**Assignment -1**

Python Programming

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| Assignment Date | 20 September 2022 |
| Student Name | BHARATHKUMAR S |
| Student Roll Number | PNT2022TMID02412 |
| Maximum Marks | 2 Marks |

**Question-1:**

**#define relay4 3**

**int ldr1,relay1=11,ldr2,relay2=12,relay3=10;**

**int cm = 0;**

**long readUltrasonicDistance(int triggerPin, int echoPin)**

**{**

**pinMode(triggerPin, OUTPUT);**

**digitalWrite(triggerPin, LOW);**

**delayMicroseconds(2);**

**digitalWrite(triggerPin, HIGH);**

**delayMicroseconds(10);**

**digitalWrite(triggerPin, LOW);**

**pinMode(echoPin, INPUT);**

**return pulseIn(echoPin, HIGH);**

**}**

**void setup() {**

**Serial.begin(9600);**

**pinMode(A1,INPUT);**

**pinMode(relay1,OUTPUT); pinMode(A2,INPUT);**

**pinMode(relay2,OUTPUT);**

**pinMode(relay3,OUTPUT);**

**pinMode(relay4,OUTPUT);**

**digitalWrite(relay1,LOW);**

**digitalWrite(relay2,LOW);**

**}**

**void loop() {**

**ldr1=analogRead(A1);**

**Serial.print("ldr1:");**

**Serial.println(ldr1);**

**ldr2=analogRead(A2);**

**Serial.print("ldr2:");**

**Serial.println(ldr2);**

**if(ldr1>750&&ldr2>750)**

**{ digitalWrite(relay1,LOW);**

**digitalWrite(relay2,LOW);**

**}**

**if(ldr1<700&&ldr2<700)**

**{**

**digitalWrite(relay2,HIGH);**

**digitalWrite(relay1,HIGH);**

**}**

**delay(500);**

**int range;**

**cm = 0.01723 \* readUltrasonicDistance(6, 7);**

**Serial.print(cm);**

**Serial.println("cm"); //range=200;**

**//int height = range-cm;**

**//Serial.print("HIGHT:");**

**//Serial.println(height);**

**if(cm<10)**

**digitalWrite(relay4,HIGH);**

**else if(cm>25)**

**digitalWrite(relay4,LOW);**

**delay(100); // Wait for 100 millisecond(s)**

**}**

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