

ASSIGNMENT 3

(PYTHON PROGRAMMING FOR RASPBERRY PI)

ASSIGNMENT DATE	6 TH OCTOBER 2022
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MAXIMUM MARKS	2 MARKS

QUESTION:

Write a python code for blinking LED and traffic lights for Raspberry pi.

PYTHON CODE:

1)BLINKING OF LED:

```
from gpiozero import Button, LED
led = LED(25)
while True:
    button.wait_for_press()
    led.on()
    button.wait_for_release()
    led.off()
while True:
    led.on()
    button.wait_for_press()
    led.off()
    button.wait_for_release()
while True:
    led.blink(2,2)
    button.wait_for_press()
    led.off()
    button.wait_for_release()
```

2) TRAFFIC LIGHTS:

```
from gpiozero import Button, TrafficLights
led = LED(25)
lights = TrafficLights(25, 8, 7)
while True:
    button.wait_for_press()
    lights.on()
    button.wait_for_release()
    lights.off()
    while True:
        lights.blink()
        button.wait_for_press()
        lights.off()
        button.wait_for_release()
from gpiozero import Button, TrafficLights, Buzzer
buzzer = Buzzer(15)
while True:
    lights.on()
    buzzer.off()
    button.wait_for_press()
    lights.off()
    buzzer.on()
    button.wait_for_release()
    while True:
        lights.blink()
        buzzer.beep()
        button.wait_for_press()
        lights.off()
        buzzer.off()
        button.wait_for_release()
from time import sleep
while True:
```

```
lights.green.on()  
sleep(1)  
lights.amber.on()  
sleep(1)  
lights.red.on()  
sleep(1)  
lights.off()  
while True:  
    button.wait_for_press()  
    lights.green.on()  
    sleep(1)  
    lights.amber.on()  
    sleep(1)  
    lights.red.on()  
    sleep(1)  
    lights.off()
```