

# IBM – NALLAIYA THIRAN PROJECT

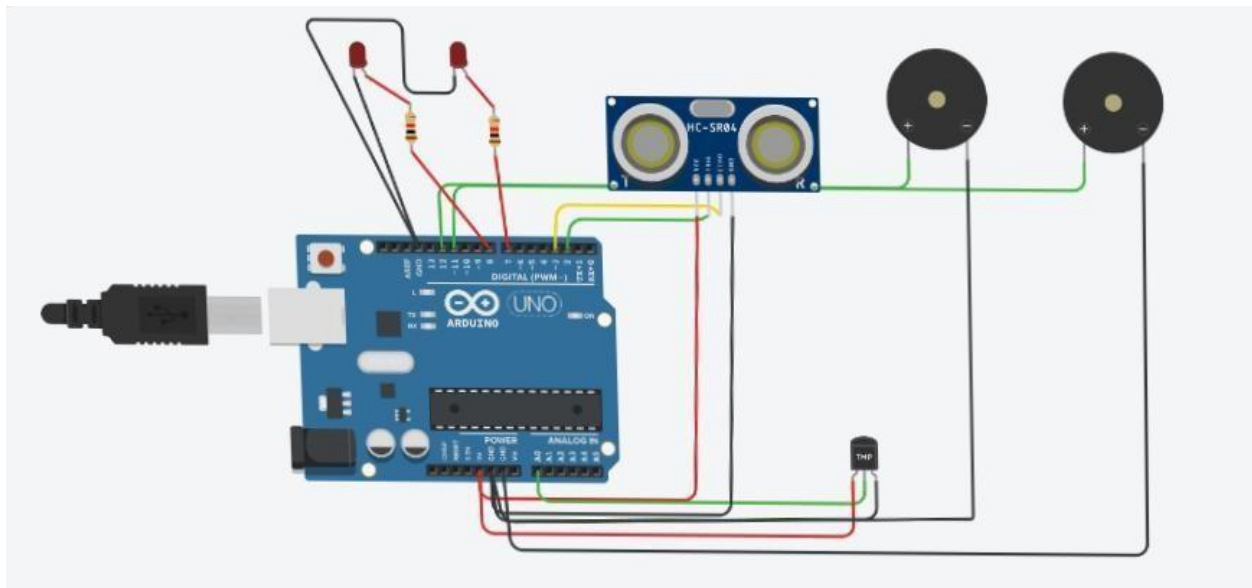
## ASSIGNMENT 1

### SMART HOME

Abina.S

960219106004

CIRCUIT DIAGRAM:



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>=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); }  
}
```

