

ASSIGNMENT -3

IOT BASED SMART CROP PROTECTON SYSTEM

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

1.python code for blinking LED for Raspberry pi

```
import RPi.GPIO as GPIO
import time

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

#assingn 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()
```

2.Python code for Traffic lights for Raspberry pi.

```
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()
```