
Adafruit HT16K33 Library Documentation

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Contents

1	Dependencies	3
2	Installing from PyPI	5
3	Usage Example	7
4	Contributing	9
5	Documentation	11
6	Table of Contents	13
6.1	Simple test	13
6.2	adafruit_ht16k33.ht16k33	23
6.3	Matrix Displays	24
6.4	Segment Displays	25
7	Indices and tables	27
	Python Module Index	29
	Index	31

This is a library for using the I²C-based LED matrices with the HT16K33 chip. It supports both 16x8 and 8x8 matrices, as well as 7- and 14-segment displays.

- **Notes**

1. This library is intended for Adafruit CircuitPython's API. For a library compatible with MicroPython machine API see this [library](#).
2. This library does not work with the Trellis 4x4 LED+Keypad board. For that product use: [CircuitPython Trellis Library](#)

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

Installing from PyPI

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-ht16k33
```

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

```
sudo pip3 install adafruit-circuitpython-ht16k33
```

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-ht16k33
```


CHAPTER 3

Usage Example

```
# Import all board pins and bus interface.
import board
import busio

# Import the HT16K33 LED matrix module.
from adafruit_ht16k33 import matrix

# Create the I2C interface.
i2c = busio.I2C(board.SCL, board.SDA)

# Create the matrix class.
# This creates a 16x8 matrix:
matrix = matrix.Matrix16x8(i2c)
# Or this creates a 8x8 matrix:
#matrix = matrix.Matrix8x8(i2c)
# Or this creates a 8x8 bicolor matrix:
#matrix = matrix.Matrix8x8x2
# Finally you can optionally specify a custom I2C address of the HT16k33 like:
#matrix = matrix.Matrix16x8(i2c, address=0x70)

# Clear the matrix.
matrix.fill(0)

# Set a pixel in the origin 0,0 position.
matrix[0, 0] = 1
# Set a pixel in the middle 8, 4 position.
matrix[8, 4] = 1
# Set a pixel in the opposite 15, 7 position.
matrix[15, 7] = 1
matrix.show()

# Change the brightness
matrix.brightness = 8
```

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```
# Set the blink rate
matrix.blink_rate = 2
```

CHAPTER 4

Contributing

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

CHAPTER 5

Documentation

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/ht16k33_matrix_simpletest.py

```
1  # Basic example of clearing and drawing a pixel on a LED matrix display.
2  # This example and library is meant to work with Adafruit CircuitPython API.
3  # Author: Tony DiCola
4  # License: Public Domain
5
6  # Import all board pins.
7  import time
8  import board
9  import busio
10
11 # Import the HT16K33 LED matrix module.
12 from adafruit_ht16k33 import matrix
13
14
15 # Create the I2C interface.
16 i2c = busio.I2C(board.SCL, board.SDA)
17
18 # Create the matrix class.
19 # This creates a 16x8 matrix:
20 matrix = matrix.Matrix16x8(i2c)
21 # Or this creates a 16x8 matrix backpack:
22 # matrix = matrix.MatrixBackpack16x8(i2c)
23 # Or this creates a 8x8 matrix:
24 # matrix = matrix.Matrix8x8(i2c)
25 # Or this creates a 8x8 bicolor matrix:
26 # matrix = matrix.Matrix8x8x2(i2c)
27 # Finally you can optionally specify a custom I2C address of the HT16k33 like:
```

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```

28 # matrix = matrix.Matrix16x8(i2c, address=0x70)
29
30 # Clear the matrix.
31 matrix.fill(0)
32
33 # Set a pixel in the origin 0, 0 position.
34 matrix[0, 0] = 1
35 # Set a pixel in the middle 8, 4 position.
36 matrix[8, 4] = 1
37 # Set a pixel in the opposite 15, 7 position.
38 matrix[15, 7] = 1
39
40 time.sleep(2)
41
42 # Draw a Smiley Face
43 matrix.fill(0)
44
45 for row in range(2, 6):
46     matrix[row, 0] = 1
47     matrix[row, 7] = 1
48
49 for column in range(2, 6):
50     matrix[0, column] = 1
51     matrix[7, column] = 1
52
53 matrix[1, 1] = 1
54 matrix[1, 6] = 1
55 matrix[6, 1] = 1
56 matrix[6, 6] = 1
57 matrix[2, 5] = 1
58 matrix[5, 5] = 1
59 matrix[2, 3] = 1
60 matrix[5, 3] = 1
61 matrix[3, 2] = 1
62 matrix[4, 2] = 1
63
64 # Move the Smiley Face Around
65 while True:
66     for frame in range(0, 8):
67         matrix.shift_right(True)
68         time.sleep(0.05)
69     for frame in range(0, 8):
70         matrix.shift_down(True)
71         time.sleep(0.05)
72     for frame in range(0, 8):
73         matrix.shift_left(True)
74         time.sleep(0.05)
75     for frame in range(0, 8):
76         matrix.shift_up(True)
77         time.sleep(0.05)

```

Listing 2: examples/ht16k33_segments_simpletest.py

```

1 # Basic example of setting digits on a LED segment display.
2 # This example and library is meant to work with Adafruit CircuitPython API.
3 # Author: Tony DiCola

```

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```

4  # License: Public Domain
5
6  import time
7
8  # Import all board pins.
9  import board
10 import busio
11
12 # Import the HT16K33 LED segment module.
13 from adafruit_ht16k33 import segments
14
15 # Create the I2C interface.
16 i2c = busio.I2C(board.SCL, board.SDA)
17
18 # Create the LED segment class.
19 # This creates a 7 segment 4 character display:
20 display = segments.Seg7x4(i2c)
21 # Or this creates a 14 segment alphanumeric 4 character display:
22 # display = segments.Seg14x4(i2c)
23 # Or this creates a big 7 segment 4 character display
24 # display = segments.BigSeg7x4(i2c)
25 # Finally you can optionally specify a custom I2C address of the HT16k33 like:
26 # display = segments.Seg7x4(i2c, address=0x70)
27
28 # Clear the display.
29 display.fill(0)
30
31 # Can just print a number
32 display.print(42)
33 time.sleep(2)
34
35 # Or, can print a hexadecimal value
36 display.print_hex(0xFF23)
37 time.sleep(2)
38
39 # Or, print the time
40 display.print("12:30")
41 time.sleep(2)
42
43 display.colon = False
44
45 # Or, can set individual digits / characters
46 # Set the first character to '1':
47 display[0] = "1"
48 # Set the second character to '2':
49 display[1] = "2"
50 # Set the third character to 'A':
51 display[2] = "A"
52 # Set the forth character to 'B':
53 display[3] = "B"
54 time.sleep(2)
55
56 # Or, can even set the segments to make up characters
57 if isinstance(display, segments.Seg7x4):
58     # 7-segment raw digits
59     display.set_digit_raw(0, 0xFF)
60     display.set_digit_raw(1, 0b11111111)

```

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```

61     display.set_digit_raw(2, 0x79)
62     display.set_digit_raw(3, 0b01111001)
63 else:
64     # 14-segment raw digits
65     display.set_digit_raw(0, 0x2D3F)
66     display.set_digit_raw(1, 0b0010110100111111)
67     display.set_digit_raw(2, (0b00101101, 0b00111111))
68     display.set_digit_raw(3, [0x2D, 0x3F])
69 time.sleep(2)
70
71 # Show a looping marquee
72 display.marquee("Deadbeef 192.168.100.102... ", 0.2)

```

Listing 3: examples/ht16k33_bicolor24_simpletest.py

```

1  # Basic example of using the Bi-color 24 segment bargraph display.
2  # This example and library is meant to work with Adafruit CircuitPython API.
3  # Author: Carter Nelson
4  # License: Public Domain
5
6  import time
7
8  # Import board related modules
9  import board
10 import busio
11
12 # Import the Bicolor24 driver from the HT16K33 module
13 from adafruit_ht16k33.bargraph import Bicolor24
14
15 # Create the I2C interface
16 i2c = busio.I2C(board.SCL, board.SDA)
17
18 # Create the LED bargraph class.
19 bc24 = Bicolor24(i2c)
20
21 # Set individual segments of bargraph
22 bc24[0] = bc24.LED_RED
23 bc24[1] = bc24.LED_GREEN
24 bc24[2] = bc24.LED_YELLOW
25
26 time.sleep(2)
27
28 # Turn them all off
29 bc24.fill(bc24.LED_OFF)
30
31 # Turn them on in a loop
32 for i in range(24):
33     bc24[i] = bc24.LED_RED
34     time.sleep(0.1)
35     bc24[i] = bc24.LED_OFF
36
37 time.sleep(1)
38
39 # Fill the entire bargraph
40 bc24.fill(bc24.LED_GREEN)

```

Listing 4: examples/ht16k33_matrix_pillow_image.py

```

1  # Basic example of drawing an image
2  # This example and library is meant to work with Adafruit CircuitPython API.
3  #
4  # This example is for use on (Linux) computers that are using CPython with
5  # Adafruit Blinka to support CircuitPython libraries. CircuitPython does
6  # not support PIL/pillow (python imaging library)!
7  #
8  # Author: Melissa LeBlanc-Williams
9  # License: Public Domain
10
11 # Import all board pins.
12 import board
13 import busio
14 from PIL import Image
15
16 # Import the HT16K33 LED matrix module.
17 from adafruit_ht16k33 import matrix
18
19 # Create the I2C interface.
20 i2c = busio.I2C(board.SCL, board.SDA)
21
22 # Create the matrix class.
23 # This creates a 16x8 matrix:
24 mtrx = matrix.Matrix16x8(i2c)
25 # Or this creates a 16x8 matrix backpack:
26 # mtrx = matrix.MatrixBackpack16x8(i2c)
27 # Or this creates a 8x8 matrix:
28 # mtrx = matrix.Matrix8x8(i2c)
29 # Or this creates a 8x8 bicolor matrix:
30 # mtrx = matrix.Matrix8x8x2(i2c)
31 # Finally you can optionally specify a custom I2C address of the HT16k33 like:
32 # mtrx = matrix.Matrix16x8(i2c, address=0x70)
33
34 if isinstance(mtrx, matrix.Matrix8x8x2):
35     image = Image.open("squares-color.png")
36 elif isinstance(mtrx, matrix.Matrix16x8):
37     image = Image.open("squares-mono-16x8.png")
38 else:
39     image = Image.open("squares-mono-8x8.png")
40
41 # Clear the matrix
42 mtrx.fill(0)
43 mtrx.image(image)

```

Listing 5: examples/ht16k33_animation_demo.py

```

1  """
2      Test script for display animations on an HT16K33 with alphanumeric display
3
4      The display must be initialized with auto_write=False.
5  """
6
7  from time import sleep
8  import board
9  import busio

```

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```

10 from adafruit_ht16k33.segments import Seg14x4
11
12 #
13 #   Segment bits on the HT16K33 with alphanumeric display.
14 #
15 #   Add the values of the segments you need to create a bitmask
16 #
17
18 N = 16384
19 M = 8192
20 L = 4096
21 K = 2048
22 J = 1024
23 I = 512
24 H = 256
25 G2 = 128
26 G1 = 64
27 F = 32
28 E = 16
29 D = 8
30 C = 4
31 B = 2
32 A = 1
33
34 #   The number of seconds to delay between writing segments
35 DEFAULT_CHAR_DELAY_SEC = 0.2
36
37 #   The number of cycles to go for each animation
38 DEFAULT_CYCLES = 5
39
40 #   Brightness of the display (0 to 15)
41 DEFAULT_DISPLAY_BRIGHTNESS = 0.3
42
43 #   Initialize the I2C bus
44 i2c = busio.I2C(board.SCL, board.SDA)
45
46 #   Initialize the HT16K33 with alphanumeric display featherwing.
47 #
48 #   You MUST set auto_write=False
49 display = Seg14x4(i2c, auto_write=False)
50 display.brightness = DEFAULT_DISPLAY_BRIGHTNESS
51
52
53 def animate(digits, bitmasks, delay=DEFAULT_CHAR_DELAY_SEC, auto_write=True):
54     """
55     Main driver for all alphanumeric display animations (WIP!!!)
56     Param: digits - a list of the digits to write to, in order, like [0, 1, 3].
57     ↳ The digits are
58         0 to 3 starting at the left most digit.
59     Param: bitmasks - a list of the bitmasks to write, in sequence, to the
60     ↳ specified digits.
61     Param: delay - The delay, in seconds (or fractions of), between writing
62     ↳ bitmasks to a digit.
63     Param: auto_write - Whether to actually write to the display immediately or
64     ↳ not.
65
66     Returns: Nothing

```

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```

63     """
64     if not isinstance(digits, list):
65         raise ValueError("The first parameter MUST be a list!")
66     if not isinstance(bitmasks, list):
67         raise ValueError("The second parameter MUST be a list!")
68     if delay < 0:
69         raise ValueError("The delay between frames must be positive!")
70     for dig in digits:
71         if not 0 <= dig <= 3:
72             raise ValueError(
73                 "Digit value must be \
74                 an integer in the range: 0-3"
75             )
76
77     for bits in bitmasks:
78         if not 0 <= bits <= 0xFFFF:
79             raise ValueError(
80                 "Bitmask value must be an \
81                 integer in the range: 0-65535"
82             )
83
84     display.set_digit_raw(dig, bits)
85
86     if auto_write:
87         display.show()
88         sleep(delay)
89
90
91 def chase_forward_and_reverse(delay=DEFAULT_CHAR_DELAY_SEC, cycles=DEFAULT_CYCLES):
92     cy = 0
93
94     while cy < cycles:
95         animate([0, 1, 2, 3], [A, 0], delay)
96         animate([3], [B, C, D, 0], delay)
97         animate([2, 1, 0], [D, 0], delay)
98         animate([0], [E, F, H, G2, 0], delay)
99         animate([1, 2], [G1, G2, 0], delay)
100        animate([3], [G1, J, A, 0], delay)
101        animate([2, 1], [A, 0], delay)
102        animate([0], [A, F, E, D, 0], delay)
103        animate([1, 2], [D, 0], delay)
104        animate([3], [D, C, B, J, G1, 0], delay)
105        animate([2, 1], [G2, G1, 0], delay)
106        animate([0], [H, 0], delay)
107
108        cy += 1
109
110
111 def prelude_to_spinners(delay=DEFAULT_CHAR_DELAY_SEC, cycles=DEFAULT_CYCLES):
112     cy = 0
113     auto_write = False
114
115     while cy < cycles:
116         animate([1, 2], [A], 0, auto_write)
117         display.show()
118         sleep(delay)
119

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```

120     animate([0, 3], [A], 0, auto_write)
121     display.show()
122     sleep(delay)
123
124     animate([0], [A + F], 0, auto_write)
125     animate([3], [A + B], 0, auto_write)
126     display.show()
127     sleep(delay)
128
129     animate([0], [A + E + F], 0, auto_write)
130     animate([3], [A + B + C], 0, auto_write)
131     display.show()
132     sleep(delay)
133
134     animate([0], [A + D + E + F], 0, auto_write)
135     animate([3], [A + B + C + D], 0, auto_write)
136     display.show()
137     sleep(delay)
138
139     animate([1], [A + D], 0, auto_write)
140     animate([2], [A + D], 0, auto_write)
141     display.show()
142     sleep(delay)
143
144     animate([1], [A + D + M], 0, auto_write)
145     animate([2], [A + D + K], 0, auto_write)
146     display.show()
147     sleep(delay)
148
149     animate([1], [A + D + M + H], 0, auto_write)
150     animate([2], [A + D + K + J], 0, auto_write)
151     display.show()
152     sleep(delay)
153
154     animate([0], [A + E + F + J + D], 0, auto_write)
155     animate([3], [A + B + C + H + D], 0, auto_write)
156     display.show()
157     sleep(delay)
158
159     animate([0], [A + E + F + J + K + D], 0, auto_write)
160     animate([3], [A + B + C + H + M + D], 0, auto_write)
161     display.show()
162     sleep(delay)
163
164     display.fill(0)
165     display.show()
166     sleep(delay)
167
168     cy += 1
169
170
171 def spinners(delay=DEFAULT_CHAR_DELAY_SEC, cycles=DEFAULT_CYCLES):
172     cy = 0
173     auto_write = False
174
175     while cy < cycles:
176         animate([0], [H + M], 0, auto_write)

```

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```

177     animate([1], [J + K], 0, auto_write)
178     animate([2], [H + M], 0, auto_write)
179     animate([3], [J + K], 0, auto_write)
180     display.show()
181     sleep(delay)
182
183     animate([0], [G1 + G2], 0, auto_write)
184     animate([1], [G1 + G2], 0, auto_write)
185     animate([2], [G1 + G2], 0, auto_write)
186     animate([3], [G1 + G2], 0, auto_write)
187     display.show()
188     sleep(delay)
189
190     animate([0], [J + K], 0, auto_write)
191     animate([1], [H + M], 0, auto_write)
192     animate([2], [J + K], 0, auto_write)
193     animate([3], [H + M], 0, auto_write)
194     display.show()
195     sleep(delay)
196
197     cy += 1
198
199     display.fill(0)
200
201
202 def enclosed_spinners(delay=DEFAULT_CHAR_DELAY_SEC, cycles=DEFAULT_CYCLES):
203     cy = 0
204     auto_write = False
205
206     while cy < cycles:
207         animate([0], [A + D + E + F + H + M], 0, auto_write)
208         animate([1], [A + D + J + K], 0, auto_write)
209         animate([2], [A + D + H + M], 0, auto_write)
210         animate([3], [A + B + C + D + J + K], 0, auto_write)
211         display.show()
212         sleep(delay)
213
214         animate([0], [A + D + E + F + G1 + G2], 0, auto_write)
215         animate([1], [A + D + G1 + G2], 0, auto_write)
216         animate([2], [A + D + G1 + G2], 0, auto_write)
217         animate([3], [A + B + C + D + G1 + G2], 0, auto_write)
218         display.show()
219         sleep(delay)
220
221         animate([0], [A + D + E + F + J + K], 0, auto_write)
222         animate([1], [A + D + H + M], 0, auto_write)
223         animate([2], [A + D + J + K], 0, auto_write)
224         animate([3], [A + B + C + D + H + M], 0, auto_write)
225         display.show()
226         sleep(delay)
227
228         cy += 1
229
230     display.fill(0)
231
232
233 def count_down():

```

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```

234     auto_write = False
235     numbers = [
236         [A + B + C + D + G1 + G2 + N],
237         [A + B + D + E + G1 + G2 + N],
238         [B + C + N],
239     ]
240     index = 0
241
242     display.fill(0)
243
244     while index < len(numbers):
245         animate([index], numbers[index], 0, auto_write)
246         display.show()
247         sleep(1)
248         display.fill(0)
249         sleep(0.5)
250
251         index += 1
252
253     sleep(1)
254     display.fill(0)
255
256 try:
257     text = "Init"
258
259     display.fill(1)
260     display.show()
261     sleep(1)
262     display.fill(0)
263     display.show()
264
265     display.print(text)
266     display.show()
267     sleep(2)
268     display.fill(0)
269     display.show()
270     sleep(1)
271
272     count_down()
273     sleep(0.2)
274
275     text = "Go!!"
276
277     display.print(text)
278     display.show()
279     sleep(1.5)
280     display.fill(0)
281     display.show()
282     sleep(0.5)
283     print()
284
285 while True:
286     # Arrow
287     print("Arrow")
288     animate([0, 1, 2], [G1 + G2], 0.1)
289     animate([3], [G1 + H + K], 0.1)
290

```

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```

291     sleep(1.0)
292     display.fill(0)
293     sleep(1.0)
294
295     # Flying
296     print("Flying")
297     cyc = 0
298
299     while cyc < DEFAULT_CYCLES:
300         animate([0], [H + J, G1 + G2, K + M, G1 + G2], DEFAULT_CHAR_DELAY_SEC)
301
302         cyc += 1
303
304     animate([0], [0])
305     sleep(1.0)
306     display.fill(0)
307     sleep(1.0)
308
309     # Chase forward and reverse.
310     print("Chase forward and reverse")
311     chase_forward_and_reverse(0.01, 5)
312     sleep(1.0)
313     display.fill(0)
314     sleep(1.0)
315
316     # Testing writing to more than one segment simultaneously
317     print("Prelude to Spinners")
318     prelude_to_spinners(0.1, 5)
319     sleep(1.0)
320     display.fill(0)
321     display.show()
322     sleep(1.0)
323
324     print("Spinners")
325     spinners(0.1, 20)
326     sleep(1.0)
327     display.fill(0)
328     display.show()
329     sleep(1.0)
330
331     print("Enclosed Spinners")
332     enclosed_spinners(0.1, 20)
333     sleep(1.0)
334     display.fill(0)
335     display.show()
336     sleep(1.0)
337
338     print()
339 except KeyboardInterrupt:
340     display.fill(0)
341     display.show()

```

6.2 adafruit_ht16k33.ht16k33

- Authors: Radomir Dopieralski & Tony DiCola for Adafruit Industries

```
class adafruit_ht16k33.ht16k33.HT16K33 (i2c, address=112, auto_write=True, brightness=1.0)
```

The base class for all displays. Contains common methods.

Parameters

- **address** (*int*) – The I2C address of the HT16K33.
- **auto_write** (*bool*) – True if the display should immediately change when set. If False, *show* must be called explicitly.
- **brightness** (*float*) – 0.0 - 1.0 default brightness level.

auto_write

Auto write updates to the display.

blink_rate

The blink rate. Range 0-3.

brightness

The brightness. Range 0.0-1.0

fill (*color*)

Fill the whole display with the given color.

show ()

Refresh the display and show the changes.

6.3 Matrix Displays

```
class adafruit_ht16k33.matrix.Matrix16x8 (i2c, address=112, auto_write=True, brightness=1.0)
```

The matrix wing.

pixel (*x*, *y*, *color=None*)

Get or set the color of a given pixel.

```
class adafruit_ht16k33.matrix.Matrix8x8 (i2c, address=112, auto_write=True, brightness=1.0)
```

A single matrix.

columns

Read-only property for number of columns

image (*img*)

Set buffer to value of Python Imaging Library image. The image should be in 1 bit mode and a size equal to the display size.

pixel (*x*, *y*, *color=None*)

Get or set the color of a given pixel.

rows

Read-only property for number of rows

shift (*x*, *y*, *rotate=False*)

Shift pixels by x and y

Parameters **rotate** – (Optional) Rotate the shifted pixels to the left side (default=False)

shift_down (*rotate=False*)

Shift all pixels down

Parameters rotate – (Optional) Rotate the shifted pixels to top (default=False)

shift_left (*rotate=False*)
Shift all pixels left

Parameters rotate – (Optional) Rotate the shifted pixels to the right side (default=False)

shift_right (*rotate=False*)
Shift all pixels right

Parameters rotate – (Optional) Rotate the shifted pixels to the left side (default=False)

shift_up (*rotate=False*)
Shift all pixels up

Parameters rotate – (Optional) Rotate the shifted pixels to bottom (default=False)

class adafruit_ht16k33.matrix.**Matrix8x8x2** (*i2c, address=112, auto_write=True, brightness=1.0*)

A bi-color matrix.

fill (*color*)
Fill the whole display with the given color.

image (*img*)
Set buffer to value of Python Imaging Library image. The image should be a size equal to the display size.

pixel (*x, y, color=None*)
Get or set the color of a given pixel.

class adafruit_ht16k33.matrix.**MatrixBackpack16x8** (*i2c, address=112, auto_write=True, brightness=1.0*)

A double matrix backpack.

pixel (*x, y, color=None*)
Get or set the color of a given pixel.

6.4 Segment Displays

class adafruit_ht16k33.segments.**BigSeg7x4** (*i2c, address=112, auto_write=True*)

Numeric 7-segment display. It has the same methods as the alphanumeric display, but only supports displaying a limited set of characters.

ampm
The AM/PM indicator.

bottom_left_dot
The bottom-left dot indicator.

top_left_dot
The top-left dot indicator.

class adafruit_ht16k33.segments.**Colon** (*disp, num_of_colons=1*)
Helper class for controlling the colons. Not intended for direct use.

class adafruit_ht16k33.segments.**Seg14x4** (*i2c, address=112, auto_write=True, brightness=1.0*)

Alpha-numeric, 14-segment display.

marquee (*text, delay=0.25, loop=True*)
Automatically scroll the text at the specified delay between characters

Parameters

- **text** (*str*) – The text to display
- **delay** (*float*) – (optional) The delay in seconds to pause before scrolling to the next character (default=0.25)
- **loop** (*bool*) – (optional) Whether to endlessly loop the text (default=True)

print (*value*, *decimal=0*)

Print the value to the display.

print_hex (*value*)

Print the value as a hexadecimal string to the display.

scroll (*count=1*)

Scroll the display by specified number of places.

set_digit_raw (*index*, *bitmask*)

Set digit at position to raw bitmask value. Position should be a value of 0 to 3 with 0 being the left most character on the display.

bitmask should be 2 bytes such as: 0xFFFF If can be passed as an integer, list, or tuple

class `adafruit_ht16k33.segments.Seg7x4` (*i2c*, *address=112*, *auto_write=True*)

Numeric 7-segment display. It has the same methods as the alphanumeric display, but only supports displaying a limited set of characters.

colon

Simplified colon accessor

scroll (*count=1*)

Scroll the display by specified number of places.

set_digit_raw (*index*, *bitmask*)

Set digit at position to raw bitmask value. Position should be a value of 0 to 3 with 0 being the left most digit on the display.

CHAPTER 7

Indices and tables

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

a

`adafruit_ht16k33.ht16k33`, [23](#)
`adafruit_ht16k33.matrix`, [24](#)
`adafruit_ht16k33.segments`, [25](#)

A

`adafruit_ht16k33.ht16k33` (module), 23
`adafruit_ht16k33.matrix` (module), 24
`adafruit_ht16k33.segments` (module), 25
`ampm` (`adafruit_ht16k33.segments.BigSeg7x4` attribute), 25
`auto_write` (`adafruit_ht16k33.ht16k33.HT16K33` attribute), 24

B

`BigSeg7x4` (class in `adafruit_ht16k33.segments`), 25
`blink_rate` (`adafruit_ht16k33.ht16k33.HT16K33` attribute), 24
`bottom_left_dot` (`adafruit_ht16k33.segments.BigSeg7x4` attribute), 25
`brightness` (`adafruit_ht16k33.ht16k33.HT16K33` attribute), 24

C

`colon` (`adafruit_ht16k33.segments.Seg7x4` attribute), 26
`Colon` (class in `adafruit_ht16k33.segments`), 25
`columns` (`adafruit_ht16k33.matrix.Matrix8x8` attribute), 24

F

`fill()` (`adafruit_ht16k33.ht16k33.HT16K33` method), 24
`fill()` (`adafruit_ht16k33.matrix.Matrix8x8x2` method), 25

H

`HT16K33` (class in `adafruit_ht16k33.ht16k33`), 23

I

`image()` (`adafruit_ht16k33.matrix.Matrix8x8` method), 24
`image()` (`adafruit_ht16k33.matrix.Matrix8x8x2` method), 25

M

`marquee()` (`adafruit_ht16k33.segments.Seg14x4` method), 25
`Matrix16x8` (class in `adafruit_ht16k33.matrix`), 24
`Matrix8x8` (class in `adafruit_ht16k33.matrix`), 24
`Matrix8x8x2` (class in `adafruit_ht16k33.matrix`), 25
`MatrixBackpack16x8` (class in `adafruit_ht16k33.matrix`), 25

P

`pixel()` (`adafruit_ht16k33.matrix.Matrix16x8` method), 24
`pixel()` (`adafruit_ht16k33.matrix.Matrix8x8` method), 24
`pixel()` (`adafruit_ht16k33.matrix.Matrix8x8x2` method), 25
`pixel()` (`adafruit_ht16k33.matrix.MatrixBackpack16x8` method), 25
`print()` (`adafruit_ht16k33.segments.Seg14x4` method), 26
`print_hex()` (`adafruit_ht16k33.segments.Seg14x4` method), 26

R

`rows` (`adafruit_ht16k33.matrix.Matrix8x8` attribute), 24

S

`scroll()` (`adafruit_ht16k33.segments.Seg14x4` method), 26
`scroll()` (`adafruit_ht16k33.segments.Seg7x4` method), 26
`Seg14x4` (class in `adafruit_ht16k33.segments`), 25
`Seg7x4` (class in `adafruit_ht16k33.segments`), 26
`set_digit_raw()` (`adafruit_ht16k33.segments.Seg14x4` method), 26
`set_digit_raw()` (`adafruit_ht16k33.segments.Seg7x4` method), 26
`shift()` (`adafruit_ht16k33.matrix.Matrix8x8` method), 24

`shift_down()` (*adafruit_ht16k33.matrix.Matrix8x8*
method), [24](#)
`shift_left()` (*adafruit_ht16k33.matrix.Matrix8x8*
method), [25](#)
`shift_right()` (*adafruit_ht16k33.matrix.Matrix8x8*
method), [25](#)
`shift_up()` (*adafruit_ht16k33.matrix.Matrix8x8*
method), [25](#)
`show()` (*adafruit_ht16k33.ht16k33.HT16K33* *method*),
[24](#)

T

`top_left_dot` (*adafruit_ht16k33.segments.BigSeg7x4*
attribute), [25](#)