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# **Adafruitam2320 Library Documentation**

*Release 1.0*

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This is a CircuitPython driver for the AM2320 temperature and humidity sensor.



# CHAPTER 1

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## Dependencies

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This driver depends on:

- [Adafruit CircuitPython](#)

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





## CHAPTER 2

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### Usage Example

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See `am2320_simpletest.py` in the examples folder.



## CHAPTER 3

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### Contributing

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



### 4.1 Zip release files

To build this library locally you'll need to install the `circuitpython-build-tools` package.

```
python3 -m venv .env
source .env/bin/activate
pip install circuitpython-build-tools
```

Once installed, make sure you are in the virtual environment:

```
source .env/bin/activate
```

Then run the build:

```
circuitpython-build-bundles --filename_prefix adafruit-circuitpython-am2320 --library_
↪location .
```

### 4.2 Sphinx documentation

Sphinx is used to build the documentation based on rST files and comments in the code. First, install dependencies (feel free to reuse the virtual environment from above):

```
python3 -m venv .env
source .env/bin/activate
pip install Sphinx sphinx-rtd-theme
```

Now, once you have the virtual environment activated:

```
cd docs
sphinx-build -E -W -b html . _build/html
```

This will output the documentation to `docs/_build/html`. Open the `index.html` in your browser to view them. It will also (due to `-W`) error out on any warning like Travis will. This is a good way to locally verify it will pass.

## 5.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/am2320\_simpletest.py

```
1 import time
2 import board
3 import busio
4 import adafruit_am2320
5
6 # can also use board.SDA and board.SCL for neater looking code!
7 i2c = busio.I2C(board.D2, board.D0)
8 am = adafruit_am2320.AM2320(i2c)
9
10
11 while True:
12     try:
13         print("Temperature: ", am.temperature)
14         print("Humidity: ", am.relative_humidity)
15     except OSError:
16         # These sensors are a bit flakey, its ok if the readings fail
17         pass
18     except RuntimeError:
19         pass
20     time.sleep(2)
```

## 5.2 adafruit\_am2320

This is a CircuitPython driver for the AM2320 temperature and humidity sensor.

- Author(s): Limor Fried

## 5.2.1 Implementation Notes

### Hardware:

- Adafruit AM2320 Temperature & Humidity Sensor (Product ID: 3721)

### Software and Dependencies:

- **Adafruit CircuitPython firmware for the ESP8622 and M0-based boards:** <https://github.com/adafruit/circuitpython/releases>
- Adafruit's Bus Device library: [https://github.com/adafruit/Adafruit\\_CircuitPython\\_BusDevice](https://github.com/adafruit/Adafruit_CircuitPython_BusDevice)

**class** `adafruit_am2320.AM2320` (*i2c\_bus*, *address=92*)  
A driver for the AM2320 temperature and humidity sensor.

#### Parameters

- **`i2c_bus`** – The `busio.I2C` object to use. This is the only required parameter.
- **`address`** (*int*) – (optional) The I2C address of the device.

#### **`relative_humidity`**

The measured relative humidity in percent.

#### **`temperature`**

The measured temperature in celsius.



## CHAPTER 6

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### Indices and tables

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