

# PROJECT DEVELOPMENT DELIVERY OF SPRINT-1

<b>TEAM ID</b>	<b>PNT2022TMID54425</b>
<b>PROJECT NAME</b>	<b>SMART SOLUTION FORRAILWAYS</b>

## LED BLINKING

```
import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BCM)

cnt = 0

MAIL_CHECK_FREQ = 1

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 FOR RASPBERRY PI:

```
import RPi.GPIO as GPIO

import time

try:
    def lightTraffic(led1, led2, led3, delay ):
        GPIO.output(led1, 1)
        time.sleep(delay)
        GPIO.output(led1, 0)
        GPIO.output(led2, 1)
        time.sleep(delay)
        GPIO.output(led2, 0)
        GPIO.output(led3, 1)
        time.sleep(delay)
        GPIO.output(led3, 0)
        GPIO.setmode(GPIO.BCM)

    button = 19

    GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)

    ledGreen = 16
    ledYellow = 12
    ledRed = 23

    GPIO.setup(ledGreen, GPIO.OUT)
    GPIO.setup(ledYellow, GPIO.OUT)
    GPIO.setup(ledRed, GPIO.OUT)

    while True:
```

```
input_state = GPIO.input(button)

if input_state == False:
    print('Button Pressed')
    lightTraffic(ledGreen, ledYellow, ledRed, 1)
else:
    GPIO.output(ledGreen, 0)
    GPIO.output(ledYellow, 0)
    GPIO.output(ledRed, 0)
except KeyboardInterrupt:
    print ("You've exited the program")
finally:
    GPIO.cleanup()
```