

ASSIGNMENT -3

Write python code for blinking LED and Traffic lights for Raspberry pi.

Blinking LED:

```
import RPi.GPIO as GPIO
from time import sleep
GPIO.setwarnings(False)
GPIO.setmode(GPIO.BOARD)
GPIO.setup(10, GPIO.OUT, initial=GPIO.LOW)
while True:
    GPIO.output(10, GPIO.HIGH)
    sleep(1)
    GPIO.output(10, GPIO.LOW)
    sleep(1)
```

TRAFFIC LIGHTS:

```
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:
        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()
```