GAS SENSOR

MQ-5 LPG / Natural Gas Sensor Module

The MQ-5 is a gas sensor module that detects LPG, natural gas and town gas. It has an analog output for the gas level and a digital output with an adjustable alarm threshold. Use it for cooking-gas leak alarms.



Key Features

- Sensitive to LPG, natural gas and town gas
- Analog (AO) and digital (DO) outputs
- Adjustable alarm threshold with the onboard pot
- Power and alarm LEDs
- Easy to use with Arduino analogRead()

Technical Specifications

Sensor	MQ-5
Target gases	LPG, natural gas and town gas
Detection range	200–10,000 ppm
Heater voltage	5 V ± 0.1 V
Heater current	approx. 150 mA
Outputs	AO (0–5 V, rises with gas level), DO (threshold)
Comparator	LM393

Pinout / Connections

VCC	5 V
GND	Ground
DO	Digital alarm output
AO	Analog gas-level output

Typical Applications

- Gas-leak alarm demos
- Air-quality monitoring
- IoT environmental sensing
- Science fair projects

Usage Notes & Safety

! The heater draws about 150 mA and gets hot. That's normal. Don't touch the mesh while it's running.

! Let it warm up for at least 1–2 minutes before reading. For best accuracy, run it for 24–48 hours the first time (burn-in).

! For three or more MQ sensors, use an external 5 V supply instead of the Arduino 5 V pin.

! For learning and demos only. Not a certified gas or safety detector.