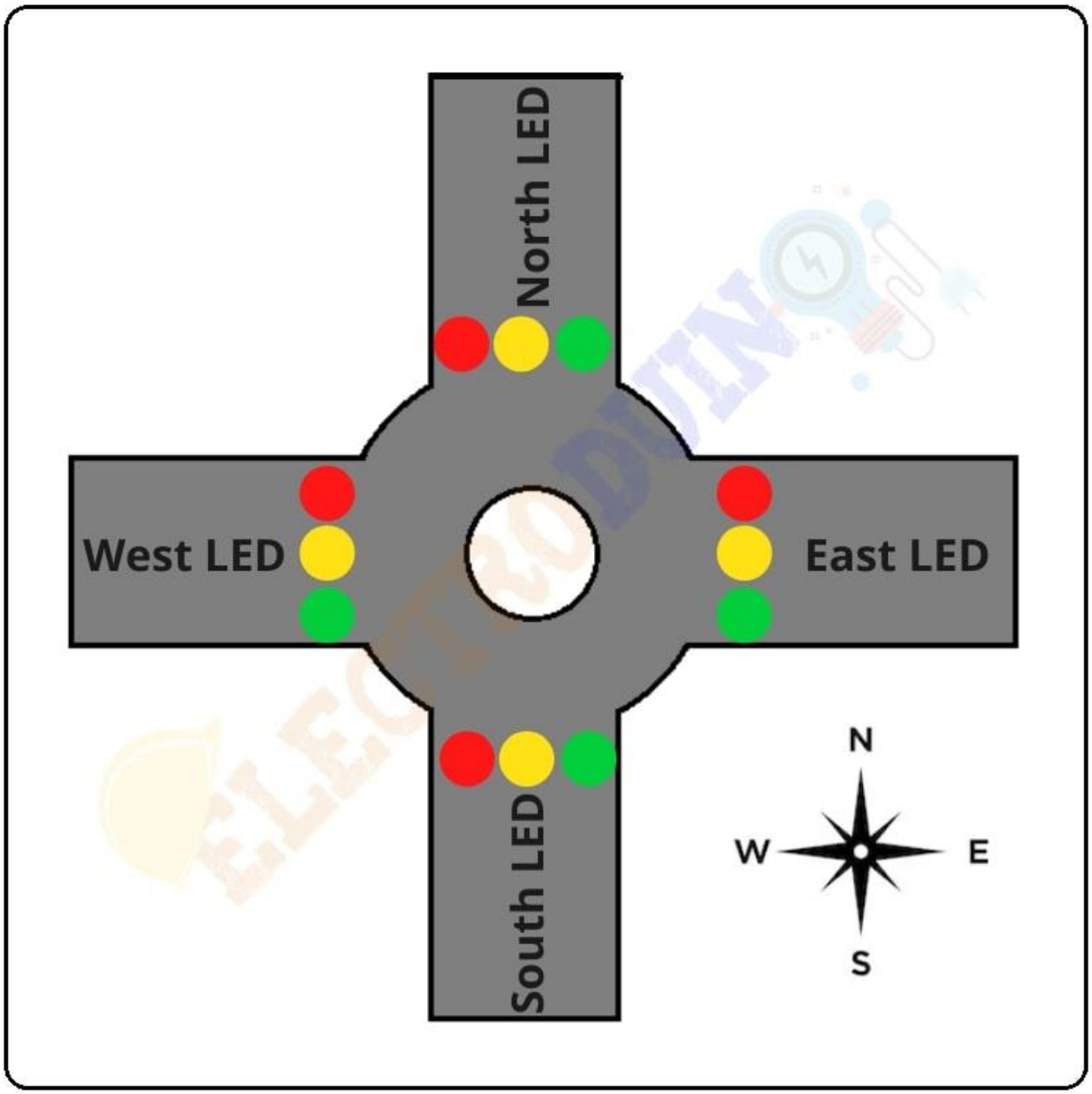
ASSIGNMENT – 3

TRAFFIC LIGHT CONTROLLER USING RASPBERRY PI

NAME: Y.Godbin James

Roll : 19BEC158



**PROGRAM**

```
import RPi.GPIO as GPIO
import time

south = (11,13,15)
north = (19,21,23)
east = (27,29,31)
west = (33,35,37)
 button = 19
def init():
        GPIO.setmode(GPIO.BOARD)
        GPIO.setup(south, GPIO.out)
        GPIO.setup(north, GPIO.out)
        GPIO.setup(east, GPIO.out)
        GPIO.setup(west, GPIO.out)
        GPIO.setup(button, GPIO.IN, pull_up_down=GPIO.PUD_UP)

def start():
        #green in south and yellow in west
        GPIO.output(south, (0,0,1))
        GPIO.output(west, (0,1,0))
        GPIO.output(north, (1,0,0))
        GPIO.output(east, (1,0,0))
        sleep(1)

        #green in west and yellow in north
        GPIO.output(south, (1,0,0))
        GPIO.output(west, (0,0,1))
```

```
        GPIO.output(north, (0,1,0))
        GPIO.output(east, (1,0,0))
        sleep(1)

        #green in north and yellow in east
        GPIO.output(south, (1,0,0))
        GPIO.output(west, (1,0,0))
        GPIO.output(north, (0,0,1))
        GPIO.output(east, (0,1,0))
        sleep(1)

        #green in easta and yellow in south
        GPIO.output(south, (0,1,0))
        GPIO.output(west, (1,0,0))
        GPIO.output(north, (1,0,0))
        GPIO.output(east, (0,0,1))
        sleep(1)

init()
while True:
        input_state = GPIO.input(button)
    if input_state == False:
        print('Button Pressed')
                start()
        else:
                print("Not yet started")
```