

# SNS COLLEGE OF TECHNOLOGY

## SmartFarmer – IoT Enabled Smart Farming Application

### ASSIGNMENT 3:

Write python code for blinking LED and Traffic lights for Raspberry pi.

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#### CODE FOR BLINKING LED :

```
import RPi.GPIO as GPIO
import time

#assign numbering for the GPIO using BCM
GPIO.setmode(GPIO.BCM)

#assignn number for the GPIO using Board
#GPIO.setmode(GPIO.BOARD)

cnt = 0

MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds
RED_LED = 4

GPIO.setup(RED_LED, GPIO.OUT)

while True:
    if cnt == 0 :
        GPIO.output(RED_LED, False)
        cnt = 1
    else:
        GPIO.output(RED_LED, True)
```

```
cnt = 0
time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

### **CODE FOR TRAFFIC LIGHTS:**

```
from gpiozero import LED
red = LED(22)
red.blink()
```

```
from gpiozero import LED
red = LED(22)
amber = LED(27)
green = LED(17)
```

```
red.blink(1, 1)
amber.blink(2, 2)
green.blink(3, 3)
```

```
from gpiozero import LED
from time import sleep
```

```
red = LED(22)
amber = LED(27)
green = LED(17)
```

```
red.on()
```

sleep(1)  
amber.on()  
sleep(1)  
green.on()  
sleep(1)  
red.on()  
sleep(1)  
amber.on()  
sleep(1)  
green.on()  
sleep(1)  
red.off()  
sleep(1)  
amber.off()  
sleep(1)  
green.off()

while True:  
    red.on()  
    sleep(1)  
    amber.on()  
    sleep(1)  
    green.on()  
    sleep(1)  
    red.off()  
    sleep(1)

amber.off()

sleep(1)

green.off()