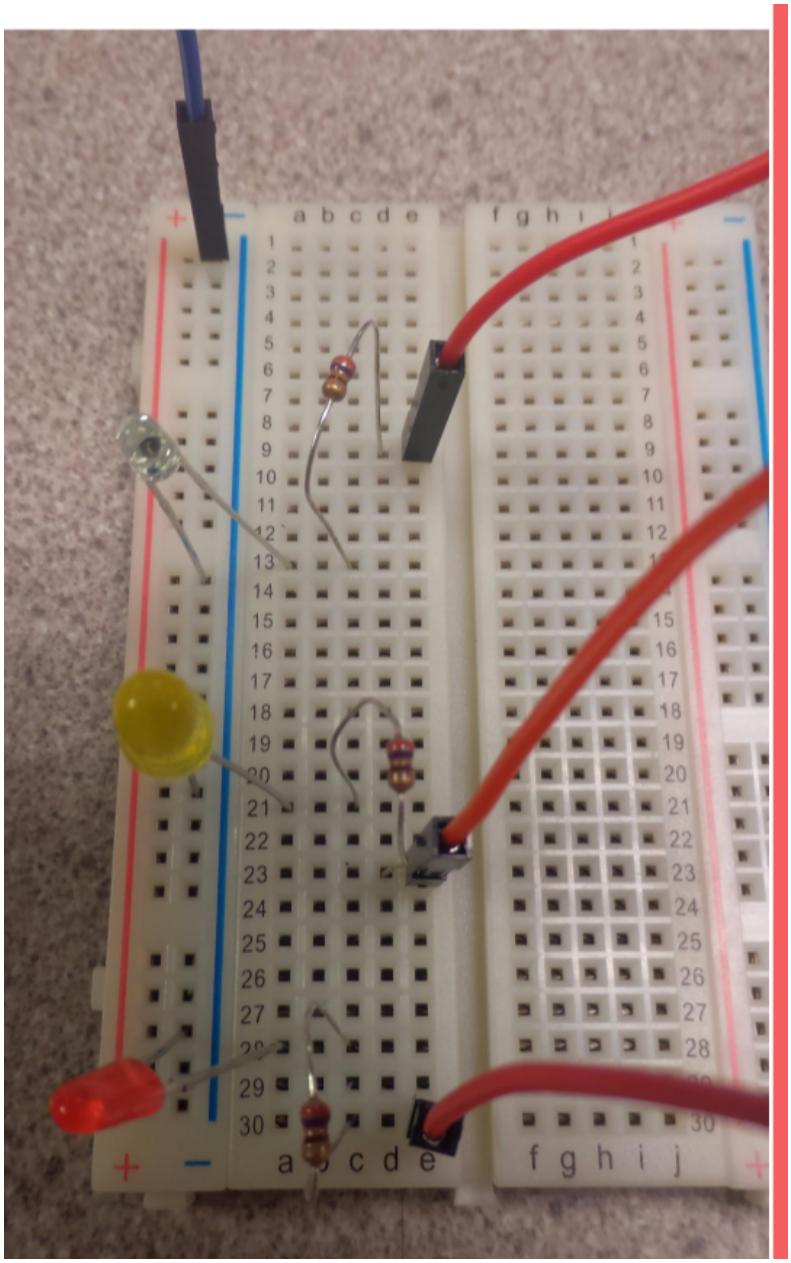
Your assignment for today is to create a stoplight.

Google “Raspberry Pi 3 GPIO” and find an image for reference. We are using the ORANGE GPIO pins. You will need to wire each LED to a **separate** GPIO pin so that you can control them individually. (I recommend GPIO18, GPIO23, and GPIO24 so that the example code works).

If you missed yesterday, **DO THAT FIRST!!!**

It will look something like this:



Things to keep in mind

1. Make sure you are using Raspberry Pi ***3*** GPIO. The third down on the right should be **GND** and the 6th down should be **GPIO18**.
2. You need to wire the positive of each LED to a separate GPIO pin
    a. I would recommend using GPIO 18, 23, and 24 for your stoplight
3. All of your circuits can use the same ground
4. Long leg of the LED goes to positive, short leg goes to negative

I would recommend using this starting code:

```
# import the libraries we will need
import RPi.GPIO as GPIO
import time

# set the GPIO pins to the BCM address method
GPIO.setmode(GPIO.BCM)
# don't print useless warnings
GPIO.setwarnings(False)

# Let's use some variables to keep track of the GPIO pin numbers
green = 18
yellow = 23
red = 24

# set the GPIO pins #18, 23 and 24 to be "output"
GPIO.setup(green ,GPIO.OUT) # green
GPIO.setup(yellow ,GPIO.OUT) # yellow
GPIO.setup(red ,GPIO.OUT) # red

for counter in range(0,10):
    print ("do something here!")
```

*** When you've got your stoplight working, make the LED's count from 0 to 7 in binary. Remember binary? ***

Once it counts to 7, have Python ask the user for a number between 1 and 7 and show them that number. Make sure to have a suitable error message if their input is invalid!