

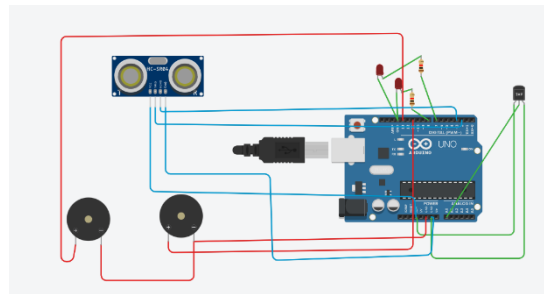
## Assignment -1

Assignment Date	22 September 2022
Student Name	Ms. Elakkiya S
Student Roll Number	711119106009
Maximum Marks	2 Marks

### Question-1:

Make a Smarthome in TinkerCad,using 2+ Sensors,LED,Buzzer in Single Code and Circuit.

### ASSIGNMENT-1



```
// C++ 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);  
}  
}
```