

ASSIGNMENT 3

PYTHON CODE FOR BLINKING LED using raspberry pi

```
import RPi.GPIO as GPIO

import time

redLED = 4

GPIO.setmode(GPIO.BCM)

try:

    while True:

        GPIO.setup(redLED, GPIO.OUT)

        GPIO.output(redLED, True)

        time.sleep(0.5)

        GPIO.output(redLED, False)

        time.sleep(0.5)

finally:

    GPIO.cleanup()
```

PYTHON CODE FOR TRAFFIC LIGHT using raspberry pi.

```
IS_REGULAR = True

def regular():

    while True:

        if not GPIO.input(channel) and not IS_REGULAR:

            for col in [red, yel, gre]:

                col.on()

                sleep(2)

                col.off()

            if not IS_REGULAR: break

def callback(channel):

    global IS_REGULAR

    IS_REGULAR = False
```

```
print('Emergency vehicle detected')
```

```
red.off()
```

```
yel.off()
```

```
gre.on()
```

```
sleep(5)
```

```
gre.off()
```

```
IS_REGULAR = True
```