
AdafruitHTU21D Library Documentation

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This driver enables you to use the Adafruit HTU21D-F temperature and humidity breakout with CircuitPython.

CHAPTER 1

Dependencies

This driver depends on:

- [Adafruit CircuitPython](#)
- [Bus Device](#)

Please ensure all dependencies are available on the CircuitPython filesystem. This is easily achieved by downloading the [Adafruit library and driver bundle](#).

CHAPTER 2

Installing from PyPI

On supported GNU/Linux systems like the Raspberry Pi, you can install the driver locally [from PyPI](#). To install for current user:

```
pip3 install adafruit-circuitpython-htu21d
```

To install system-wide (this may be required in some cases):

```
sudo pip3 install adafruit-circuitpython-htu21d
```

To install in a virtual environment in your current project:

```
mkdir project-name && cd project-name
python3 -m venv .env
source .env/bin/activate
pip3 install adafruit-circuitpython-htu21d
```


CHAPTER 3

Usage Example

```
import time
import board
import busio
from adafruit_htu21d import HTU21D

# Create library object using our Bus I2C port
i2c = busio.I2C(board.SCL, board.SDA)
sensor = HTU21D(i2c)

while True:
    print("\nTemperature: %0.1f C" % sensor.temperature)
    print("Humidity: %0.1f %% " % sensor.relative_humidity)
    time.sleep(2)
```


CHAPTER 4

Contributing

Contributions are welcome! Please read our [Code of Conduct](#) before contributing to help this project stay welcoming.

CHAPTER 5

Documentation

For information on building library documentation, please check out [this guide](#).

6.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/htu21d_simpletest.py

```
1 import time
2 import board
3 import busio
4 from adafruit_htu21d import HTU21D
5
6 # Create library object using our Bus I2C port
7 i2c = busio.I2C(board.SCL, board.SDA)
8 sensor = HTU21D(i2c)
9
10
11 while True:
12     print("\nTemperature: %0.1f C" % sensor.temperature)
13     print("Humidity: %0.1f %%" % sensor.relative_humidity)
14     time.sleep(2)
```

6.2 adafruit_htu21d

This is a breakout for the Adafruit HTU21D-F humidity sensor breakout.

- Author(s): ktown

6.2.1 Implementation Notes

Hardware:

- Adafruit HTU21D-F Temperature & Humidity Sensor Breakout Board (Product ID: 1899)

Software and Dependencies:

- Adafruit CircuitPython firmware for the supported boards: <https://github.com/adafruit/circuitpython/releases>
- Adafruit's Bus Device library: https://github.com/adafruit/Adafruit_CircuitPython_BusDevice

class `adafruit_htu21d.HTU21D` (*i2c_bus*, *address=64*)

A driver for the HTU21D-F temperature and humidity sensor. :param `i2c_bus`: The `busio.I2C` object to use. This is the only required parameter. :param `int address`: (optional) The I2C address of the device.

measurement (*what*)

Starts a measurement. Starts a measurement of either `HUMIDITY` or `TEMPERATURE` depending on the `what` argument. Returns immediately, and the result of the measurement can be retrieved with the `temperature` and `relative_humidity` properties. This way it will take much less time. This can be useful if you want to start the measurement, but don't want the call to block until the measurement is ready – for instance, when you are doing other things at the same time.

relative_humidity

The measured relative humidity in percent.

temperature

The measured temperature in degrees Celcius.

CHAPTER 7

Indices and tables

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