Assignment 3

PythonProgramming

AssignmentDate	24 November 2022
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MaximumMarks	2Marks

Question

WritepythoncodeforblinkingLEDandTrafficlightsforRaspberrypi.

Traffic Light

```
importRPi.GPIOas

GPIOimporttime

try:
    deflightTraffic(led1,led2,led3,delay):GPIO.outp
     ut(led1,1)
    time.sleep(delay)GPIO.out
   put(led1,0)GPIO.output(led
   2,1)time.sleep(delay)GPIO.
   output(led2,0)GPIO.output(
   led3,1)time.sleep(delay)GPI
   O.output(led3,0)
GPIO.setmode(GPIO.BCM)but
 ton=19
GPIO.setup(button,GPIO.IN,pull_updown=GPIO.P
UD_UP)
 ledGreen
=16ledYellow
=12ledRed=2
3
GPIO.setup(ledGreen,GPIO.OUT)
```

```
    GPIO.setup(ledYellow,GPIO.OUT)GPIO.setup(le
    dRed,GPIO.OUT)

     WhileTrue:

        input_state=GPIO.input(button)ifi
            nput_state==False:

        print('Button Pressed')
        lightTraffic(ledGreen,bledYellow,ledRed,1)

        else:GPIO.output(le

dGreen,0)GPIO.output(le

dYellow,0)

GPIO.output(ledRed,0)
exceptKeyboardInterrupt:

Print "You've exited the

program"finally:

GPIO.cleanup()
```

Blinking: LED

```
ImportRPi.GPIOasGPIO#ImportRaspberryPiGPIOlibrary


From time import sleep # Import the sleep function from the time


moduleGPIO.setwarnings(False) # Ignore warning for


nowGPIO.setmode(GPIO.BOARD)#Usephysicalpinnumbering


GPIO.setup(8,GPIO.OUT,initial=GPIO.LOW)#Setpin8
tobeanoutputpiandsetinitialvaluetolow(off)


While True: # Run


foreverGPIO.output(8,GPIO.HIGH)#Tu


rnon


sleep(1)# Sleep for 1 second GPIO.output(8, GPIO.LOW) # Turn


offsleep(1)#Sleepfor1second
```