

ASSIGNMENT – 3
CODE FOR LED BLINK

```
import RPi.GPIO as GPIO # RPi.GPIO can be referred as GPIO from now

import time

ledPin = 22

def setup():

    GPIO.setmode(GPIO.BOARD)    # GPIO Numbering of Pins

    GPIO.setup(ledPin, GPIO.OUT)  # Set ledPin as output

    GPIO.output(ledPin, GPIO.LOW) #Set ledPin to LOW to turn Off the LED

def loop():

    while True:

        Print 'LED on'

        GPIO.output(ledPin, GPIO.HIGH)

        time.sleep(1.0)

        print 'LED off'

        GPIO.output(ledPin, GPIO.LOW)

        time.sleep(1.0)

def endprogram():

    GPIO.output(ledPin, GPIO.LOW)

    GPIO.cleanup()            #Releaseresources

if __name__ == '__main__':    #Programstartsfromhere

    setup()

    try:

        loop()

    except KeyboardInterrupt:  #When 'Ctrl+C' is pressed, the destroy() will be executed.

        endprogram()
```

CODE FOR TRAFFIC LIGHT

```
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep

buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25,8,7)

while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    buzzer.off()
```