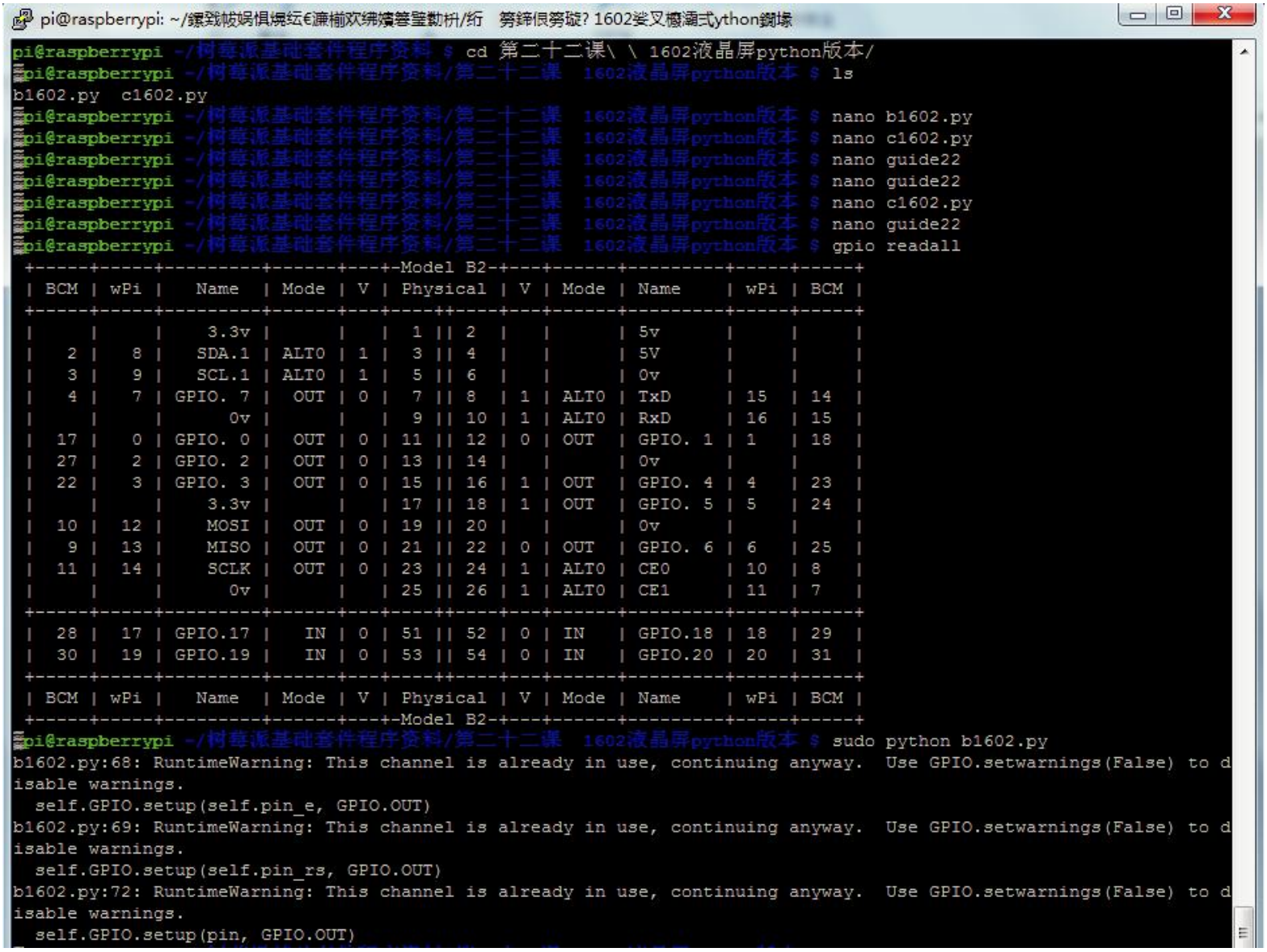
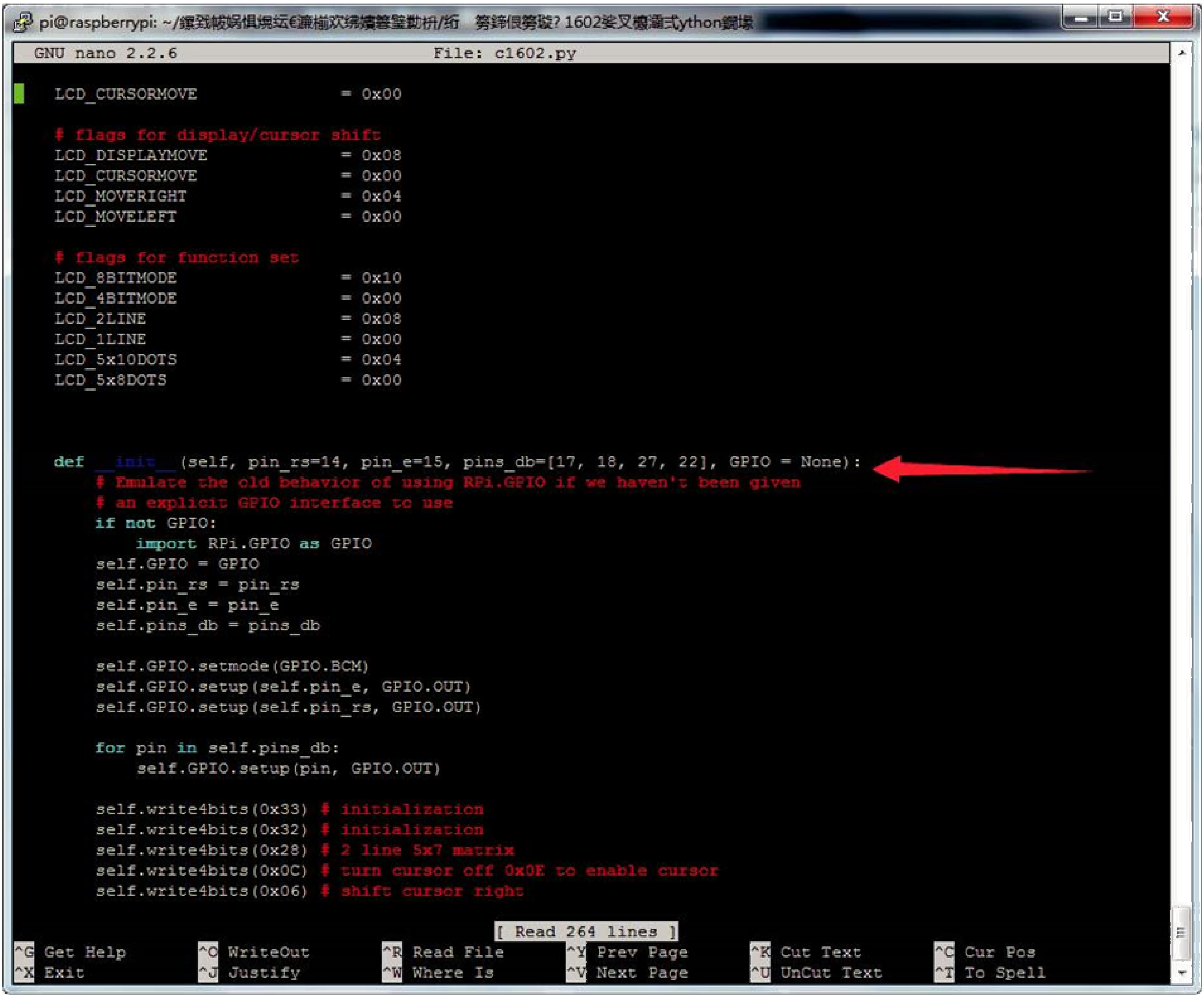
Project 22: 1602 LCD (python version)



Pic. 1



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GNU nano 2.2.6                         File: c1602.py

    LCD_CURSORMOVE                = 0x00

    # flags for display/cursor shift
    LCD_DISPLAYMOVE               = 0x08
    LCD_CURSORMOVE                = 0x00
    LCD_MOVERIGHT                 = 0x04
    LCD_MOVELEFT                  = 0x00

    # flags for function set
    LCD_8BITMODE                  = 0x10
    LCD_4BITMODE                  = 0x00
    LCD_2LINE                     = 0x08
    LCD_1LINE                     = 0x00
    LCD_5x10DOTS                  = 0x04
    LCD_5x8DOTS                   = 0x00



    def __init__(self, pin_rs=14, pin_e=15, pins_db=[17, 18, 27, 22], GPIO = None):
        # Emulate the old behavior of using RPi.GPIO if we haven't been given
        # an explicit GPIO interface to use
        if not GPIO:
            import RPi.GPIO as GPIO
        self.GPIO = GPIO
        self.pin_rs = pin_rs
        self.pin_e = pin_e
        self.pins_db = pins_db

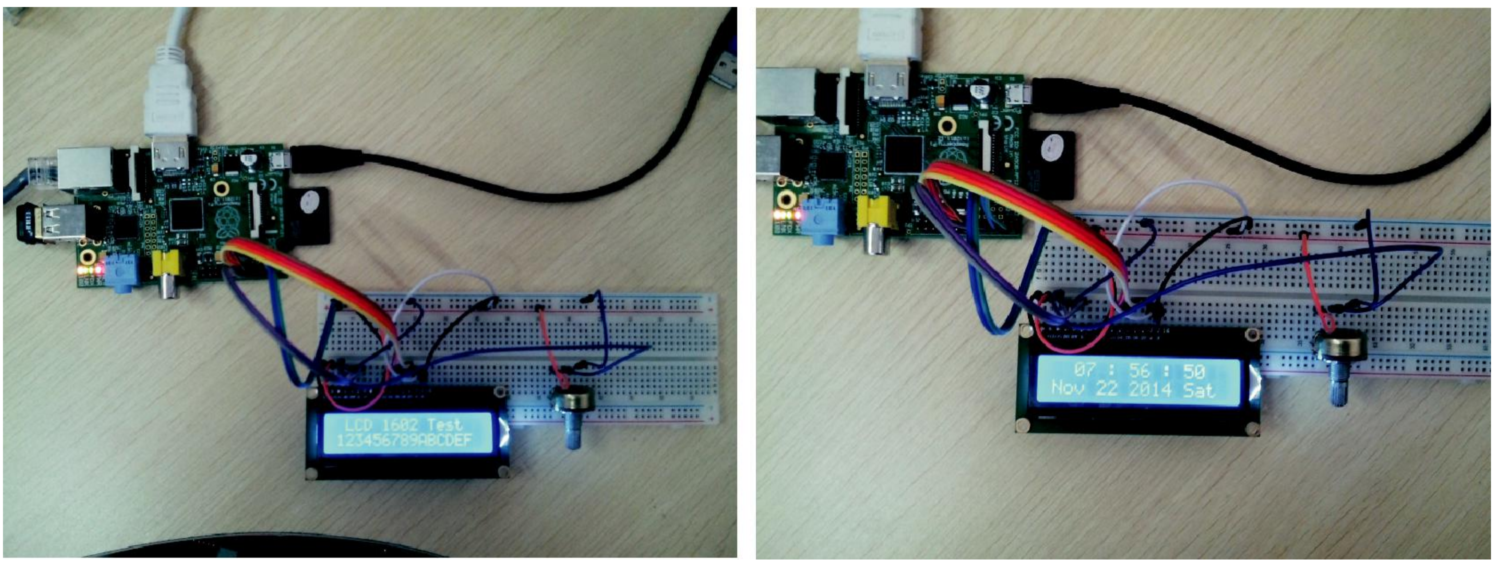
        self.GPIO.setmode(GPIO.BCM)
        self.GPIO.setup(self.pin_e, GPIO.OUT)
        self.GPIO.setup(self.pin_rs, GPIO.OUT)

        for pin in self.pins_db:
            self.GPIO.setup(pin, GPIO.OUT)

        self.write4bits(0x33) # initialization
        self.write4bits(0x32) # initialization
        self.write4bits(0x28) # 2 line 5x7 matrix
        self.write4bits(0x0C) # turn cursor off 0x0E to enable cursor
        self.write4bits(0x06) # shift cursor right

                                  [ Read 264 lines ]
^G Get Help    ^O WriteOut    ^R Read File    ^Y Prev Page    ^K Cut Text      ^C Cur Pos
^X Exit        ^J Justify     ^W Where Is     ^V Next Page    ^U UnCut Text    ^T To Spell
```

Pic. 2



Pic. 3