St7789.py LCD 320 x 240

Initialize LCD

spi = SPI(1, baudrate=40000000, polarity=1, phase=1)

cs = Pin(9, Pin.OUT)

dc = Pin(13, Pin.OUT)

rst = Pin(12, Pin.OUT)

lcd = st7789.ST7789(spi, cs, dc, rst)

lcd.framebuf.fill(0) – fills screen with black or any color desired by changing the number

lcd.rotate(3) #rotation for proper viewing

Screen dimensions

SCREEN_WIDTH = 320

SCREEN_HEIGHT = 240

Colors

Lcd.COLORS[‘WHITE’]

"BLACK": 0x0000,

"WHITE": 0xFFFF,

"RED": 0x07E0,

"GREEN": 0x001F,

"BLUE": 0xF800,

"YELLOW": 0x07FF,

"CYAN": 0xF81F,

"PURPLE": 0x79E0,

"GRAY": 0x8410,

"DARK_GRAY": 0x4208,

Methods will include lcd. Lcd.draw_centered_text(10,10, “Hello”, 1, lcd.COLOR[“White”])

Text

lcd.framebuf.text(‘hello’, Width, Height,lcd.COLORS[‘YELLOW’])

lcd.draw_centered_text(y, text, scale, color):

lcd.draw_outlined_text(x, y, text, scale, color, outline_color):

lcd.draw_multiline_text(x, y, text, scale, color, max_width=None):

lcd.draw_big_text(x, y, text, scale, color):

example: lcd.draw_outlined_text(50,50, 'Scott', 2, lcd.COLORS['BLUE'], lcd.COLORS['WHITE'])

lcd.show()

Screen

lcd.rotate(rotation): # 0,1,2,3 orientation of entire screen

lcd.show()

Graphics

lcd.draw_pixel(x, y, color):

lcd.draw_line(x0, y0, x1, y1, color):

lcd.def draw_rect(x, y, w, h, color):

lcd.fill_rect(x, y, w, h, color):

lcd.draw_triangle(x0, y0, x1, y1, x2, y2, color):

lcd.fill_triangle(x0, y0, x1, y1, x2, y2, color):

lcd.draw_circle(x0, y0, r, color):

lcd.draw_sprite(x, y, sprite, scale, color):

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sprite = [‘1111,’
          ‘1001,’
          ‘1111,’]
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