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# **AdafruitBMP3XX Library Documentation**

***Release 1.0***

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CircuitPython driver from BMP3XX Temperature and Barometric Pressure sensor.



# CHAPTER 1

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## Dependencies

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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](#).

### 1.1 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-bmp3xx
```

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

```
sudo pip3 install adafruit-circuitpython-bmp3xx
```

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-bmp3xx
```





## CHAPTER 2

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### Usage Example

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See usage examples 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.



## CHAPTER 4

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### Documentation

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



## 5.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/bmp3xx\_simpletest.py

```
1 import time
2 import board
3 import busio
4 import adafruit_bmp3xx
5
6 # I2C setup
7 i2c = busio.I2C(board.SCL, board.SDA)
8 bmp = adafruit_bmp3xx.BMP3XX_I2C(i2c)
9
10 # SPI setup
11 # from digitalio import DigitalInOut, Direction
12 # spi = busio.SPI(board.SCK, board.MOSI, board.MISO)
13 # cs = DigitalInOut(board.D5)
14 # bmp = adafruit_bmp3xx.BMP3XX_SPI(spi, cs)
15
16 bmp.pressure_oversampling = 8
17 bmp.temperature_oversampling = 2
18
19 while True:
20     print(
21         "Pressure: {:6.4f} Temperature: {:5.2f}".format(bmp.pressure, bmp.
22         ↪temperature)
23     )
24     time.sleep(1)
```

## 5.2 adafruit\_bmp3xx

CircuitPython driver from BMP3XX Temperature and Barometric Pressure sensor.

- Author(s): Carter Nelson

### 5.2.1 Implementation Notes

#### Hardware:

- [Adafruit BMP388](#)

#### 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](https://github.com/adafruit/Adafruit_CircuitPython_BusDevice)

**class** adafruit\_bmp3xx.**BMP3XX**

Base class for BMP3XX sensor.

**altitude**

The altitude in meters based on the currently set sea level pressure.

**filter\_coefficient**

The IIR filter coefficient.

**pressure**

The pressure in hPa.

**pressure\_oversampling**

The pressure oversampling setting.

**reset** ()

Perform a power on reset. All user configuration settings are overwritten with their default state.

**sea\_level\_pressure = None**

Sea level pressure in hPa.

**temperature**

The temperature in deg C.

**temperature\_oversampling**

The temperature oversampling setting.

**class** adafruit\_bmp3xx.**BMP3XX\_I2C** (*i2c*, *address=119*)

Driver for I2C connected BMP3XX. Default address is 0x77 but another address can be passed in as an argument

**class** adafruit\_bmp3xx.**BMP3XX\_SPI** (*spi*, *cs*)

Driver for SPI connected BMP3XX.



## CHAPTER 6

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### Indices and tables

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