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# AdafruitVEML6075 Library Documentation

*Release 1.0*

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CircuitPython library to support VEML6075 UVA & UVB 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](#).





## CHAPTER 2

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### Installing from PyPI

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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-veml6075
```

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

```
sudo pip3 install adafruit-circuitpython-veml6075
```

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-veml6075
```



## CHAPTER 3

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### Usage Example

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```
import time
import board
import busio
import adafruit_veml6075

i2c = busio.I2C(board.SCL, board.SDA)

veml = adafruit_veml6075.VEML6075(i2c, integration_time=100)

while True:
    print(veml.uv_index)
    time.sleep(1)
```



## CHAPTER 4

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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 5

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### Documentation

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





### 6.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/veml6075\_simpletest.py

```
1  # SPDX-FileCopyrightText: 2021 ladyada for Adafruit Industries
2  # SPDX-License-Identifier: MIT
3
4  import time
5  import board
6  import busio
7  import adafruit_veml6075
8
9  i2c = busio.I2C(board.SCL, board.SDA)
10
11  veml = adafruit_veml6075.VEML6075(i2c, integration_time=100)
12
13  print("Integration time: %d ms" % veml.integration_time)
14
15  while True:
16      print(veml.uv_index)
17      time.sleep(1)
```

### 6.2 adafruit\_veml6075

CircuitPython library to support VEML6075 UVA & UVB sensor.

- Author(s): ladyada

## 6.2.1 Implementation Notes

### Hardware:

### 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_veml6075.VEML6075(i2c_bus, *, integration_time=50, high_dynamic=True,
                                   uva_a_coef=2.22, uva_b_coef=1.33, uvb_c_coef=2.95,
                                   uvb_d_coef=1.74, uva_response=0.001461,
                                   uvb_response=0.002591)
```

Driver base for the VEML6075 UV Light Sensor :param i2c\_bus: The `busio.I2C` object to use. This is the only required parameter. :param int integration\_time: The integration time you'd like to set initially. Available options - each in milliseconds: 50, 100, 200, 400, 800. The higher the `'_x_'` value, the more accurate the reading is (at the cost of less samples per reading). Defaults to 100ms if parameter not passed. To change setting after initialization, use `[veml6075].integration_time = new_it_value`. :param bool high\_dynamic: whether to put sensor in 'high dynamic setting' mode :param float uva\_a\_coef: the UVA visible coefficient :param float uva\_b\_coef: the UVA IR coefficient :param float uvb\_c\_coef: the UVB visible coefficient :param float uvb\_d\_coef: the UVB IR coefficient :param float uva\_response: the UVA responsivity :param float uvb\_response: the UVA responsivity

#### **integration\_time**

The amount of time the VEML is sampling data for, in millis. Valid times are 50, 100, 200, 400 or 800ms

#### **uv\_index**

The calculated UV Index

#### **uva**

The calibrated UVA reading, in 'counts' over the sample period

#### **uvb**

The calibrated UVB reading, in 'counts' over the sample period

## CHAPTER 7

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### Indices and tables

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- `genindex`
- `modindex`
- `search`



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### A

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### I

`integration_time` (*adafruit\_veml6075.VEML6075 attribute*), [14](#)

### U

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`uva` (*adafruit\_veml6075.VEML6075 attribute*), [14](#)

`uvb` (*adafruit\_veml6075.VEML6075 attribute*), [14](#)

### V

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