Assignment -1

Tinkercard Circuit

| Assignment Date | 15 September 2022 |
|---------------------|----------------------|
| Student Name | Mr. Danush Gupta V K |
| Student Roll Number | 2019503012 |
| 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)
 {
```

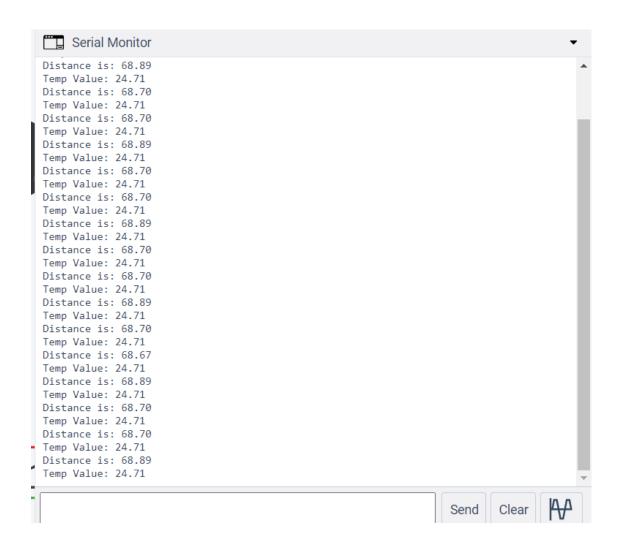
```
digitalWrite(8,HIGH);
 digitalWrite(7,HIGH);
}
//Buzzer For ultrasonic Sensor
if(dis>=60)
for(int i=0; i<=5; i=i+1)
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
 //Temperate Sensor
double a= analogRead(A0);
double t=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(t);
delay(1000);
//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);
}</pre>
```

Tinkercad Link:

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

Output (Serial Monitor):



Circuit Diagram:

