

Fermion SHT40 Temperature and Humidity Sensor

SEN0428

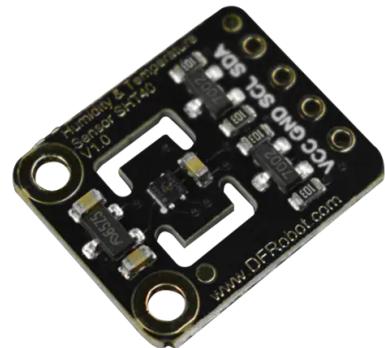
Product Overview

10-27-2022

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

DFRobot Fermion SHT40 Temperature and Humidity Sensor is a fourth-generation sensor from Sensirion that offers consistent high accuracy within measuring range. This sensor covers a 0%RH to 100%RH humidity measurement range and a -40°C to 125°C temperature detection range with a $\pm 1.8\%$ RH and $\pm 0.2^\circ\text{C}$ typical accuracy.



The SHT40 temperature and humidity sensor features low power consumption, small size, and fast response. This sensor is ideal for urban environment monitoring, intelligent buildings, industrial automation, smart home, and Internet of Things (IoT) applications.

Features

- High accuracy
- Low power consumption
- Small size
- Fast response

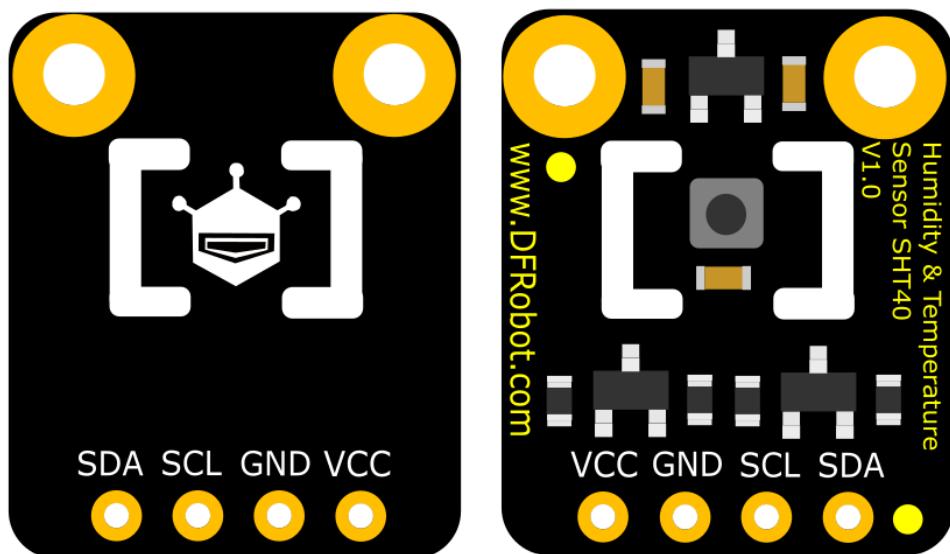
Specifications

- 3.3V to 5V operating voltage
- 0.45mA operating current
- I²C communication interface
- 8s (tau63%) response time
- 0%RH to 100%RH humidity measurement range
- $\pm 1.8\%$ humidity measurement accuracy
- -40°C to 125°C temperature measurement range
- $\pm 0.2^\circ\text{C}$ temperature measurement accuracy
- 14mm x 17mm dimensions
- M2 (2mm) mounting hole size
- 10mm mounting hole pitch

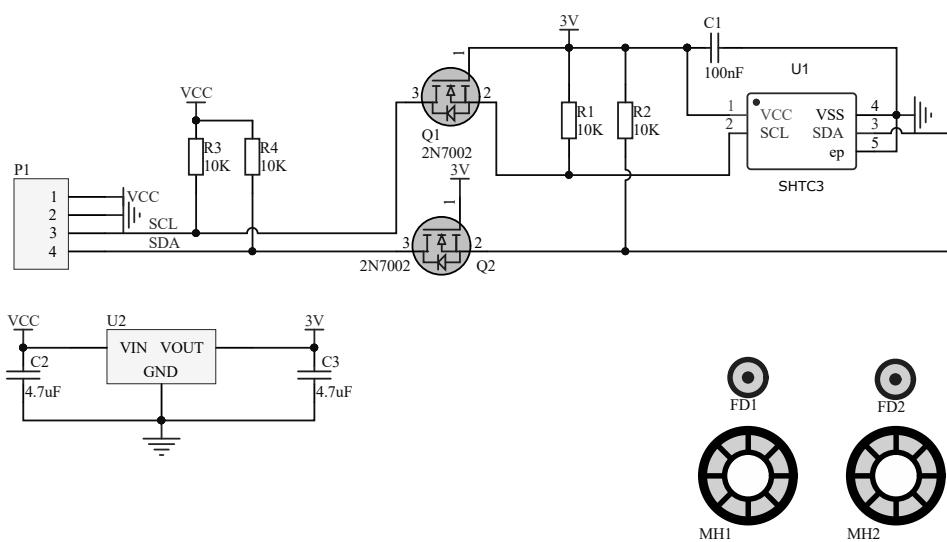
Applications

- Intelligent buildings and furniture
- Weather station
- Warehouses
- Animal and plant culture
- Animal incubator
- Germinating box for plant seed

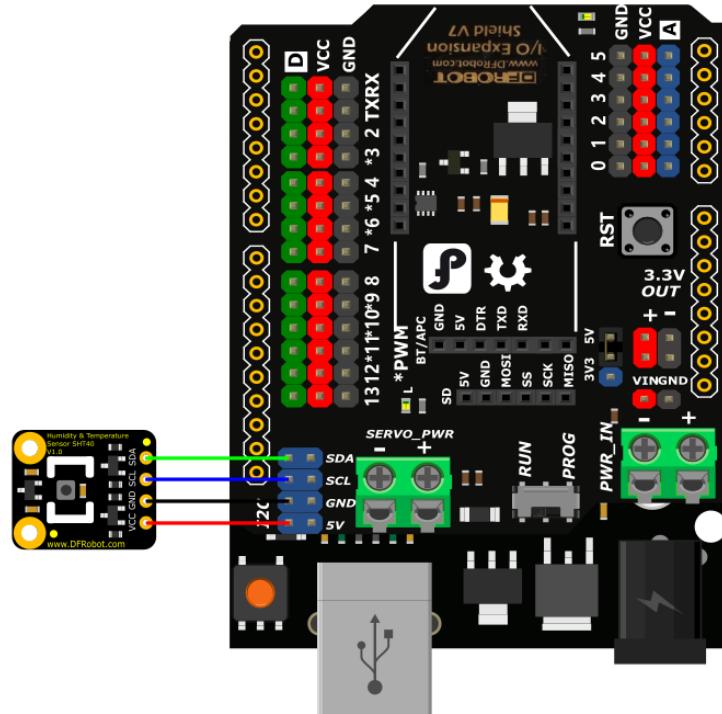
Board Overview



Schematic Diagram



Connection Diagram



Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-fermion-sht40-sensor/>