Assignment -1

Tinkercard Circuit

Assignment Date	15 September 2022
Student Name	Mr. Danush Gupta V K
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Maximum Marks	2 Marks

Question:

Build a smart home in tinkercard.

Solution:

Source Code :

```
int t=2;
int e=3;

void setup()
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(12,OUTPUT);
}

void loop()
{
  //ultrasonic sensor
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(10);
  digitalWrite(t,LOW);
  float dur=pulseIn(e,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance is: ");
  Serial.println(dis);

    //LED ON
  if(dis>=60)//(in terms of centimeter)
  {
```

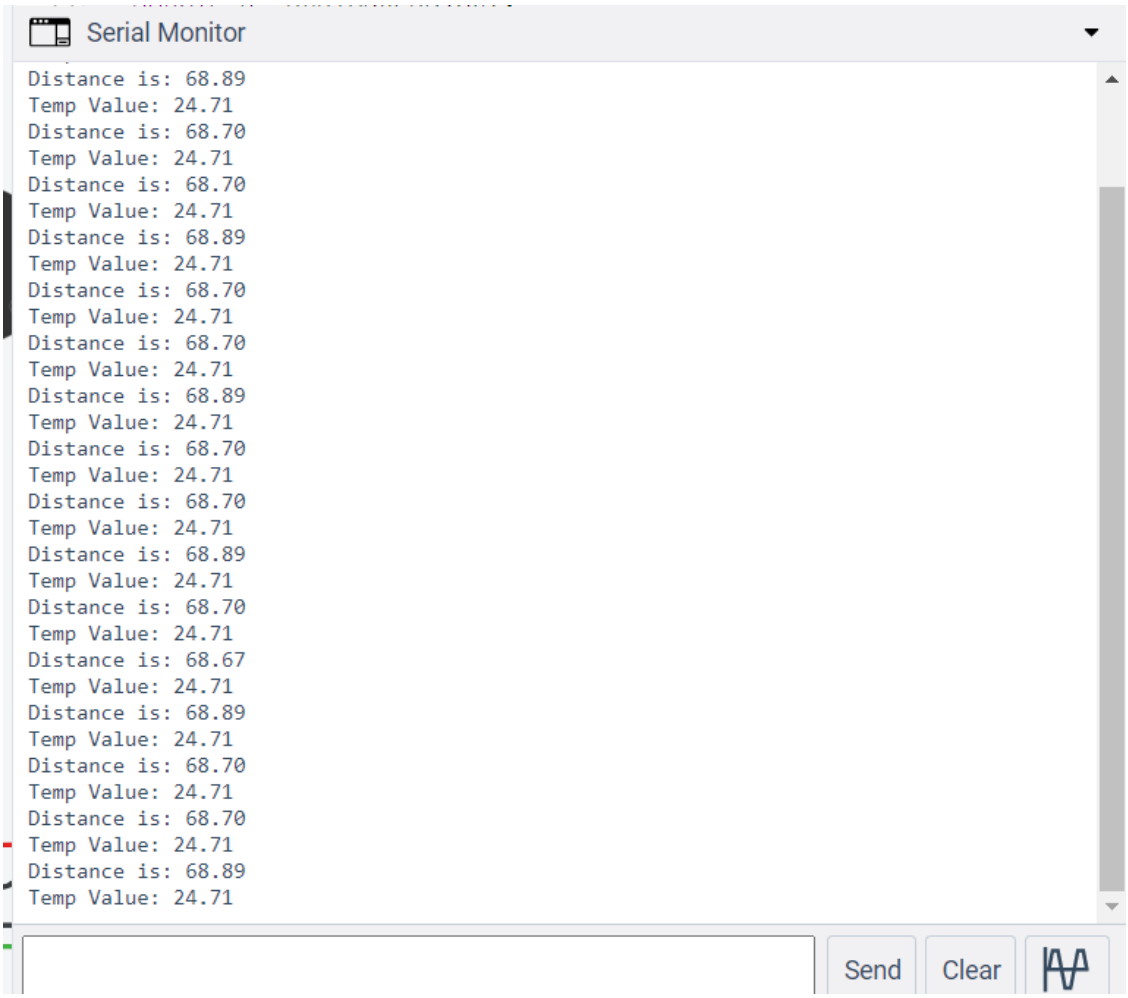
```
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
}

//Buzzer For ultrasonic Sensor
if(dis>=60)
{
for(int i=0; i<=5; i=i+1)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}



  //Temperate Sensor
double a= analogRead(A0);
double t=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);


//LED ON
if(t>=20)//(in terms of celsius)
{
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
}

//Buzzer for Temperature Sensor
if(t>=20)
{
for(int i=0; i<=5; i=i+1)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
```

```
  //LED OFF
 if(t<20)
 {
   digitalWrite(8,LOW);
   digitalWrite(7,LOW);
 }
}
```

Tinkercad Link:

https://www.tinkercad.com/things/fZqAiSqqoUr-neat-waasa/editel? sharecode=Orf9dNG-ZKJmzrGCsmKvaGNbuouDQ8e4cR0MtBEBiYk

Output (Serial Monitor):



Circuit Diagram: