SnO}_2$ ), enclosed in a stainless-steel mesh. Whenever  $\text{H}_2$  gas comes into contact with the sensing element, the resistivity of the element changes. The change is then measured to get the concentration of the gases present. This hydrogen sensor has a small heating element present, which is needed to preheat the sensor to get it in the working window. It can detect the  $\text{H}_2$  gas in the concentration range of 100 to 1000ppm. As  $\text{H}_2$  gas is extremely flammable, its leakage in the industry can be very hazardous with loss of property and life as it is used very commonly in cooling applications. So to detect any leakage and prevent loss of life and property, we can employ this sensor and prevent this condition.

## SPECIFICATIONS

- Operating Voltage is +5V
- Can be used to Measure or detect  $\text{H}_2$  gas concentration in the air
- Analog output voltage: 0V to 5V
- Digital Output Voltage: 0V or 5V
- Stable, Long life and Low Cost
- Fast Response time and is resistant to smoke, LPG, soot interference
- Heater consumption about 900mW

- The Sensitivity of Digital Output pin can be varied using the potentiometer

To use the Sensor Module, you have to power the device with 5V supply and the Power LED will start to glow. To power it, you can use external supply or connect +5V and GND pin of Arduino. You should give it some preheating time before start reading the output. While measuring the gas present, the Output LED will glow in a specific concentration of the gas. You can change it by using the potentiometer. Else you can also use the Analog Output to see how your program reacts to different concentrations of gases present.