Assignment -1

Assignment Date	15 September 2022
Student Name	Mr. S. Shamkumar
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Maximum Marks	2 Marks

Question:

Make a Home automation in Tinkercad with sensors (Minimum 3 Sensors)?

Code:(C++)

```cpp
#include <Servo.h>

const int ldrPin = A0;

const int tmpPin = A1;

const int motor = 10;

const int light = 9;

const int light2 = 7;

const int led = 4;


int rip = 0;

int servo = 0;

Servo servo_11;


int i;

void setup() {

pinMode(ldrPin, INPUT);

pinMode(tmpPin, INPUT);

pinMode(motor, OUTPUT);

pinMode(light, OUTPUT);

pinMode(light2, OUTPUT);

pinMode(led, OUTPUT);

Serial.begin(9600);
```

```arduino
  pinMode(12, INPUT);

  pinMode(11, INPUT);

  servo_11.attach(11, 500, 2500);

}

void loop() {

int ldrStatus = analogRead(ldrPin);

int tmpStatus = analogRead(tmpPin);

Serial.print("LDR");

Serial.print("TMP");

Serial.println(ldrStatus);

Serial.println(tmpStatus);


  Serial.println(rip);

  rip = digitalRead(12);

  servo = digitalRead(11);

  if (rip == 1) {

    servo_11.write(180);

  } else {

    servo_11.write(0);

  }

 if (-40 + 0.488155 * (tmpStatus - 20) > 28 ) {

    analogWrite(motor,255);

  } else {

    analogWrite(motor,0);

  }

if (ldrStatus> 610 && ldrStatus<=679 ) {

analogWrite(light,0);

analogWrite(light2,0);

for(i=0;i<=12;i++)

  {

analogWrite(led,255);
```

```
  delay(500);

 analogWrite(led,0);

 }

}

else if(ldrStatus> 544 && ldrStatus<=610 ){

analogWrite(light,255);

analogWrite(light2,0);

analogWrite(led,0);

}

else if(ldrStatus> 409 && ldrStatus<=544 ){

analogWrite(light,255);

analogWrite(light2,0);

analogWrite(led,0);

}

else if(ldrStatus> 274 && ldrStatus<=409){

analogWrite(light,255);

analogWrite(light2,0);

analogWrite(led,0);

}

else if(ldrStatus>=139 && ldrStatus<=274 ){

analogWrite(light,255);

analogWrite(light2,0);

analogWrite(led,0);

}

else if(ldrStatus >= 6 && ldrStatus<=139 ){

analogWrite(light,255);

analogWrite(light2,255);

analogWrite(led,0);

delay(1000);

}

}
```

Circuit Diagram: