Adafruitam2320 Library Documentation

Release 1.0

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Contents

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

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.

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
```

Usage Example

See `am2320_simpletest.py` in the examples folder.

Contributing

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

Documentation

For information on building library documentation, please check out this guide.

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6.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/am2320_simpletest.py

```python
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)
```

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 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.

exception adafruit_am2320.**AM2320DeviceNotFound**
    Indicates that a device couldn't be found.

exception adafruit_am2320.**AM2320Exception**
    Base class for exceptions.

exception adafruit_am2320.**AM2320ReadError**
    indicates that valid data could not be read from the sensor.

    This may be due to a regular I2C read failure, or due to a checksum mismatch.

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