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1  #!/usr/bin/env python3
2  import HD44780MCP
3  import time
4  import MCP230XX
5
6  #initialize MCP
7  i2cAddr = 0x21 # MCP23008/17 i2c address
8  MCP = MCP230XX.MCP230XX('MCP23008', i2cAddr)
9  #MCP = MCP230XX.MCP230XX('MCP23017', i2cAddr)
10
11 # turn on backlight if using Adafruit i2c LCD backpack (uses MCP23008)
12 blPin = 7 # Back light pin when using Adafruit LCD backpack
13 MCP.set_mode(blPin, 'output')
14 MCP.output(blPin, True) # turn backlight on - for Adafruit LCD backpack use
15
16 # set 16 character x 2 row LCD screen without rw pin, 4 bit mode
17 LCD = HD44780MCP.HD44780(MCP, 1, -1, 2, [3,4,5,6], rows = 2, characters = 16, mode = 0,
font = 0)
18
19 # set 20 character x 4 row LCD screen without rw pin, 4 bit mode
20 #LCD = HD44780MCP.HD44780(MCP, 1, -1, 2, [3,4,5,6], rows = 4, characters = 20, mode = 0,
font = 0)
21
22 # set 20 character x 4 row LCD screen without rw pin, 8 bit mode
23 #LCD = HD44780MCP.HD44780(MCP, 1, -1, 2, [3,4,5,6,8,9,10,11], rows = 2, characters = 16,
mode = 1, font = 0)
24
25 LCD.display_string("glue")
26 time.sleep(1)
27 LCD.display(False) # turn display off
28 time.sleep(2)
29 LCD.display() # turn display on
30 LCD.set_cursor(2,1) # move cursor to 2nd row, 1st position
31 LCD.display_string("stick")
32 time.sleep(2)
33
34 LCD.blink() # blink cursor position
35 time.sleep(2)
36 LCD.blink(False) # turn blinking off
37 time.sleep(2)
38
39 LCD.cursor(False) # turn cursor off
40 time.sleep(2)
41 LCD.cursor() # turn cursor on
42 time.sleep(2)
43
44 LCD.scroll_right(4, 0.5) # scoll display right with 0.5s delay between steps
45 time.sleep(1)
46 LCD.scroll_left(4, 0.5) # scoll display left with 0.5s delay between steps
47 time.sleep(1)
48 LCD.cursor_left(2) # move cursor left
49 time.sleep(2)
50 LCD.cursor_right(2) # move cursor right

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51 | time.sleep(2)
52 |
53 | LCD.clear_display()
54 |
55 | MCP.output(blPin, False)
```