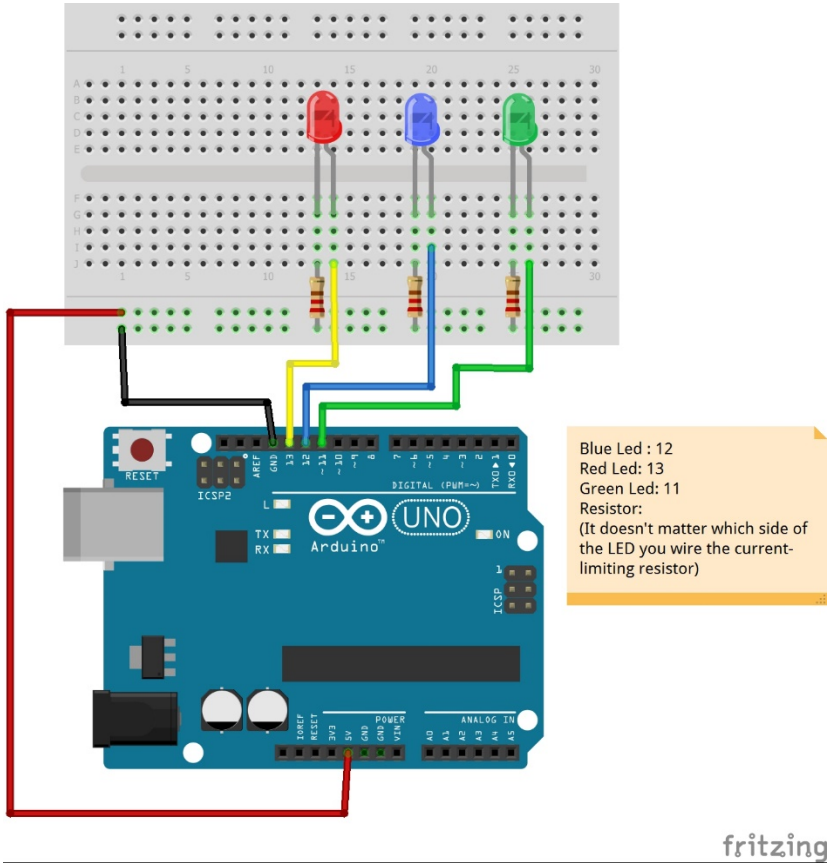
Blink LED

1. Parts Required

Arduino Uno	1x
USB A-to-B Cable	1x
Breadboard – Half Size	1x
Red, Green & Green LED	1x
Resistor	2
Jumper Wires	



2. Plugin Installed

- pyFirmata

3. Steps

- Connect 5V & GND from Arduino to the top and bottom rows (the rows indicated by the Red and blue and are usually the (+) and (-) power supply holes).
- Push the resistor to the short leg (-) of the LED.
- Push the other resistor leg into the ground (GND) pin on the board.
- Push the longer leg of the LEDs (+) into the #11, 12, 13 pin respectively using jumper wire.

```
# Method 1
Blink_Led.py
import pyfirmata
#replace "COM4" with the port as in Part D in the Arduino
setup instruction
board = pyfirmata.Arduino("COM6")
ledPins = [13,12,11]
while True:
    for x in range(0,3):
        print ("Lighting up led on pin: " % ledPins[x])
        board.digital[ledPins[x]].write(1)
        board.pass_time(1)
        board.digital[ledPins[x]].write(0)
        board.pass_time(1)
```

```
# Method 2.py
# First import the pyFirmata module,
import pyfirmata
#The create a board object using the
#firmata.Arduino()function
#replace "COM6" with the port as in the Arduino setup
instruction

board = pyfirmata.Arduino("COM6")

red_led = board.get_pin('d:13:o')
blue_led = board.get_pin('d:12:o')
green_led = board.get_pin('d:11:o')

#while True:
for x in range(0,5):
    print("Lighting up led",)
    red_led.write(1)
    board.pass_time(1)
    red_led.write(0)
    blue_led.write(1)
    board.pass_time(1)
    blue_led.write(0)
    green_led.write(1)
    board.pass_time(1)
    green_led.write(0)

board.exit()
print("End")
```