

Assignment No: 3

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Write 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,.1)
    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")
```