

Assignment -1

A Cyril tony
2019503010

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);
}
```

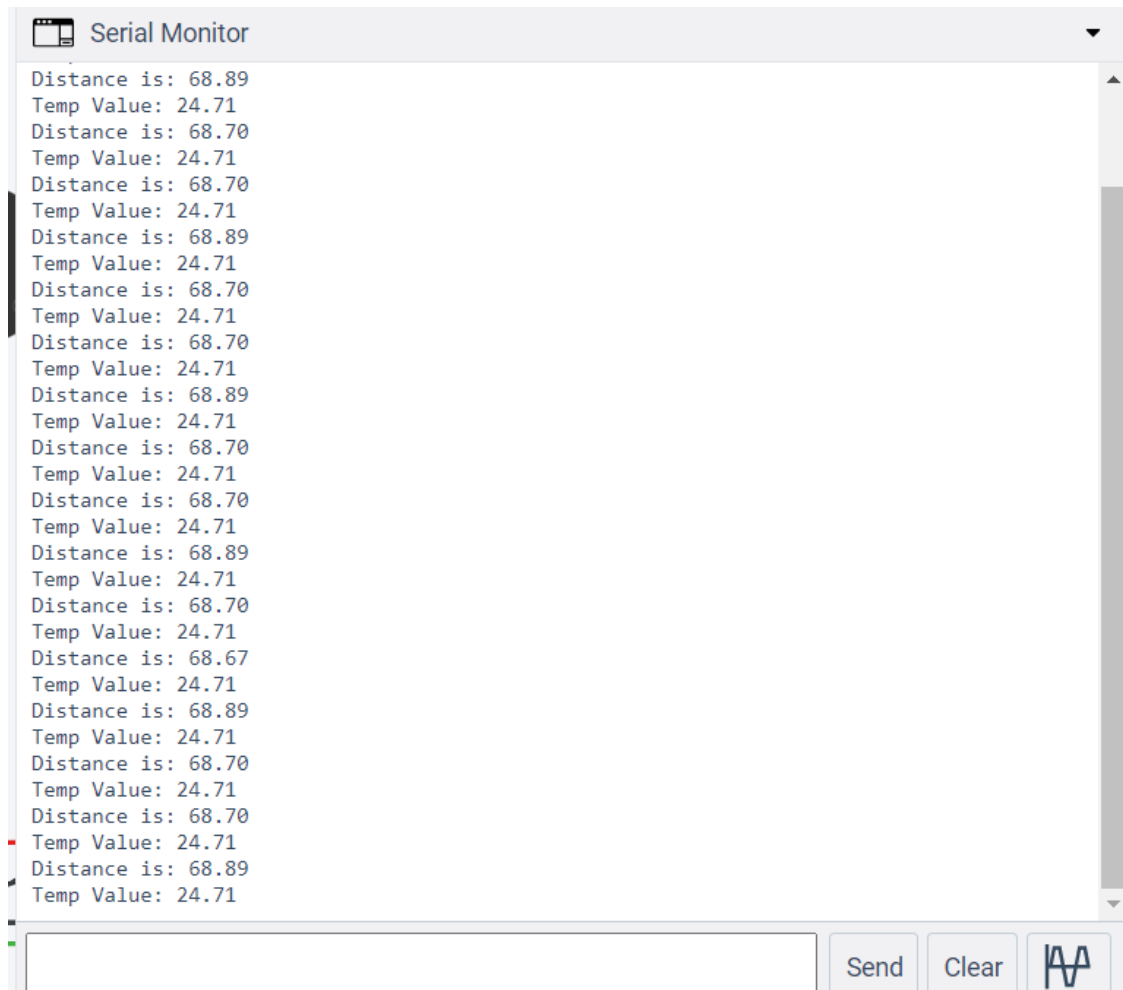
```
//Buzzer for Temperature Sensor
if(t>=20)
{
    for(int i=0; i<=5; i=i+1)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}
```

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

Tinkercad Link:

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

Output (Serial Monitor):



Circuit Diagram:

