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# **Adafruitstmpe610 Library Documentation**

***Release 1.0***

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## Contents

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<b>1</b>	<b>Dependencies</b>	<b>3</b>
<b>2</b>	<b>Usage Example</b>	<b>5</b>
<b>3</b>	<b>Building locally</b>	<b>7</b>
3.1	Zip release files . . . . .	7
3.2	Sphinx documentation . . . . .	7
<b>4</b>	<b>Table of Contents</b>	<b>9</b>
4.1	Simple test . . . . .	9
4.2	adafruit_stmpe610 . . . . .	9
<b>5</b>	<b>Indices and tables</b>	<b>11</b>
	<b>Python Module Index</b>	<b>13</b>



Adafruit CircuitPython module for the STMPE610 Resistive Touch Screen Controller



# CHAPTER 1

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## Dependencies

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This driver depends on:

- [Adafruit CircuitPython](#)
- [Bus Device](#)
- [Register](#)

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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### Usage Example

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see examples in github repository: [https://github.com/adafruit/Adafruit\\_CircuitPython\\_STMPE610/exmaples](https://github.com/adafruit/Adafruit_CircuitPython_STMPE610/exmaples) Contributing =====

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



### 3.1 Zip release files

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-stmpe610 --
↳library_location .
```

### 3.2 Sphinx documentation

Sphinx is used to build the documentation based on rST files and comments in the code. First, install dependencies (feel free to reuse the virtual environment from above):

```
python3 -m venv .env
source .env/bin/activate
pip install Sphinx sphinx-rtd-theme
```

Now, once you have the virtual environment activated:

```
cd docs
sphinx-build -E -W -b html . _build/html
```

This will output the documentation to `docs/_build/html`. Open the `index.html` in your browser to view them. It will also (due to `-W`) error out on any warning like Travis will. This is a good way to locally verify it will pass.

### 4.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/stmpe610\_simpletest.py

```
1 import busio
2 import board
3 import digitalio
4 from adafruit_stmpe610 import Adafruit_STMPE610_SPI
5
6 spi = busio.SPI(board.SCK, board.MOSI, board.MISO)
7 cs = digitalio.DigitalInOut(board.D6)
8 st = Adafruit_STMPE610_SPI(spi, cs)
9
10 print("Go Ahead - Touch the Screen - Make My Day!")
11 while True:
12     if not st.buffer_empty:
13         print(st.read_data())
```

### 4.2 adafruit\_stmpe610

This is a CircuitPython Driver for the STMPE610 Resistive Touch sensor

- Author(s): Jerry Needell

**class** adafruit\_stmpe610.**Adafruit\_STMPE610**

A driver for the STMPE610 Resistive Touch sensor.

**buffer\_empty**

Buffer empty status

**buffer\_size**

The amount of touch data in the buffer

**get\_point**

Read one touch from the buffer

**get\_version**

Read the version number from the sensor

**read\_data()**

Request next stored reading - return tuple containing (x,y,pressure)

**touched**

Report if any touches have been detected

**touches**

Returns a list of touchpoint dicts, with 'x' and 'y' containing the touch coordinates, and 'pressure'

**class** adafruit\_stmpe610.**Adafruit\_STMPE610\_I2C**(i2c, address=65)

I2C driver for the STMPE610 Resistive Touch sensor.

**class** adafruit\_stmpe610.**Adafruit\_STMPE610\_SPI**(spi, cs, baudrate=1000000)

SPI driver for the STMPE610 Resistive Touch sensor.

## CHAPTER 5

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### Indices and tables

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





**a**

`adafruit_stmpe610`, 9



### A

Adafruit\_STMPE610 (class in adafruit\_stmpe610), [9](#)  
adafruit\_stmpe610 (module), [9](#)  
Adafruit\_STMPE610\_I2C (class in adafruit\_stmpe610),  
[10](#)  
Adafruit\_STMPE610\_SPI (class in adafruit\_stmpe610),  
[10](#)

### B

buffer\_empty (adafruit\_stmpe610.Adafruit\_STMPE610  
attribute), [9](#)  
buffer\_size (adafruit\_stmpe610.Adafruit\_STMPE610 at-  
tribute), [9](#)

### G

get\_point (adafruit\_stmpe610.Adafruit\_STMPE610 at-  
tribute), [10](#)  
get\_version (adafruit\_stmpe610.Adafruit\_STMPE610 at-  
tribute), [10](#)

### R

read\_data() (adafruit\_stmpe610.Adafruit\_STMPE610  
method), [10](#)

### T

touched (adafruit\_stmpe610.Adafruit\_STMPE610  
attribute), [10](#)  
touches (adafruit\_stmpe610.Adafruit\_STMPE610 at-  
tribute), [10](#)