

# 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:

    ifcnt == 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()