
sparkfun_qwiic_alphanumeric_py

Release 0.0.01

SparkFun Electronics

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CONTENTS:

1	Contents	3
2	Supported Platforms	5
3	Dependencies	7
4	Documentation	9
5	Installation	11
5.1	PyPi Installation	11
6	Example Use	13
7	Table of Contents	15
7.1	API Reference	15
7.1.1	qwiic_alphanumeric	15
7.2	Example One - Print String	21
7.3	Example Two - Turn on one Segment	22
7.4	Example Three - Print Char	24
7.5	Example Four - Set Brightness	25
7.6	Example Five - Set Blink Rate	27
7.7	Example Six - Colon and Decimal	28
7.8	Example Seven - Unknown Character	30
7.9	Example Eight - Multiple Displays	32
7.10	Example Nine - Scrolling String	33
8	Indices and tables	35
	Python Module Index	37
	Index	39

Python module for the [SparkFun Qwiic Alphanumeric Display].

It is compatible with the following products:

- [SparkFun Qwiic Alphanumeric Display - Pink](#)
- [SparkFun Qwiic Alphanumeric Display - Red](#)
- [SparkFun Qwiic Alphanumeric Display - Purple](#)
- [SparkFun Qwiic Alphanumeric Display - Blue](#)
- [SparkFun Qwiic Alphanumeric Display - Green](#)
- [SparkFun Qwiic Alphanumeric Display - White](#)

This python package is a port of the existing [SparkFun Qwiic Alphanumeric Arduino Library](#)

This package can be used in conjunction with the overall [SparkFun qwiic Python Package](#)

New to qwiic? Take a look at the entire [SparkFun qwiic ecosystem](#).

CONTENTS

- *Supported Platforms*
- *Dependencies*
- *Installation*
- *Documentation*
- *Example Use*

SUPPORTED PLATFORMS

The Qwiic LED Stick Python package currently supports the following platforms:

- [Raspberry Pi](#)

DEPENDENCIES

This driver package depends on the qwiic I2C driver: [Qwiic_I2C_Py](#)

DOCUMENTATION

The SparkFun Qwiic LED Stick module documentation is hosted at [ReadTheDocs](#)

INSTALLATION

5.1 PyPi Installation

This repository is hosted on PyPi as the [sparkfun-qwiic-alphanumeric](#) package. On systems that support PyPi installation via pip, this library is installed using the following commands

For all users (note: the user must have sudo privileges):

```
sudo pip install sparkfun-qwiic-alphanumeric
```

For the current user:

```
pip install sparkfun-qwiic-alphanumeric
```

To install, make sure the setuptools package is installed on the system.

Direct installation at the command line:

```
python setup.py install
```

To build a package for use with pip:

```
python setup.py sdist
```

A package file is built and placed in a subdirectory called dist. This package file can be installed using pip.

```
cd dist  
pip install sparkfun-qwiic-alphanumeric-<version>.tar.gz
```


EXAMPLE USE

See the examples directory for more detailed use examples.

```
from __future__ import print_function
import qwiic_alphanumeric
import time
import sys

def run_example():

    print("\nSparkFun Qwiic Alphanumeric - Example 4: Print String")
    my_display = qwiic_alphanumeric.QwiicAlphanumeric()

    if my_display.begin() == False:
        print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your \
↳connection.", \
            file=sys.stderr)
        return

    print("\nQwiic Alphanumeric ready!")

    my_display.print("Milk")

if __name__ == '__main__':
    try:
        run_example()
    except (KeyboardInterrupt, SystemExit) as exErr:
        print("\nEnding Example 4")
        sys.exit(0)
```


TABLE OF CONTENTS

7.1 API Reference

7.1.1 qwiic_alphanumeric

Python module for the SparkFun Qwiic Alphanumeric displays.

This package is a port of the existing [SparkFun Alphanumeric Display Arduino Library](https://github.com/sparkfun/SparkFun_Alphanumeric_Display_Arduino_Library).

This package can be used in conjunction with the overall [SparkFun Qwiic Python Package](https://github.com/sparkfun/Qwiic_Py).

New to qwiic? Take a look at the entire [SparkFun Qwiic Ecosystem](<https://www.sparkfun.com/qwiic>).

class `qwiic_alphanumeric.QwiicAlphanumeric(address=None, i2c_driver=None)`

Parameters

- **address** – The I2C address to use for the device. If not provided, the default address is used.
- **i2c_driver** – An existing i2c driver object. If not provided a driver is created.

Returns The QwiicAlphanumeric device object.

Return type Object

begin(`address_display_one=112, address_display_two=255, address_display_three=255, address_display_four=255`)

Initialize the operation of the Qwiic Alphanumeric. Assign addresses to displays and determine the number of displays connected to the bus. Run `is_connected()`. Initialize and clear displays.

Parameters

- **address_display_one** – I2C address of first display
- **address_display_two** – I2C address of the second display
- **address_display_three** – I2C address of the third display
- **address_display_four** – I2C address of the fourth display

Returns Returns true if a Qwiic Alphanumeric is connected to the system. False otherwise.

Return type bool

clear()

Turn off all segments of all displays connected to bus

Returns True if display was updated correctly, false otherwise

Return type bool

colon_off()

Turn the colon off for all displays on the bus

Returns true if all displays are successfully updated, false otherwise.

Return type bool

colon_off_single(*display_number*)

Turn the colon off for a single display

Parameters **display_number** – number of display to update.

Returns true if display updated successfully, false otherwise.

Return type bool

colon_on()

Turn the colon on for all displays on the bus

Returns true if displays successfully updated, false otherwise.

Return type bool

colon_on_single(*display_number*)

Turn the colon on for a single display

Parameters **display_number** – number of display to update.

Returns true if display updated successfully, false otherwise.

Return type bool

decimal_off()

Turn the decimal point off for all displays on the bus

Returns true if displays are updated successfully, false otherwise.

Return type bool

decimal_off_single(*display_number*)

Turn the decimal point off for a single display

Parameters **display_number** – the number of display to turn the decimal point off for.

Returns true if decimal is successfully turned off, false otherwise.

Return type bool

decimal_on()

Turn the decimal on for all displays on the bus

Returns true if displays are updated successfully, false otherwise.

Return type bool

decimal_on_single(*display_number*)

Turn the decimal point on for a single display

Parameters **display_number** – the number of display to turn the decimal on for.

Returns true if decimal is successfully turned on, false otherwise.

Return type bool

disable_system_clock()

Turn off the system oscillator for all displays on the bus

Returns True if all clocks successfully disabled, false otherwise.

Return type bool

disable_system_clock_single(*display_number*)

Turn off the system oscillator for standby mode

Parameters **display_number** – number of display on I2C bus to disable the system clock for.

Returns True if setting updated successfully, false otherwise.

Return type bool

display_off()

Turn off all displays on the I2C bus

Returns True if all displays are successfully turned off, false otherwise.

Return type bool

display_off_single(*display_number*)

Turn a single alphanumeric display off

Parameters **display_number** – the number of display to be updated

Returns True if display is successfully turned off, false otherwise

Return type bool

display_on()

Turn on all displays on the I2C bus

Returns True if displays are successfully turned on, false otherwise.

Return type bool

display_on_single(*display_number*)

Turn a single alphanumeric display on

Parameters **display_number** – the number of display to be updated

Returns True if display is successfully turned on, false otherwise

Return type bool

enable_system_clock()

Turn on the system oscillator for all displays on the I2C bus

Returns True if all clocks successfully enabled, false otherwise.

Return type bool

enable_system_clock_single(*display_number*)

Turn on the system oscillator for normal operation mode

Parameters **display_number** – number of display on I2C bus to enable the system clock for.

Returns True if setting updated successfully, false otherwise.

Return type bool

illuminate_char(*segments_to_turn_on*, *digit*)

Given a binary set of segments and a digit, store this data into the RAM array

Parameters

- **segments_to_turn_on** – list of segments to illuminate which create an alphanumeric character
- **digit** – digit on which to illuminate this char (list of segments)

Returns nothing

Return type Void

illuminate_segment(*segment, digit*)

Given a segment and a digit, set the matching bit within the RAM of the Holtek RAM set

Parameters

- **segment** – the segment to illuminate. There are 14 segments available, so A-N
- **digit** – the digit on the display to turn the segment on. There are 4 digits per display

Returns nothing

Return type Void

initialize()

Run through initialization sequence for each display connected on the I2C bus Enable clocks, set brightness default to full brightness, turn off blinking, and turn all displays on

Returns True if all function calls passed, False if there's a failure somewhere

Return type bool

is_connected(*display_number*)

Check that displays are responding on the I2C bus.

Parameters **display_number** – The number of the display on the bus

Returns True if the device is connected, false otherwise.

Return type bool

look_up_display_address(*display_number*)

This function connects the display number to its corresponding address

Parameters **display_number** – number of display on I2C bus. The left-most display is zero and display number increments by 1 with each additional display on bus.

Returns The I2C address of given display. 0 if display_number is not valid

Return type int

print(*print_string*)

Print a whole string to the alphanumeric display(s)

Parameters **print_string** – string to be printed

Returns true if update_display() is successful, false otherwise

Return type bool

print_char(*display_char, digit*)

Print a character, for a given digit, on display

Parameters

- **display_char** – the character to be printed to display
- **digit** – the digit position where character should be printed

Returns nothing

Return type Void

set_blink_rate(*rate*)

Set the blink rate of all displays on the bus as defined by the datasheet.

Parameters **rate** – Blink frequency in Hz. Valid options are defined by datasheet: 2.0, 1.0, or 0.5 Hz. Any other input to this function will result in steady alphanumeric display (no blink).

Returns True if blink setting is successfully updated, false otherwise.

Return type bool

set_blink_rate_single(*display_number, rate*)

Set the blink rate of a single display on the bus

Parameters

- **display_number** – the number of display to be updated
- **rate** – Blink frequency in Hz. Valid options are defined by datasheet: 2.0, 1.0, or 0.5 Hz. Any other input to this function will result in steady alphanumeric display (no blink).

Returns True if blink setting is successfully updated, false otherwise.

Return type bool

set_brightness(*duty*)

This function sets the brightness of all displays on the bus. Duty cycle over 16.

Parameters **duty** – Valid between 0 (display off) and 15 (full brightness)

Returns True if brightness is successfully updated, false otherwise.

Return type bool

set_brightness_single(*display_number, duty*)

Set the brightness of a single display

Parameters

- **display_number** – The number of display on the I2C bus.
- **duty** – Over 16. Valid between 0 (display off) and 15 (full brightness)

Returns True if brightness is successfully updated, false otherwise.

Return type bool

set_colon_on_off(*display_number, turn_on_colon*)

Set or clear the colon on/off bit

Parameters

- **display_number** – number of display to update.
- **turn_on_colon** – boolean variable. If true, colon will turn on. If false, colon will turn off.

:return true if display updated successfully, false otherwise. :rtype: bool

set_decimal_on_off(*display_number, turn_on_decimal*)

Set or clear the decimal on/off bit

Parameters

- **display_number** – the number of display to update.

- **turn_on_decimal** – boolean variable. If true, will turn decimal on. If false, will turn decimal off.

Returns true if the display is updated successfully, false otherwise.

Return type bool

set_display_on_off(*display_number*, *turn_on_display*)

Set or clear the display on/off bit of a given display number

Parameters

- **display_number** – the number of display to be updated
- **turn_on_display** – boolean variable. If true, will turn display on. If false, will turn display off

Returns True if display is successfully updated, false otherwise.

Return type bool

shift_left(*shift_amt=1*)

Shift the display content to the left a number of digits

Parameters **shift_amt** – the number of digits to shift the string

Returns true if display updates successfully, false otherwise.

Return type bool

shift_right(*shift_amt=1*)

Shift the display content to the right a number of digits

Parameters **shift_amt** – the number of digits to shift the string

Returns true if display updates successfully, false otherwise.

Return type bool

update_display()

Push the contents of display_RAM out on to the various displays in 16 byte chunks

Returns true if displays are updated successfully, false otherwise.

Return type bool

write_RAM(*address*, *reg*, *buff*)

Write LED updates to the RAM of the LED driver IC

Parameters

- **address** – I2C address of the display
- **reg** – the location in RAM to write to
- **buff** – the bytes to be written

Returns true if RAM has been written to successfully, false otherwise.

Return type bool

7.2 Example One - Print String

Listing 1: examples/qwiic_alphanumeric_ex01_print_string.py

```

1  #!/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex4_print_string.py
4  #
5  # This example shows how to use the print() function to illuminate strings
6  # on the alphanumeric display.
7  # -----
8  #
9  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
10 #
11 # This python library supports the SparkFun Electronics qwiic sensor/
12 # board ecosystem on a Raspberry Pi (and compatible) single board
13 # computers.
14 #
15 # More information on qwiic is at https://www.sparkfun.com/qwiic
16 #
17 # Do you like this library? Help support SparkFun by buying a board!
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40 # =====
41 # Example 4
42
43 from __future__ import print_function
44 import qwiic_alphanumeric
45 import time
46 import sys
47
48 def run_example():

```

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```

49     print("\nSparkFun Qwiic Alphanumeric - Example 4: Print String")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52
53     if my_display.begin() == False:
54         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your_
↳connection.", \
55             file=sys.stderr)
56         return
57
58     print("\nQwiic Alphanumeric ready!")
59
60     my_display.print("Milk")
61
62 if __name__ == '__main__':
63     try:
64         run_example()
65     except (KeyboardInterrupt, SystemExit) as exErr:
66         print("\nEnding Example 4")
67         sys.exit(0)

```

7.3 Example Two - Turn on one Segment

Listing 2: examples/qwiic_alphanumeric_ex02_turn_on_one_segment.py

```

1  #!/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex2_turn_on_one_segment.py
4  #
5  # This example tests illuminating individual segments of the display. Pass
6  # in the segment and digit you wish to illuminate into illuminate_segment().
7  # -----
8  #
9  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
10 #
11 # This python library supports the SparkFun Electronics qwiic sensor/
12 # board ecosystem on a Raspberry Pi (and compatable) single board
13 # computers.
14 #
15 # More information on qwiic is at https://www.sparkfun.com/qwiic
16 #
17 # Do you like this library? Help support SparkFun by buying a board!
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```

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```

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40 #=====
41 # Example 2
42
43 from __future__ import print_function
44 import qwiic_alphanumeric
45 import time
46 import sys
47
48 def run_example():
49
50     print("\nSparkFun Qwiic Alphanumeric - Example 2: Turn On One Segment")
51     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
52
53     if my_display.begin() == False:
54         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your_
↪connection", \
55             file=sys.stderr)
56         return
57
58     print("\nQwiic Alphanumeric ready!")
59
60     my_display.illuminate_segment('A', 0)
61     my_display.illuminate_segment('L', 1)
62     my_display.illuminate_segment('I', 2)
63     my_display.illuminate_segment('G', 3)
64
65     my_display.update_display()
66
67 if __name__ == '__main__':
68     try:
69         run_example()
70     except (KeyboardInterrupt, SystemExit) as exErr:
71         print("\nEnding Example 2")
72         sys.exit(0)

```

7.4 Example Three - Print Char

Listing 3: examples/qwiic_alphanumeric_ex03_print_char.py

```

1  #!/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex3_print_char.py
4  #
5  # This example tests illuminating a whole character on the 14-segment display.
6  # -----
7  #
8  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
9  #
10 # This python library supports the SparkFun Electronics qwiic sensor/
11 # board ecosystem on a Raspberry Pi (and compatable) single board
12 # computers.
13 #
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39 # =====
40 # Example 3
41
42 from __future__ import print_function
43 import qwiic_alphanumeric
44 import time
45 import sys
46
47 def run_example():
48

```

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```

49     print("\nSparkFun Qwiic Alphanumeric - Example 3: Print Char")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52     if my_display.begin() == False:
53         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your_
↳connection.", \
54             file=sys.stderr)
55         return
56
57     print("\nQwiic Alphanumeric ready!")
58
59     my_display.print_char('W', 0)
60     my_display.print_char('H', 1)
61     my_display.print_char('A', 2)
62     my_display.print_char('T', 3)
63
64     my_display.update_display()
65
66     ## Un comment these lines if you want to see all available characters
67     ## Print to every digit of a given display
68     # for digit_num in range(0, 4):
69         # for i in range(ord(' '), ord('~')):
70             # if i is not ord(':') or ord('.')
71                 # my_display.print_char(chr(i), digit_num)
72                 # my_display.update_display()
73                 # time.sleep(1)
74                 # my_display.clear()
75
76 if __name__ == '__main__':
77     try:
78         run_example()
79     except (KeyboardInterrupt, SystemExit) as exErr:
80         print("\nEnding Example 3")
81         sys.exit(0)

```

7.5 Example Four - Set Brightness

Listing 4: examples/qwiic_alphanumeric_ex04_set_brightness.py

```

1  # !/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex5_set_brightness.py
4  #
5  # This example sets the brightness of the Qwiic Alphanumeric display.
6  # -----
7  #
8  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
9  #
10 # This python library supports the SparkFun Electronics qwiic sensor/
11 # board ecosystem on a Raspberry Pi (and compatable) single board

```

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```

12 # computers.
13 #
14 # More information on qwiic is at https://www.sparkfun.com/qwiic
15 #
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39 #=====
40 # Example 5
41
42 from __future__ import print_function
43 import qwiic_alphanumeric
44 import time
45 import sys
46
47 def run_example():
48
49     print("\nSparkFun Qwiic Alphanumeric - Example 5: Set Brightness")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52     if my_display.begin() == False:
53         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your_
↳ wiring.", \
54             file=sys.stderr)
55         return
56
57     print("\nQwiic Alphanumeric Ready!")
58
59     while True:
60         for i in range(0, 16):
61             # The input to set_brightness() is a duty cycle over 16
62             # So, the acceptable inputs to this function are ints between 0 (display off)

```

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```

63         # and 15 (full brightness)
64         my_display.set_brightness(i)
65         my_display.display_print("Milk")
66         time.sleep(1)
67
68     if __name__ == '__main__':
69         try:
70             run_example()
71         except (KeyboardInterrupt, SystemExit) as exErr:
72             print("\nEnding Example 5")
73             sys.exit(0)

```

7.6 Example Five - Set Blink Rate

Listing 5: examples/qwiic_alphanumeric_ex05_set_blink_rate.py

```

1  #!/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex6_set_blink_rate.py
4  #
5  # This example sets the blink rate of the display.
6  # -----
7  #
8  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
9  #
10 # This python library supports the SparkFun Electronics qwiic sensor/
11 # board ecosystem on a Raspberry Pi (and compatable) single board
12 # computers.
13 #
14 # More information on qwiic is at https://www.sparkfun.com/qwiic
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39 #=====
40 # Example 6
41
42 from __future__ import print_function
43 import qwiic_alphanumeric
44 import time
45 import sys
46
47 def run_example():
48
49     print("\nSparkFun Qwiic Alphanumeric - Example 6: Set Blink Rate")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52     if my_display.begin() == False:
53         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your
↪connection.", \
54             file=sys.stderr)
55         return
56
57     print("\nQwiic Alphanumeric ready!")
58
59     # Blink rate in Hz
60     # Acceptable options are defined by the HT16K33 datasheet and are 0.5, 1.0, or 2.0
↪Hz (float)
61     my_display.set_blink_rate(0.5)
62
63     my_display.print("Milk")
64
65 if __name__ == '__main__':
66     try:
67         run_example()
68     except (KeyboardInterrupt, SystemExit) as exErr:
69         print("\nEnding Example 6")
70         sys.exit(0)

```

7.7 Example Six - Colon and Decimal

Listing 6: examples/qwiic_alphanumeric_ex06_colon_and_decimal.py

```

1 #!/usr/bin/env python
2 # -----
3 # qwiic_alphanumeric_ex7_colon_and_decimal .py
4 #
5 # This example tests the library's response to printing colons or decimal points.
6 # -----
7 #

```

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```

8  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
9  #
10 # This python library supports the SparkFun Electronics qwiic sensor/
11 # board ecosystem on a Raspberry Pi (and compatable) single board
12 # computers.
13 #
14 # More information on qwiic is at https://www.sparkfun.com/qwiic
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39 #=====
40 # Example 7
41
42 from __future__ import print_function
43 import qwiic_alphanumeric
44 import time
45 import sys
46
47 def run_example():
48
49     print("\nSparkFun Qwiic Alphanumeric - Example 7: Colon and Decimal")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52     if my_display.begin() == False:
53         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your_
↪connections.", \
54             file=sys.stderr)
55         return
56
57     print("\nQwiic Alphanumeric ready!")
58

```

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```

59     # You can print colons and decimals
60     # NOTE: they can only go in the character position deterined by the layout of the
    ↳display
61     my_display.print("12:3.4")
62
63     # You can also turn decimals and colon on and off manually
64     # my_display.decimal_on() # Turn all decimals on
65     # my_display.decimal_off() # Turn all decimals off
66     # my_display.decimal_on_single(1) # Turn decimal on for display one
67     # my_display.decimal_off_single(1) # Turn decimal off for display one
68     # my_display.colon_on() # Turn all colons on
69     # my_display.colon_off() # Turn all the colons off
70     # my_display.colon_on_single(1) # Turn colon on for display one
71     # my_display.colon_off_single(1) # Turn colon off for display one
72
73 if __name__ == '__main__':
74     try:
75         run_example()
76     except (KeyboardInterrupt, SystemExit) as exErr:
77         print("\nEnding Example 7")
78         sys.exit(0)

```

7.8 Example Seven - Unknown Character

Listing 7: examples/qwiic_alphanumeric_ex07_unknown_char.py

```

1  # !/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex8_unknown_char.py
4  #
5  # This example demonstrates what the library does when the user tries to
6  # print an unknown character.
7  # -----
8  #
9  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
10 #
11 # This python library supports the SparkFun Electronics qwiic sensor/
12 # board ecosystem on a Raspberry Pi (and compatable) single board
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40 #=====
41 # Example 8
42
43 from __future__ import print_function
44 import qwiic_alphanumeric
45 import time
46 import sys
47
48 def run_example():
49
50     print("\nSparkFun Qwiic Alphanumeric - Example 8: Unknown Char")
51     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
52
53     if my_display.begin() == False:
54         print("\nThe Qwiic Alphanumeric isn't connected to the system. Please check your
55 ↪connection.", \
56             file=sys.stderr)
57         return
58
59     print("\nQwiic Alphanumeric ready!")
60
61     # Because '\t' is a character unknown to the library, expect the display
62     # to turn on all segments for that unknown digit/character
63     my_display.print("\t\t\t\t\t") # Tabs are not printable characters
64
65 if __name__ == '__main__':
66     try:
67         run_example()
68     except (KeyboardInterrupt, SystemExit) as exErr:
69         print("\nEnding Example 8")
70         sys.exit(0)

```

7.9 Example Eight - Multiple Displays

Listing 8: examples/qwiic_alphanumeric_ex08_multi_display.py

```

1  #!/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex9_multi_display.py
4  #
5  # This example demonstrates how to connect multiple displays to the bus
6  # to print longer strings.
7  # -----
8  #
9  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
10 #
11 # This python library supports the SparkFun Electronics qwiic sensor/
12 # board ecosystem on a Raspberry Pi (and compatable) single board
13 # computers.
14 #
15 # More information on qwiic is at https://www.sparkfun.com/qwiic
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40 # =====
41 # Example 9
42
43 from __future__ import print_function
44 import qwiic_alphanumeric
45 import time
46 import sys
47
48 def run_example():

```

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```

49     print("\nSparkFun Qwiic Alphanumeric - Example 9: Multi Display")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52
53     if my_display.begin(0x70, 0x71) == False:
54         print("\nThe Qwiic Alphanumerics aren't connected to the system. Please check_
↪ your connection", \
55             file=sys.stderr)
56         return
57
58     print("\nQwiic Alphanumerics ready!")
59
60     my_display.print("Get Milk")
61
62 if __name__ == '__main__':
63     try:
64         run_example()
65     except (KeyboardInterrupt, SystemExit) as exErr:
66         print("\nEnding Example 9")
67         sys.exit(0)

```

7.10 Example Nine - Scrolling String

Listing 9: examples/qwiic_alphanumeric_ex09_scrolling_string.py

```

1  #!/usr/bin/env python
2  # -----
3  # qwiic_alphanumeric_ex10_scrolling_string.py
4  #
5  # This example tests the scrolling functionality of the display.
6  # -----
7  #
8  # Written by Priyanka Makin @ SparkFun Electronics, September 2021
9  #
10 # This python library supports the SparkFun Electronics qwiic sensor/
11 # board ecosystem on a Raspberry Pi (and compatable) single board
12 # computers.
13 #
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39 #=====
40 # Example 10
41
42 from __future__ import print_function
43 import qwiic_alphanumeric
44 import time
45 import sys
46
47 def run_example():
48
49     print("\nSparkFun Qwiic Alphanumeric - Example 10: Scrolling String")
50     my_display = qwiic_alphanumeric.QwiicAlphanumeric()
51
52     if my_display.begin(0x70, 0x71) == False:
53         print("\nThe Qwiic Alphanumerics aren't connected to the system. Please check_
↪ your connection", \
54             file=sys.stderr)
55         return
56
57     print("\nQwiic Alphanumerics passed begin!")
58
59     my_display.print("GET MILK")
60
61     while 1:
62         time.sleep(1)
63         my_display.shift_left()
64         # Alternatively - you could also shift the string to the right
65         #my_display.shift_right()
66
67 if __name__ == '__main__':
68     try:
69         run_example()
70     except (KeyboardInterrupt, SystemExit) as exErr:
71         print("\nEnding Example 10")
72         sys.exit(0)

```

INDICES AND TABLES

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

PYTHON MODULE INDEX

q

`qwiic_alphanumeric`, [15](#)

INDEX

B

`begin()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 15

C

`clear()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 15

`colon_off()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`colon_off_single()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`colon_on()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`colon_on_single()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

D

`decimal_off()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`decimal_off_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`decimal_on()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`decimal_on_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`disable_system_clock()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 16

`disable_system_clock_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`display_off()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`display_off_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`display_on()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`display_on_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*

method), 17

E

`enable_system_clock()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`enable_system_clock_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`illuminate_char()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 17

`illuminate_segment()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 18

`initialize()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 18

`is_connected()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 18

L

`look_up_display_address()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 18

M

module
 qwiic_alphanumeric, 15

P

`print()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 18

`print_char()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 18

Q

qwiic_alphanumeric
module, 15

QwiicAlphanumeric (class in *qwiic_alphanumeric*), 15

S

`set_blink_rate()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 19

`set_blink_rate_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 19

`set_brightness()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 19

`set_brightness_single()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 19

`set_colon_on_off()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 19

`set_decimal_on_off()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 19

`set_display_on_off()`
(*qwiic_alphanumeric.QwiicAlphanumeric*
method), 20

`shift_left()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 20

`shift_right()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 20

U

`update_display()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 20

W

`write_RAM()` (*qwiic_alphanumeric.QwiicAlphanumeric*
method), 20