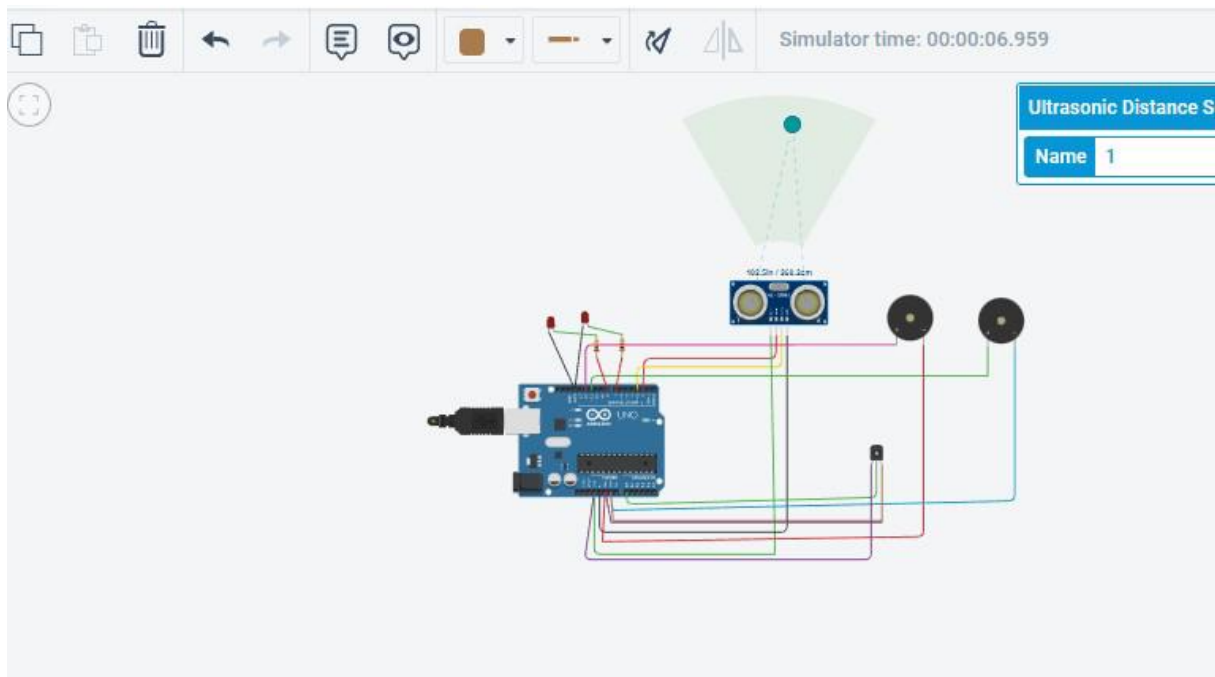


**Assignment -1**  
Tinker Cad

Assignment Date	19 September 2022
Student Name	Ms. Swetha K
Student Roll Number	713519CEEC040
Maximum Marks	2 Marks

**Question-1:**

Smart Home Automation



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>=100)
```

```
    {
```

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

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

```
    }
```

```
    //Buzzer For ultrasonic Sensor
```

```
    if(dis>=100)
```

```
    {
```

```
        for(int i=0; i<=30000; i=i+10)
```

```
        {
```

```
            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>=100)
{
    digitalWrite(8,HIGH);
    digitalWrite(7,HIGH);
}

//Buzzer for Temperature Sensor
if(t>=100)
{
    for(int i=0; i<=30000; i=i+10)
    {
        tone(12,i);
        delay(1000);
        noTone(12);
        delay(1000);
    }
}

//LED OFF
if(t<100)
{
    digitalWrite(8,LOW);
    digitalWrite(7,LOW);
}
}
```