
Adafruitsgp30 Library Documentation

Release 1.0

Ladyada

Mar 06, 2018

Contents

1	Dependencies	3
2	Usage Notes	5
2.1	Reading from the Sensor	5
3	API Reference	7
3.1	adafruit_sgp30	7
4	Contributing	9
5	Building locally	11
	Python Module Index	13

A CircuitPython driver for the Sensirion SGP30 gas sensor with eCO2 and TVOC output. This sensor uses I2C!

CHAPTER 1

Dependencies

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](#).

CHAPTER 2

Usage Notes

See [the guide](#) for wiring and installation instructions.

First, import the library:

```
import busio
import adafruit_sgp30
```

Next, initialize the I2C bus object:

```
from board import *
i2c_bus = busio.I2C(board.SCL, board.SDA, frequency=100000)
```

Since we have the I2C bus object, we can now use it to instantiate the SGP30 object:

```
sgp30 = adafruit_sgp30.Adafruit_SGP30(i2c_bus)
```

2.1 Reading from the Sensor

To read from the sensor:

```
co2eq, tvoc = sgp30.iaq_measure()
print("CO2eq = %d ppm \t TVOC = %d ppb" % (co2eq, tvoc))
```


3.1 adafruit_sgp30

I2C driver for SGP30 Sensirion VoC sensor

- Author(s): ladyada

```
class adafruit_sgp30.Adafruit_SGP30 (i2c, address=<sphinx.ext.autodoc._MockObject object>)
```

A driver for the SGP30 gas sensor.

```
get_iaq_baseline ()
```

Retreive the IAQ algorithm baseline for CO2eq and TVOC

```
iaq_init ()
```

Initialize the IAQ algorithm

```
iaq_measure ()
```

Measure the CO2eq and TVOC

```
set_iaq_baseline (co2eq, tvoc)
```

Set the previously recorded IAQ algorithm baseline for CO2eq and TVOC

CHAPTER 4

Contributing

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

CHAPTER 5

Building locally

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-sgp30 --library_
↪location .
```


a

`adafruit_sgp30`, [7](#)

A

Adafruit_SGP30 (class in adafruit_sgp30), [7](#)
adafruit_sgp30 (module), [7](#)

G

get_iaq_baseline() (adafruit_sgp30.Adafruit_SGP30
method), [7](#)

I

iaq_init() (adafruit_sgp30.Adafruit_SGP30 method), [7](#)
iaq_measure() (adafruit_sgp30.Adafruit_SGP30 method),
[7](#)

S

set_iaq_baseline() (adafruit_sgp30.Adafruit_SGP30
method), [7](#)