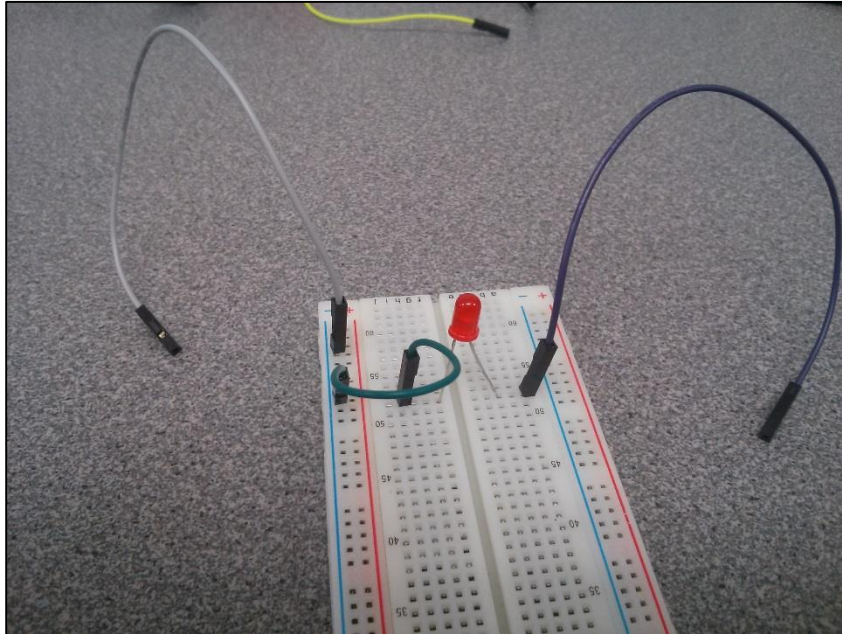
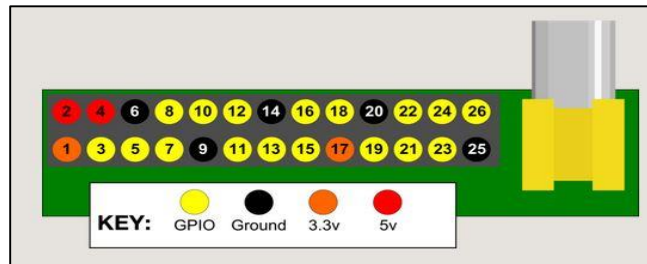


**The Python, the (GPIO) Pins and the Pi... – The RPi Initiative - bit2016 - @stevenpfloyd @katrina\_massey1**

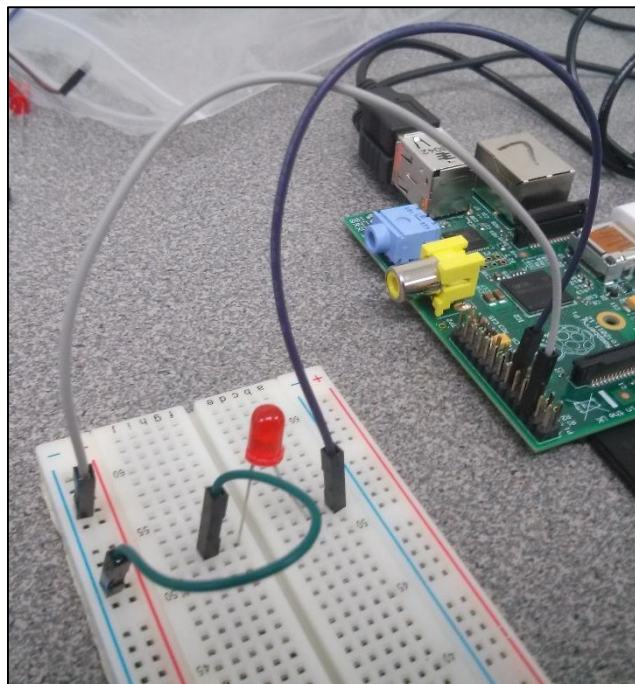
1) Setup the following circuit on the breadboard. Pay close attention to the long leg of the LED, this is the +ve end.



2) The General Purpose Input/Output Pins (GPIO) on the RPi are set up as follows:



Plug the +ve end of your circuit in to Pin 11 of the RPi and the -ve end of your circuit in to Pin 6.





- 3) Type the following code in to the Python 2 (IDLE) (note that anything after the hashtag # is a comment):

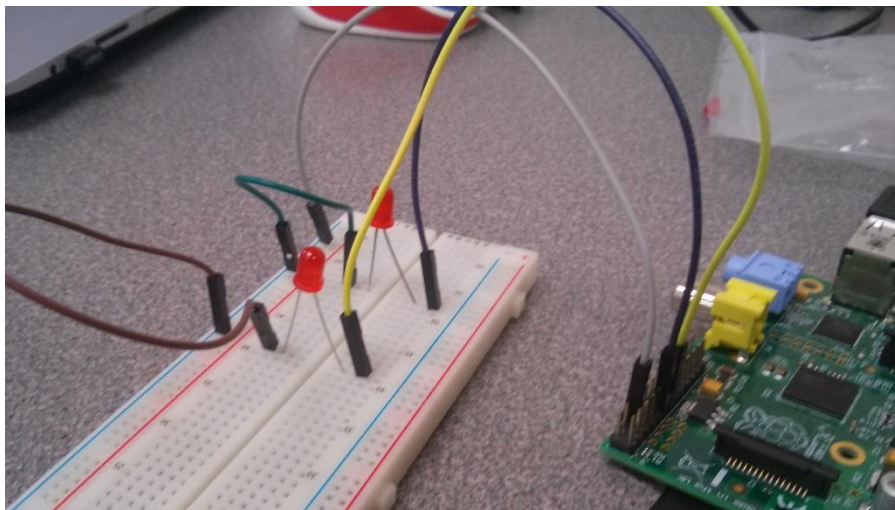
```
import RPi.GPIO as GPIO      #import the GPIO library
import time                  #import the time library

GPIO.setmode(GPIO.BOARD)    #setup the GPIO pins
GPIO.setup(11, GPIO.OUT)    #set pin to 11 to output

GPIO.output(11, True)       #power to pin 11
time.sleep(3)               #sleep 3 seconds
GPIO.output(11, False)     #no power to pin 11
time.sleep(3)               #sleep 3 seconds

GPIO.cleanup()              #wipe pins
```

- 4) Save your program and then click **Run... Run Module...**  
Your LED should turn on and off... AMAZING!?!?!?!
- 5) Add a second LED to the circuit (remember, LEDs have a +ve end) and connect the +ve wire to pin 13.



See if you can add the code necessary to light up both LEDs...

- 6) Add a third LED and code.  
See if you can now program a traffic light system, the delays will be important, think carefully...

