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# **AdafruitSSD1675 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>Installing from PyPI</b>	<b>5</b>
<b>3</b>	<b>Usage Example</b>	<b>7</b>
<b>4</b>	<b>Contributing</b>	<b>9</b>
<b>5</b>	<b>Documentation</b>	<b>11</b>
<b>6</b>	<b>Table of Contents</b>	<b>13</b>
6.1	Simple test . . . . .	13
6.2	2.13" Monochrome . . . . .	14
6.3	adafruit_ssd1675 . . . . .	15
6.3.1	Implementation Notes . . . . .	15
<b>7</b>	<b>Indices and tables</b>	<b>17</b>
	<b>Python Module Index</b>	<b>19</b>
	<b>Index</b>	<b>21</b>



CircuitPython `displayio` drivers for SSD1675-based ePaper displays



# CHAPTER 1

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## Dependencies

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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](#).





## CHAPTER 2

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### Installing from PyPI

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**Note:** This library is not available on PyPI yet. Install documentation is included as a standard element. Stay tuned for PyPI availability!

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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-ssd1675
```

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

```
sudo pip3 install adafruit-circuitpython-ssd1675
```

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-ssd1675
```



## CHAPTER 3

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### Usage Example

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```
"""Simple test script for 2.13" 250x122 black and white featherwing.
Supported products:
 * Adafruit 2.13" Black and White FeatherWing
 * https://www.adafruit.com/product/4195
"""

import time
import board
import busio
import displayio
import adafruit_ssd1675

displayio.release_displays()

epd_cs = board.D9
epd_dc = board.D10

display_bus = displayio.FourWire(board.SPI(), command=epd_dc, chip_select=epd_cs,
↳baudrate=1000000)
time.sleep(1)

display = adafruit_ssd1675.SSD1675(display_bus, width=250, height=122, rotation=90)

g = displayio.Group()

f = open("/display-ruler.bmp", "rb")

pic = displayio.OnDiskBitmap(f)
t = displayio.TileGrid(pic, pixel_shader=displayio.ColorConverter())
g.append(t)

display.show(g)
```

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```
display.refresh()  
print("refreshed")  
time.sleep(120)
```

## 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 monochrome featherwing works with this simple test.

Listing 1: examples/ssd1675\_simpletest.py

```
1  # SPDX-FileCopyrightText: 2021 ladyada for Adafruit Industries
2  # SPDX-License-Identifier: MIT
3
4  """Simple test script for 2.13" 250x122 black and white featherwing.
5
6  Supported products:
7  * Adafruit 2.13" Black and White FeatherWing
8  * https://www.adafruit.com/product/4195
9  """
10
11 import time
12 import board
13 import displayio
14 import adafruit_ssd1675
15
16 displayio.release_displays()
17
18 epd_cs = board.D9
19 epd_dc = board.D10
20
21 display_bus = displayio.FourWire(
22     board.SPI(), command=epd_dc, chip_select=epd_cs, baudrate=1000000
23 )
24 time.sleep(1)
25
26 display = adafruit_ssd1675.SSD1675(display_bus, width=250, height=122, rotation=90)
27
```

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```
28 g = displayio.Group()
29
30 f = open("/display-ruler.bmp", "rb")
31
32 pic = displayio.OnDiskBitmap(f)
33 t = displayio.TileGrid(pic, pixel_shader=displayio.ColorConverter())
34 g.append(t)
35
36 display.show(g)
37
38 display.refresh()
39
40 print("refreshed")
41
42 time.sleep(120)
```

## 6.2 2.13" Monochrome

Ensure your 2.13" Monochrome breakout works with this simple test.

Listing 2: examples/ssd1675\_2.13\_monochrome.py

```
1 # SPDX-FileCopyrightText: 2021 ladyada for Adafruit Industries
2 # SPDX-License-Identifier: MIT
3
4 """Simple test script for 2.13" 250x122 monochrome display.
5
6 Supported products:
7 * Adafruit 2.13" Monochrome ePaper Display Breakout
8 * https://www.adafruit.com/product/4197
9 """
10
11 import time
12 import board
13 import displayio
14 import adafruit_ssd1675
15
16 displayio.release_displays()
17
18 # This pinout works on a Feather M4 and may need to be altered for other boards.
19 spi = board.SPI() # Uses SCK and MOSI
20 epd_cs = board.D9
21 epd_dc = board.D10
22 epd_reset = board.D5
23 epd_busy = board.D6
24
25 display_bus = displayio.FourWire(
26     spi, command=epd_dc, chip_select=epd_cs, reset=epd_reset, baudrate=1000000
27 )
28 time.sleep(1)
29
30 display = adafruit_ssd1675.SSD1675(
31     display_bus, width=250, height=122, rotation=90, busy_pin=epd_busy
32 )
```

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```
33
34 g = displayio.Group()
35
36 f = open("/display-ruler.bmp", "rb")
37
38 pic = displayio.OnDiskBitmap(f)
39 t = displayio.TileGrid(pic, pixel_shader=displayio.ColorConverter())
40 g.append(t)
41
42 display.show(g)
43
44 display.refresh()
45
46 print("refreshed")
47
48 time.sleep(120)
```

## 6.3 adafruit\_ssd1675

CircuitPython `displayio` drivers for SSD1675-based ePaper displays

- Author(s): Scott Shawcroft

### 6.3.1 Implementation Notes

#### Hardware:

- Adafruit 2.13" Monochrome ePaper Display Breakout
- Adafruit 2.13" Black and White FeatherWing

#### Software and Dependencies:

- Adafruit CircuitPython firmware (version 5+) for the supported boards: <https://github.com/adafruit/circuitpython/releases>

**class** `adafruit_ssd1675.SSD1675` (*bus*, *\*\*kwargs*)  
SSD1675 driver



# CHAPTER 7

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## Indices and tables

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



**a**

`adafruit_ssd1675`, 15





## A

adafruit\_ssd1675 (*module*), 15

## S

SSD1675 (*class in adafruit\_ssd1675*), 15