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**LED** *Animation Library Documentation*

***Release 1.0***

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Perform a variety of LED animation tasks



# 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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### Usage Example

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```
import adafruit_dotstar as dotstar
import board
from led_animation import color
# setup the pixel
dot = dotstar.DotStar(board.APA102_SCK, board.APA102_MOSI, 1, brightness=.2)
# set the color by name
dot[0] = color.GOLD
# show the pixel
dot.show()
```



## CHAPTER 3

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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.



### 4.1 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 circuitpython-led_animation --library_
↪location .
```

### 4.2 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.

## 5.1 Simple test

Ensure your device works with this simple test.

Listing 1: examples/led\_animation\_simpletest.py

```
1  """Blink LED animation."""
2  import board
3  import neopixel
4  from adafruit_led_animation.animation import Blink
5  import adafruit_led_animation.color as color
6
7  # Works on Circuit Playground Express and Bluefruit.
8  # For other boards, change board.NEOPIXEL to match the pin to which the NeoPixels are
9  # attached.
10 pixel_pin = board.NEOPIXEL
11 # Change to match the number of pixels you have attached to your board.
12 num_pixels = 10
13
14 pixels = neopixel.NeoPixel(pixel_pin, num_pixels)
15 blink = Blink(pixels, 0.5, color.PURPLE)
16
17 while True:
18     blink.animate()
```

## 5.2 API Reference

Used by `autodoc_mock_imports`.





## CHAPTER 6

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### Indices and tables

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