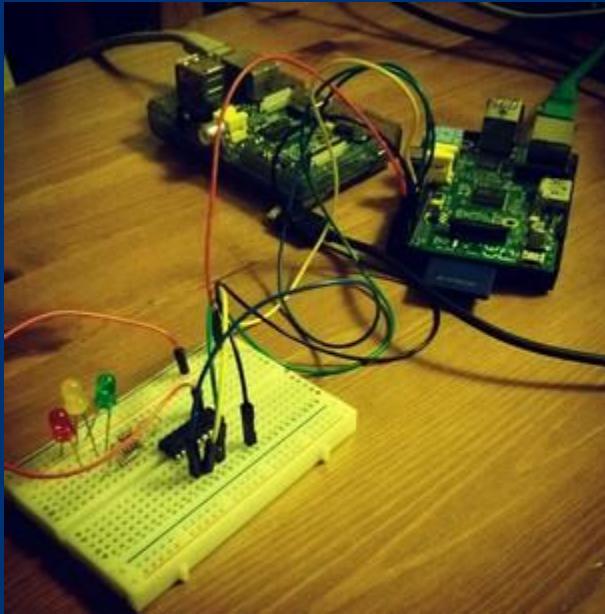
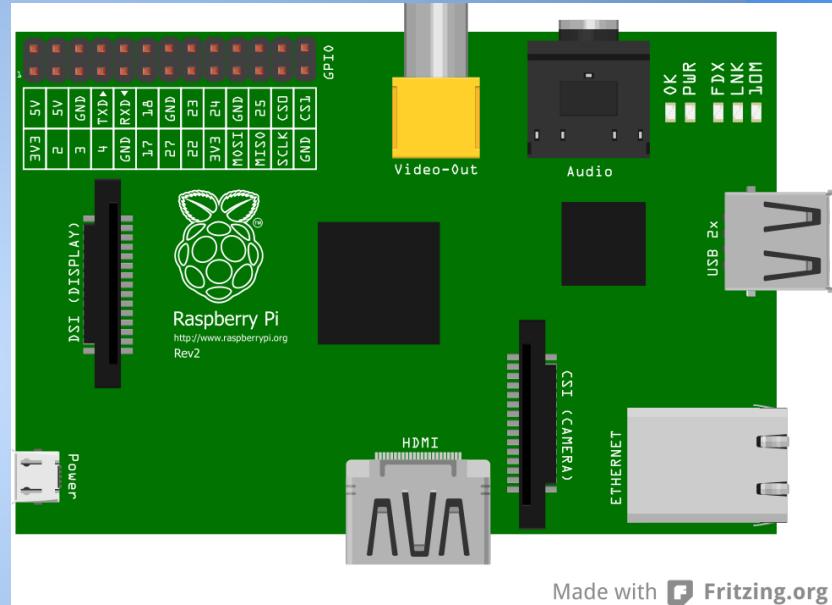


IWDEV 2014.1 - Pi Traffic Lights

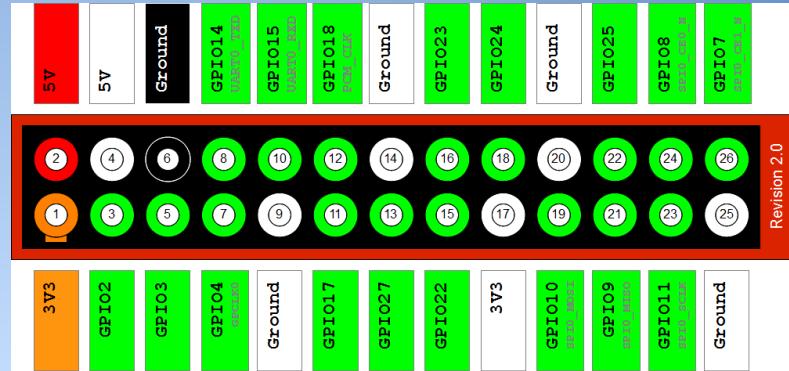
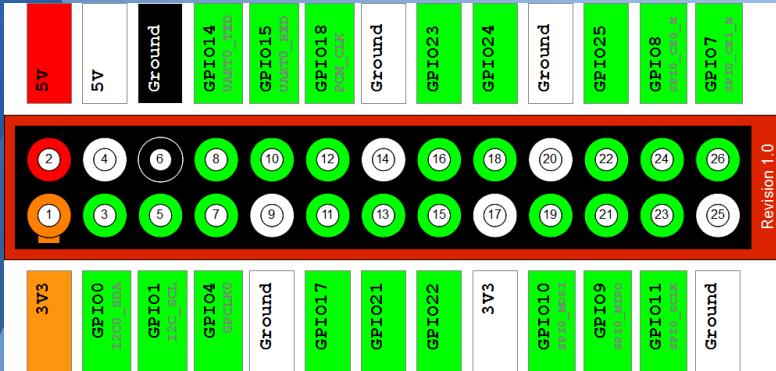


The GPIO port

- 5V & 3.3V Supply.
- 3.3V output/input (50mA).
- 17 configurable pins.
- provides a number of functions (I2C, PWM, Digital logic, Serial (pins 14 & 15).
- RPI.GPIO Python Library included in Raspbian Image.

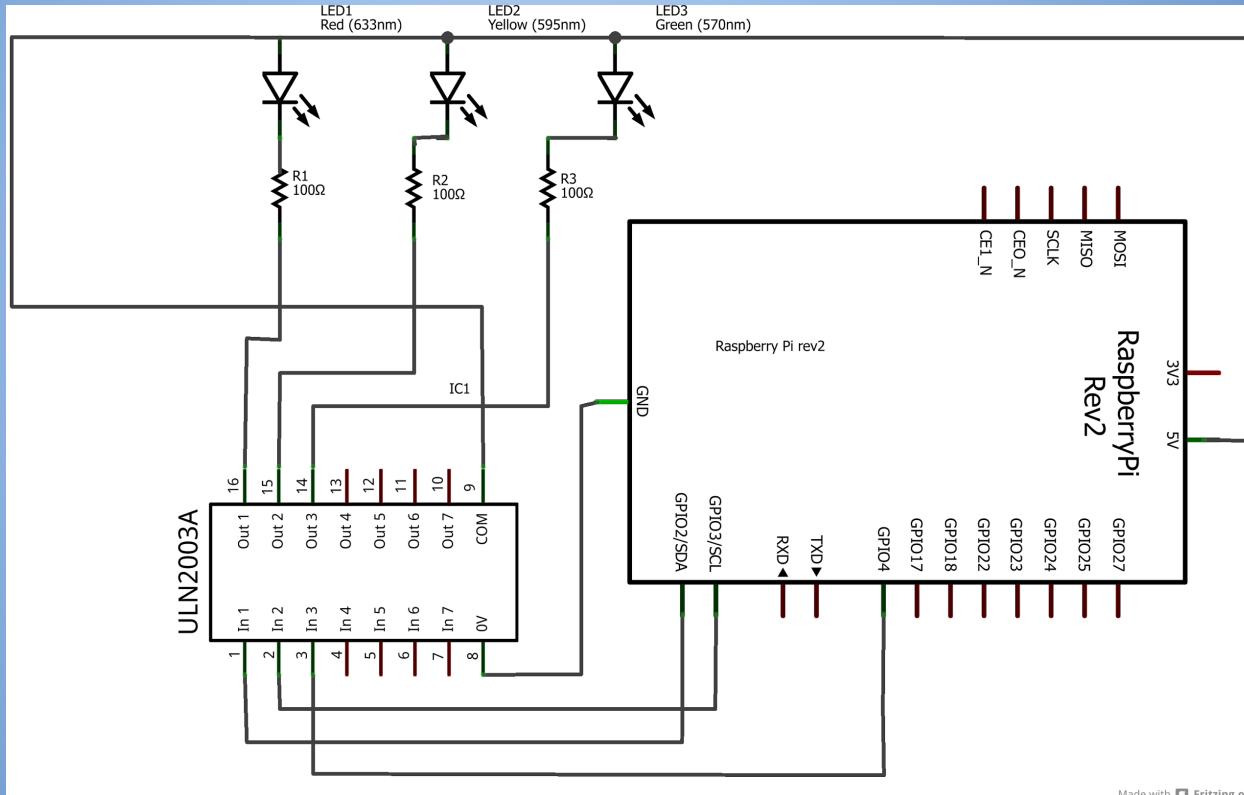


Made with Fritzing.org

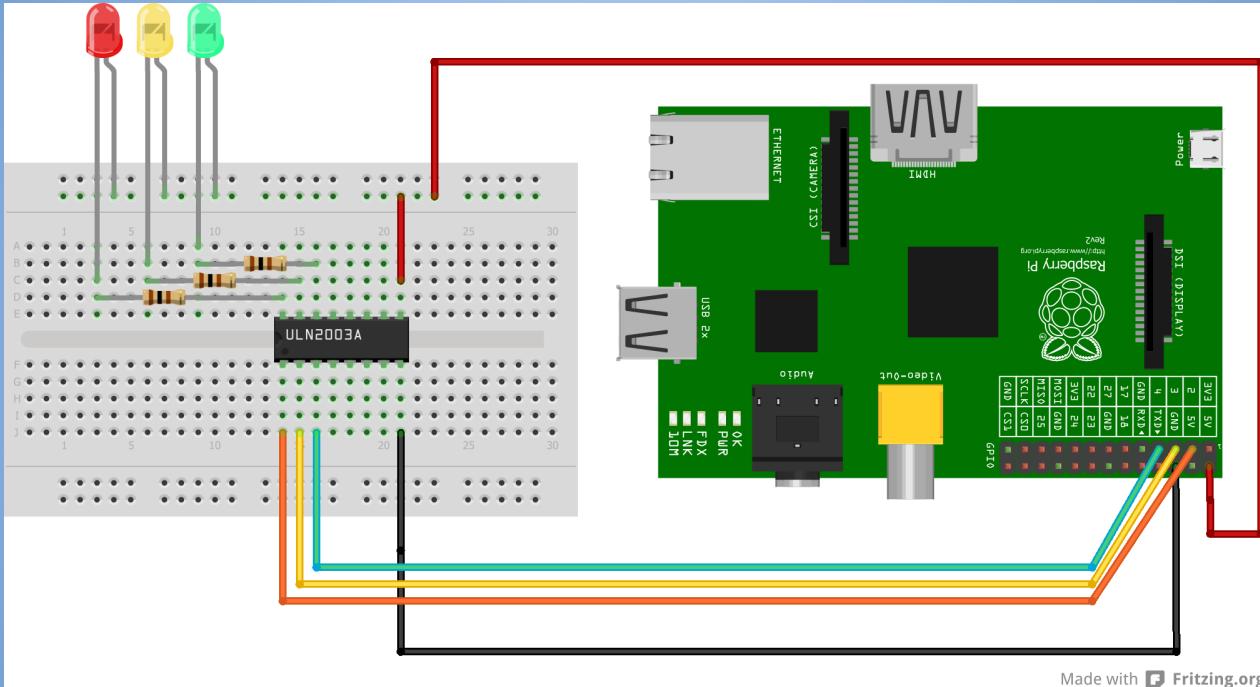


Different layouts for rev 1 (256MB) & 2 (512Mb) hardware.

Traffic Light Schematic



BreadBoard Layout



Made with Fritzing.org

gpio_led_base.py

```
# IWDEV Pi Blinking LED

import RPi.GPIO as GPIO
import time

# set GPIO Mode

GPIO.setmode(GPIO.BCM)

# set pin mode
GPIO.setup(02,GPIO.OUT)

# set initial pin state

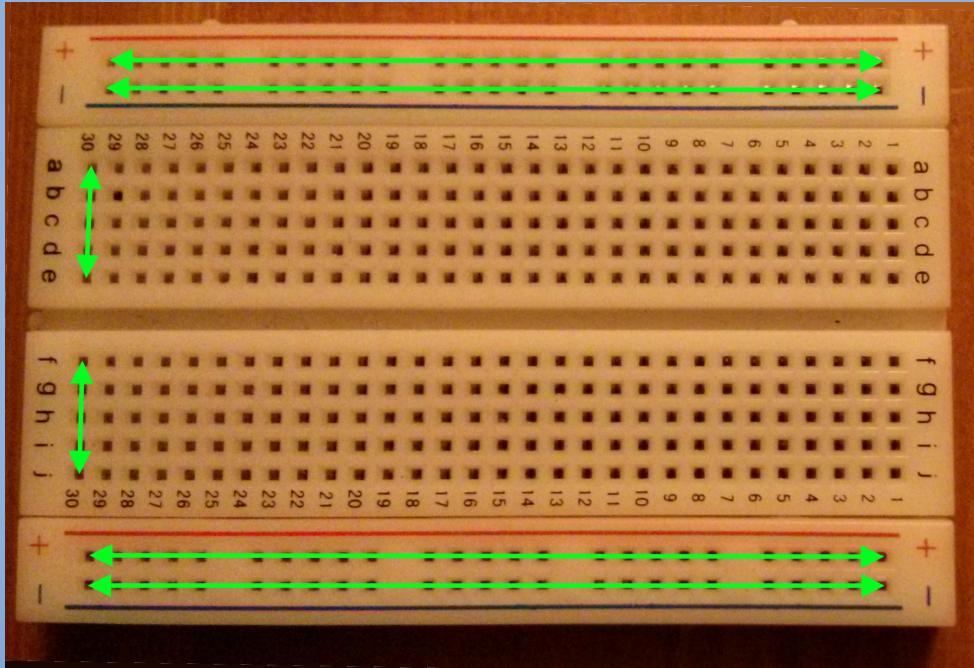
GPIO.output(02,False)|

# start a loop to control the lights.

while True:
    print "Red on"
    GPIO.output(02,True)
    time.sleep(1)
    print "Red off"
    GPIO.output(02,False)
    time.sleep(1)
```

Your Turn !

Prototype Board layout.



Useful Links:

https://github.com/qubecad/Pi_traffic_lights_IWDEV

<http://www.raspberrypi-spy.co.uk> (connector graphics)

<http://fritzing.org> (circuit layout software)