

ASSIGNMENT-3

AIM:

To write a python code for blinking LED and Traffic Lights for Raspberry Pi.

SOFTWARE USED:

Python IDLE 3.10.7 (64 bit)

PROGRAM:

```
import turtle
import time

wn=turtle.getscreen() wn.title("Traffic Light") wn.bgcolor("black") pen=turtle.Turtle()
pen.color("Yellow")
pen.width(4)
pen.hideturtle()
pen.penup()
pen.goto(-30,60)
pen.pendown()
pen.fd(60)
pen.rt(90)
pen.fd(120)
pen.rt(90)
pen.fd(60)
pen.rt(90)
pen.fd(120)

red_light=turtle.Turtle()
red_light.shape("circle")
red_light.color("grey")
red_light.penup()
red_light.goto(0,40)

yellow_light=turtle.Turtle() yellow_light.shape("circle") yellow_light.color("grey")
yellow_light.penup()
yellow_light.goto(0,0)

green_light=turtle.Turtle() green_light.shape("circle") green_light.color("grey")
```

```
green_light.penup()
green_light.goto(0,-40)
while True:
    yellow_light.color("grey")
    red_light.color("red")
    print("Red Light Blink")
    print("Blink")
    time.sleep(2)
    print("Blink")

    red_light.color("grey")
    green_light.color("green")
    print("Green Light Blink")
    print("Blink")
    time.sleep(3)
    print("Blink")

    green_light.color("grey")
    yellow_light.color("yellow")
    print("Yellow Light Blink")
    print("Blink")
    time.sleep(2)
    print("Blink")

wn.mainloop()
```

SIMULATION OUTPUT:

```
source_3.py - C:\Users\Admin\Desktop\source_3.py (3.10.7)
File Edit Format Run Options Window Help
import turtle
import time

wn=turtle.getscreen()
wn.title("Traffic Light")
wn.bgcolor("black")

pen=turtle.Turtle()
pen.color("yellow")
pen.width(4)
pen.hideturtle()
pen.penup()
pen.goto(-20,60)
pen.pendown()
pen.fd(60)
pen.rt(90)
pen.fd(120)
pen.rt(90)
pen.fd(60)
pen.rt(90)
pen.fd(120)

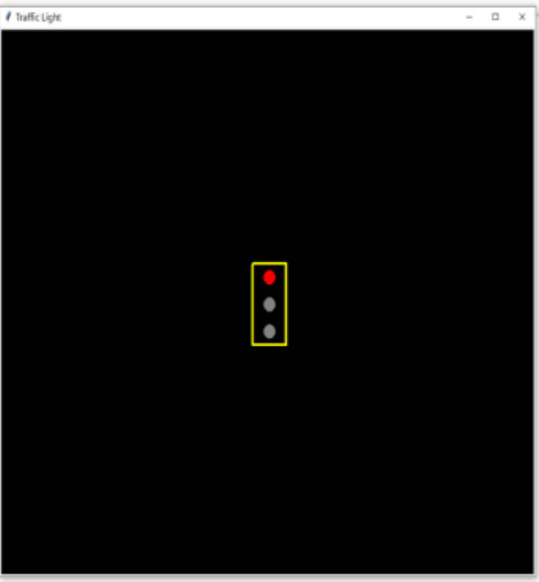
red_light=turtle.Turtle()
red_light.shape("circle")
red_light.color("grey")
red_light.penup()
red_light.goto(0,40)

yellow_light=turtle.Turtle()
yellow_light.shape("circle")
yellow_light.color("grey")
yellow_light.penup()
yellow_light.goto(0,0)

green_light=turtle.Turtle()
green_light.shape("circle")
green_light.color("grey")
green_light.penup()
green_light.goto(0,-60)

while True:
    yellow_light.color("grey")
    red_light.color("red")
    print("Red Light Blink")
    print("Blink")
    time.sleep(2)
    print("Blink")

    red_light.color("grey")
    green_light.color("green")
```



```
Python 3.10.7 (tags/v3.10.7:6cc0b13, Sep 5 2022,
[MSC v.1933 64 bit (AMD64)]) on win32
Type "help", "copyright", "credits" or "license()"
>>>
----- RESTART: C:\Users\Admin\Desktop
.py -----
Red Light Blink
Blink
Blink
Green Light Blink
Blink
Yellow Light Blink
Blink
Red Light Blink
Blink
Green Light Blink
Blink
Yellow Light Blink
Blink
Red Light Blink
Blink
Green Light Blink
Blink
Yellow Light Blink
Blink
Red Light Blink
Blink
```

RESULT:

Thus, I have successfully compiled a python code for blinking LED and Traffic Lights for Raspberry Pi.