

ASSIGNMENT-3

PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI

THIS IS A PYTHON CODE FOR BLINKING LIGHT:

```
import time

import RPi.GPIO as GPIO    ## Import GPIO library
GPIO.setmode(GPIO.BOARD)   ## Use board pin numbering
GPIO.setup(11, GPIO.OUT)   ## Setup GPIO Pin 11 to OUT

while True:

    GPIO.output(11,True)    ## Turn on Led
    time.sleep(1)           ## Wait for one second
    GPIO.output(11,False)   ## Turn off Led
    time.sleep(1)
```

FOR TRAFFIC LIGHT:

```
import RPi.GPIO as GPIO

import time
import signal
import sys

# Setup
GPIO.setmode(GPIO.BCM)
GPIO.setup(9, GPIO.OUT)
GPIO.setup(10, GPIO.OUT)
GPIO.setup(11, GPIO.OUT)
```

Turn off all lights when user ends demo

def allLightsOff(signal, frame):

GPIO.output(9, False)

GPIO.output(10, False)

GPIO.output(11, False)

GPIO.cleanup()

sys.exit(0)

signal.signal(signal.SIGINT, allLightsOff)

Loop forever

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)