Adafruitam2320 Library Documentation

Release 1.0

Limor Fried

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Contents

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

CHAPTER 1

Dependencies

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

Usage Example

See `am2320_simpletest.py` in the examples folder.

CHAPTER 3

Contributing

Contributions are welcome! Please read our Code of Conduct before contributing to help this project stay welcoming.

CHAPTER 4

Building locally

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.

CHAPTER 5

Table of Contents

5.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/am2320_simpletest.py

```
import time
import board
import busio
import adafruit_am2320

# create the I2C shared bus
i2c = busio.I2C(board.SCL, board.SDA)
am = adafruit_am2320.AM2320(i2c)

while True:
    print("Temperature: ", am.temperature)
    print("Humidity: ", am.relative_humidity)
    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

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

Indices and tables

- genindex
- modindex
- search

Python Module Index

a

Index