
AdafruitGizmo Library Documentation

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CircuitPython classes for Adafruit Gizmos

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

Contributing

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

CHAPTER 3

Documentation

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

4.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/gizmo_simpletest.py

```
1 import time
2 from random import randrange
3 import displayio
4 from adafruit_gizmo import tft_gizmo
5
6 # Create the TFT Gizmo display
7 display = tft_gizmo.TFT_Gizmo()
8
9 # You can now use the display to do whatever you want
10 # Here we show how to draw random pixels
11
12 # Create a bitmap with two colors
13 bitmap = displayio.Bitmap(display.width, display.height, 2)
14
15 # Create a two color palette
16 palette = displayio.Palette(2)
17 palette[0] = 0x000000
18 palette[1] = 0xFFFFFF
19
20 # Create a TileGrid using the Bitmap and Palette
21 tile_grid = displayio.TileGrid(bitmap, pixel_shader=palette)
22
23 # Create a Group
24 group = displayio.Group()
25
26 # Add the TileGrid to the Group
27 group.append(tile_grid)
```

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```

28
29 # Add the Group to the Display
30 display.show(group)
31
32 # Draw pixels
33 while True:
34     for _ in range(200):
35         x = randrange(0, display.width)
36         y = randrange(0, display.height)
37         bitmap[x, y] = 1
38         time.sleep(0.1)
39     for i in range(display.width * display.height):
40         bitmap[i] = 0

```

4.2 Other examples

Listing 2: examples/gizmo_tft_demo.py

```

1 """
2 This test will initialize the display using displayio and draw a solid green
3 background, a smaller purple rectangle, and some yellow text.
4 """
5 import displayio
6 import terminalio
7 from adafruit_display_text import label
8 from adafruit_gizmo import tft_gizmo
9
10 # Create the TFT Gizmo display
11 display = tft_gizmo.TFT_Gizmo()
12
13 # Make the display context
14 splash = displayio.Group(max_size=10)
15 display.show(splash)
16
17 color_bitmap = displayio.Bitmap(240, 240, 1)
18 color_palette = displayio.Palette(1)
19 color_palette[0] = 0x00FF00 # Bright Green
20
21 bg_sprite = displayio.TileGrid(color_bitmap, pixel_shader=color_palette, x=0, y=0)
22 splash.append(bg_sprite)
23
24 # Draw a smaller inner rectangle
25 inner_bitmap = displayio.Bitmap(200, 200, 1)
26 inner_palette = displayio.Palette(1)
27 inner_palette[0] = 0xAA0088 # Purple
28 inner_sprite = displayio.TileGrid(inner_bitmap, pixel_shader=inner_palette, x=20,
29 ↪y=20)
30 splash.append(inner_sprite)
31
32 # Draw a label
33 text_group = displayio.Group(max_size=10, scale=2, x=50, y=120)
34 text = "Hello World!"
35 text_area = label.Label(terminalio.FONT, text=text, color=0xFFFF00)
36 text_group.append(text_area) # Subgroup for text scaling

```

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```
36 splash.append(text_group)
37
38 while True:
39     pass
```

4.3 adafruit_gizmo.tft_gizmo

Helper for the TFT Gizmo.

- Author(s): Carter Nelson, Melissa LeBlanc-Williams

```
class adafruit_gizmo.tft_gizmo.TFT_Gizmo(*, spi=None, cs=<sphinx.ext.autodoc.importer._MockObject
object>, dc=<sphinx.ext.autodoc.importer._MockObject
object>, backlight=<sphinx.ext.autodoc.importer._MockObject
object>, rotation=180)
```

Class representing a TFT Gizmo.

CHAPTER 5

Indices and tables

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

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