

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()
```