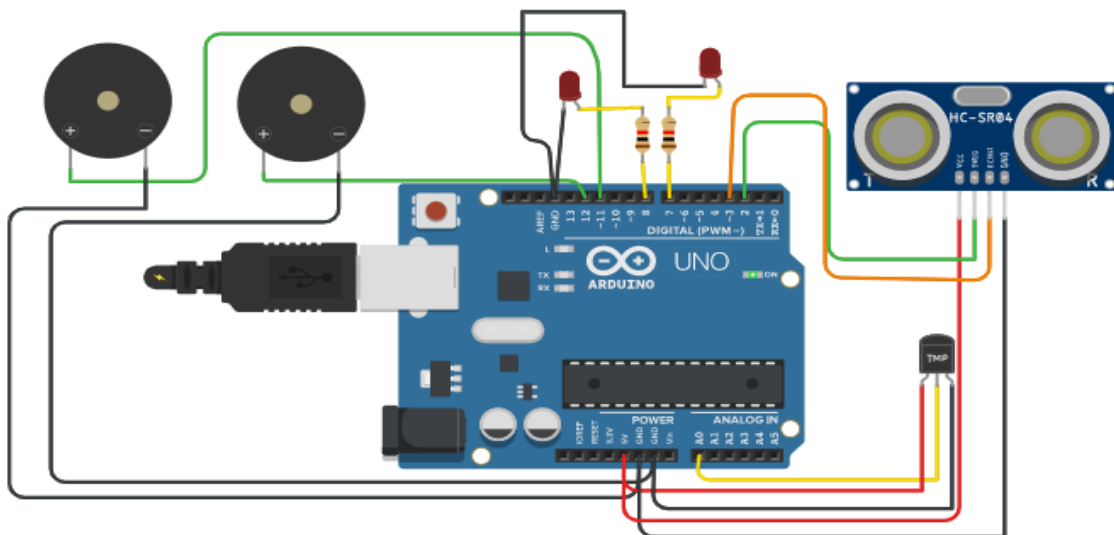


ASSIGNMENT 1

SMART HOME IN TINKERCAD

| | |
|-----------------|------------------|
| Assignment Date | 21-09-2022 |
| Student Name | R.V. Raveena |
| Register Number | 960219104080 |
| Team ID | PNT2022TMID34030 |
| Maximum Marks | 2 Marks |

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:

