

# Fermion: MEMS Gas Sensor - MiCS-2714 (Breakout)

SEN0441

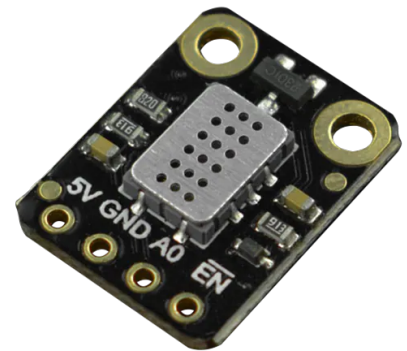
## Product Overview

01/25/2023

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## Description

DFRobot Fermion: MEMS Gas Sensor - MiCS-2714 (Breakout) is a hydrogen and nitrogen oxide gas concentration sensor. This sensor uses MEMS technology to support gas concentration detection of NO, NO<sub>2</sub> and H<sub>2</sub>. The MEMS gas sensor supports 5V power supply, analog voltage output, and has power supply enable/disable pins for low power consumption. The matching sample code integrates the concentration conversion formula of various gas to facilitate the testing and use of sensors. Typical applications include gas leak detection, gas safety equipment, and air environment detection.



## Features

- Integrates the concentration conversion formula
- Low power consumption

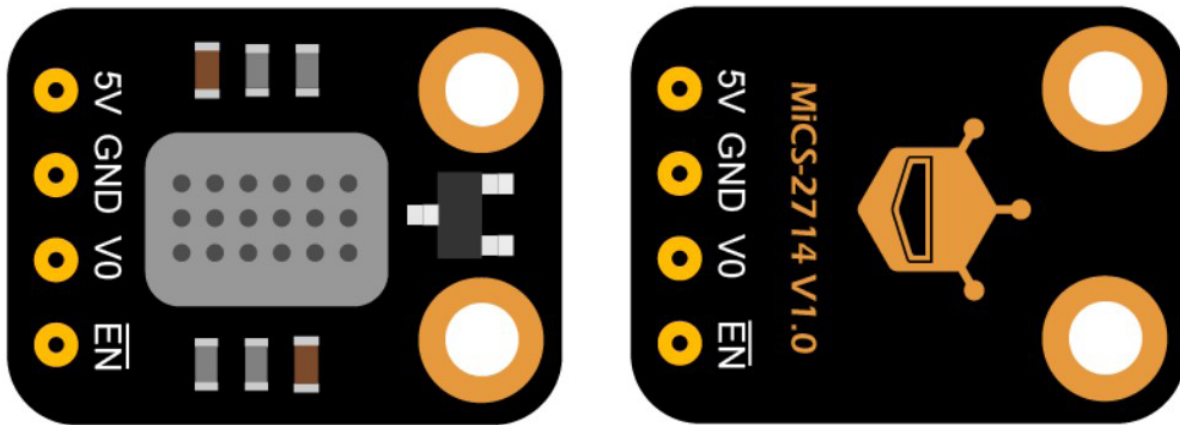
## Specifications

- Detection of physical quantities:
  - Gas concentration or gas leakage of NO, NO<sub>2</sub>, and H<sub>2</sub>
- 4.9V<sub>DC</sub> to 5.1V<sub>DC</sub> operating voltage range
- 0.45W power dissipation
- Analog output signal
- Measuring range:
  - 1ppm to 1000ppm (Hydrogen H<sub>2</sub>)
  - 0.05ppm to 10ppm (Nitrogen dioxide NO<sub>2</sub>)
- -30°C to 85°C working temperature range
- 5%RH to 95%RH working humidity (No condensation)
- -40°C to 85°C storage temperature range
- Lifespan:
  - >2 years (in the air)
- Circuit board size:
  - 12mm × 16mm
- Mounting hole size:
  - 2mm inner diameter
  - 4mm outer diameter

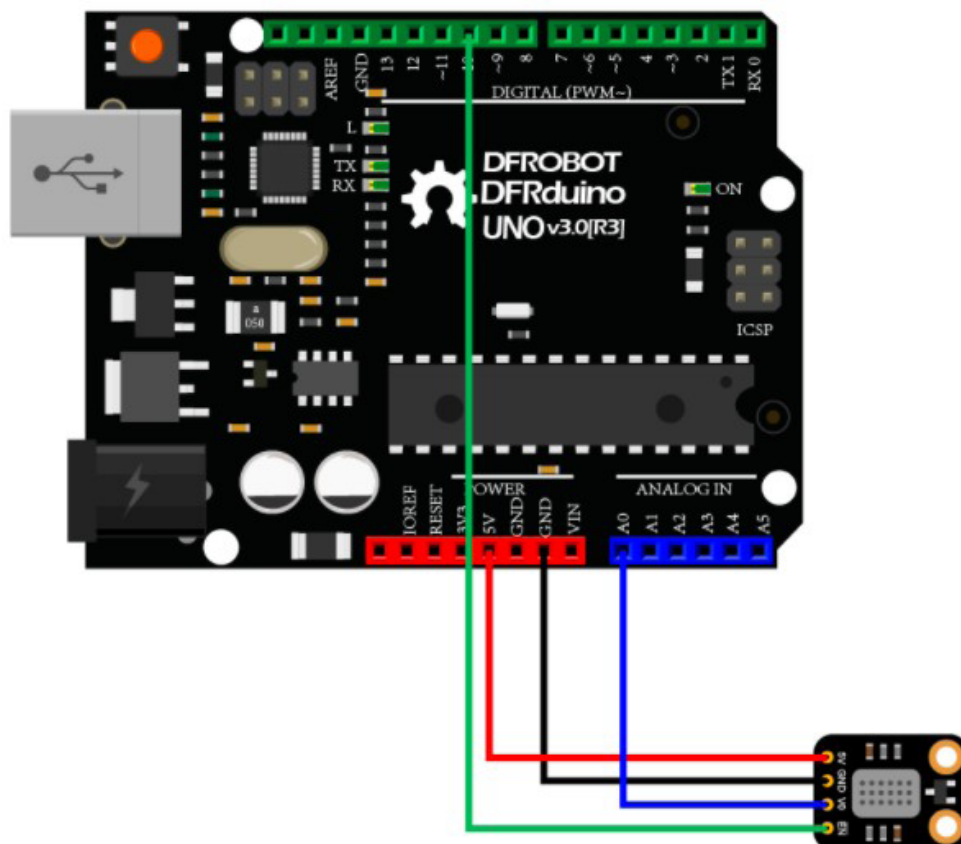
## Applications

- Gas leak detection
- Gas safety equipment
- Air environment detection

## Board Overview



## Connection Diagram



## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-fermion-mems-gas-sensor-mics-2714/>