

# IBM-Nallaiya Thiran Project

## Assignment 1-Smart Home

Submitted by,

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## 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);
```

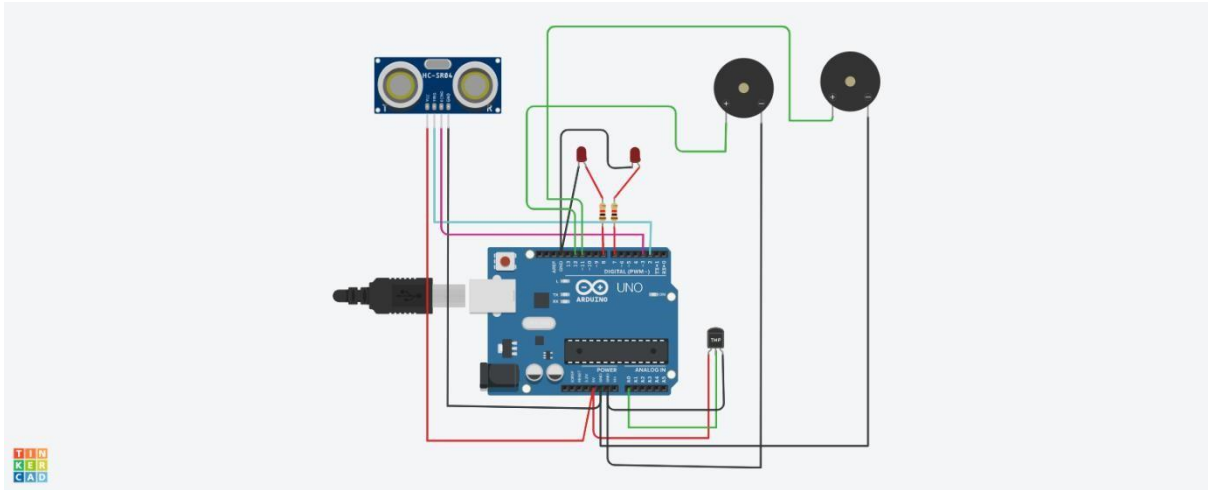
```
//LED ON
if(t>=100)
{
  digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
```

```
//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);
}
}
```

FIGURE:



OUTPUT:  
Distance is:112.88

TINKERCAD LINK:

<https://www.tinkercad.com/things/fPK7PHcHSGI>

OUTPUT:

