

ASSIGNMENT-3

PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI

For LED:

```
import RPi.GPIO as GPIO

from time import sleep

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup(8,GPIO.OUT,initial=GPIO.LOW)

while True:

    GPIO.output(8,GPIO.HIGH)

    sleep(1)

    GPIO.output(8,GPIO.LOW) sleep(1)
```

For Traffic Lights:

```
import Rpi.GPIO as GPIO

import time

import signal

import sys

GPIO.setmode(GPIO.BCM)

GPIO.setup(9,GPIO.OUT)

GPIO.setup(10,GPIO.OUT)

GPIO.setup(11,GPIO.OUT)

def allLightsOff(signal,framer):

    GPIO.output(9,False)
```

```
GPIO.output(10,False)
GPIO.output(11,False)
GPIO.cleanup()
sys.exit(0)
signal.signal(signal.SIGINT,allLightsOff)
while True:
    #Red
    GPIO.output(9,True)
    Time.sleep(3)
    #Red and amber
    GPIO.output(10,True)
    Time.sleep(1)
    #Green
    GPIO.output(9,False)
    GPIO.output(10,False)
    GPIO.output(11,True)
    Time.sleep(5)
    #Amber
    GPIO.output(11,False)
    GPIO.output(10, True)
    Time.sleep(2) #Amber off(red comes on at top of loop)
    GPIO.output(10,False)
```