Adafruitam2320 Library Documentation

Release 1.0

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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

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-am2320
```

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

```
sudo pip3 install adafruit-circuitpython-am2320
```

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-am2320
```

CHAPTER 3

Usage Example

See `am2320_simpletest.py` in the examples folder.

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.

CHAPTER 6

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6.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/am2320_simpletest.py

```
# SPDX-FileCopyrightText: 2021 ladyada for Adafruit Industries
# SPDX-License-Identifier: MIT

import time
import board
import adafruit_am2320

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

while True:
    print("Temperature: ", am.temperature)
    print("Humidity: ", am.relative_humidity)
    time.sleep(2)
```

6.2 adafruit_am2320

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

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6.2.1 Implementation Notes

Hardware:

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

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_am2320.**AM2320**(*i2c_bus*, *address=92*)

A driver for the AM2320 temperature and humidity sensor.

Parameters

- **i2c_bus** (*I2C*) – The I2C bus the AM2320 is connected to. This is the only required parameter.
- **address** (*int*) – (optional) The I2C address of the device. Defaults to `0x5C`

Quickstart: Importing and using the AM2320

Here is an example of using the *AM2320* class. First you will need to import the libraries to use the sensor

```
import board
import adafruit_am2320
```

Once this is done you can define your `board.I2C` object and define your sensor object

```
i2c = board.I2C()   # uses board.SCL and board.SDA
am = adafruit_am2320.AM2320(i2c)
```

Now you have access to the temperature using *temperature* attribute and the relative humidity using the *relative_humidity* attribute

```
temperature = am.temperature
relative_humidity = am.relative_humidity
```

relative_humidity

The measured relative humidity in percent.

temperature

The measured temperature in Celsius.

CHAPTER 7

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