

### ASSIGNMENT 03

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Python code for blinking LED and traffic light for Raspberry pi

```
import RPi.GPIO as GPIO
```

```
import time
```

```
GPIO.setmode(GPIO.BOARD)
```

```
GPIO.setup(7, GPIO.OUT) #Green LED
```

```
GPIO.setup(11, GPIO.OUT)#Yellow LED
```

```
GPIO.setup(13, GPIO.OUT) #Red LED
```

```
GPIO.setup(15, GPIO.IN, pull_up_down=GPIO.PUD_UP)#Button
```

```
def turn_on(pin, seconds):
```

```
    GPIO.output (pin,GPIO.HIGH)
```

```
    time.sleep(seconds)
```

```
def turn_off (pin, seconds):
```

```
    GPIO.output (pin, GPIO.LOW)
```

```
    time.sleep(seconds)
```

```
try:
```

```
    while True:
```

```
        button_state=GPIO.input (15)
```

```
        if button_state== True:
```

```
            turn_on(13,2)
```

```
            turn_off(13,.1)
```

```
            turn_on(7,4)
```

```
            turn_off(7,.11)
```

```
            turn_on(11,1)turn_off(11,1)else:
```

```
        if button_state== False:
```

```
            GPIO.output (7,GPIO.LOW)
```

```
            GPIO.output(11,GPIO.LOW)
```

```
            GPIO.output (13,GPIO.LOW)
```

```
            time.sleep(.1)
```

```
except KeyboardInterrupt:
```

```
GPIO.cleanup()
```

```
print("Traffic Light Sequence Done")
```