

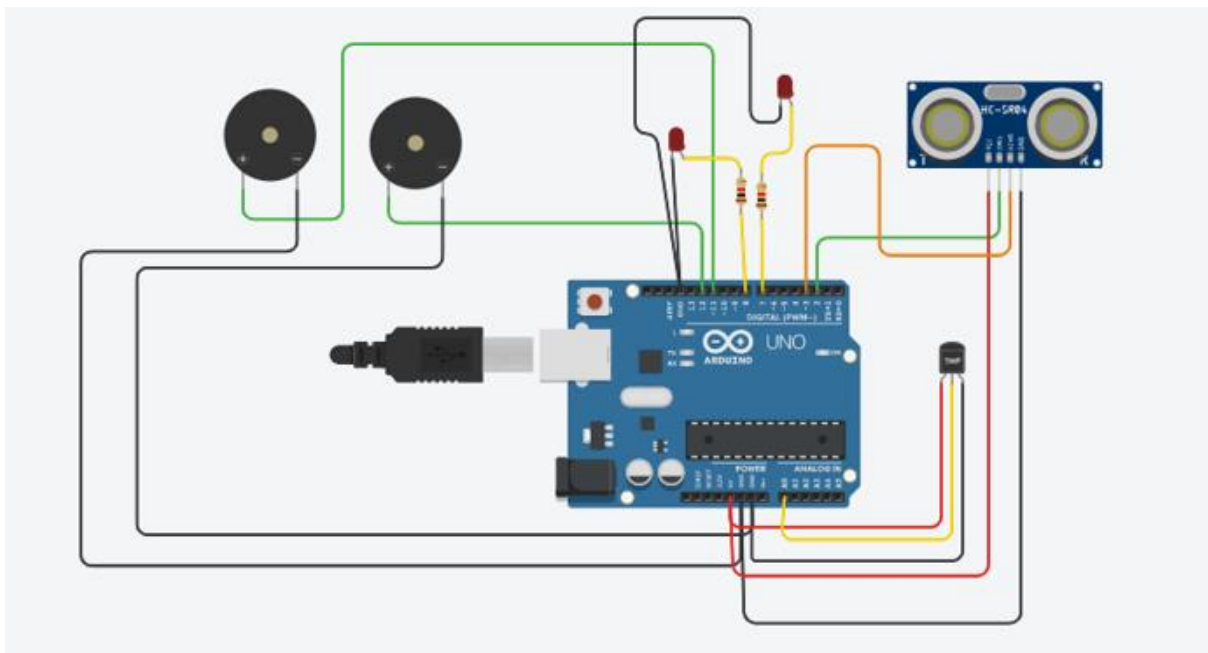
ASSIGNMENT-1

SMART HOME

SRUTHI.S

960219104105

CIRCUIT DIAGRAM:



SOURCE CODE:

```
// C++ code

//

int trig=2;
int echo=3;
void setup()
{
    Serial.begin(9600);
    pinMode(trig,OUTPUT);
    pinMode(echo,INPUT);
    pinMode(12,OUTPUT);
}
void loop()
{
    //ultrasonic sensor
    digitalWrite(trig,LOW);
    digitalWrite(trig,HIGH);
    delayMicroseconds(10);
    digitalWrite(trig,LOW);
    float dur=pulseIn(echo,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 trig=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(trig);
delay(1000);

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

//Buzzer for Temperature Sensor
if(trig>=100)
```

```

{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}

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

```

OUTPUT:

