

ASSIGNMENT -3

PYTHON CODE FOR BLINKING LED (Raspberry pi)

```
import RPi.GPIO as GPIO
import time

GPIO.setmode(GPIO.BCM)
GPIO.setwarnings(False)
GPIO.setup(18,GPIO.OUT)

print "LED on"

GPIO.output(18,GPIO.HIGH)

time.sleep(1)

print "LED off"

GPIO.output(18,GPIO.LOW)
```

PYTHON CODE FOR TRAFFIC LIGHT (Raspberry pi)

```
import RPi.GPIO as GPIO
import time

try:
def lightTraffic(led1, led2, led3, delay ):
GPIO.output(led1, 1)
time.sleep(delay)
GPIO.output(led1, 0)
GPIO.output(led2, 1)
time.sleep(delay)
GPIO.output(led2, 0)
GPIO.output(led3, 1)
time.sleep(delay)
```

```
GPIO.output(led3, 0)
GPIO.setmode(GPIO.BCM)
button = 19
GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)
ledGreen = 16
ledYellow = 12
ledRed = 23
GPIO.setup(ledGreen, GPIO.OUT)
GPIO.setup(ledYellow, GPIO.OUT)
GPIO.setup(ledRed, GPIO.OUT)
while True:
    input_state = GPIO.input(button)
    if input_state == False:
        print('Button Pressed')
        lightTraffic(ledGreen, ledYellow, ledRed, 1)
    else:
        GPIO.output(ledGreen, 0)
        GPIO.output(ledYellow, 0)
        GPIO.output(ledRed, 0)
except KeyboardInterrupt:
    print "You've exited the program"
finally:
    GPIO.cleanup()
```