

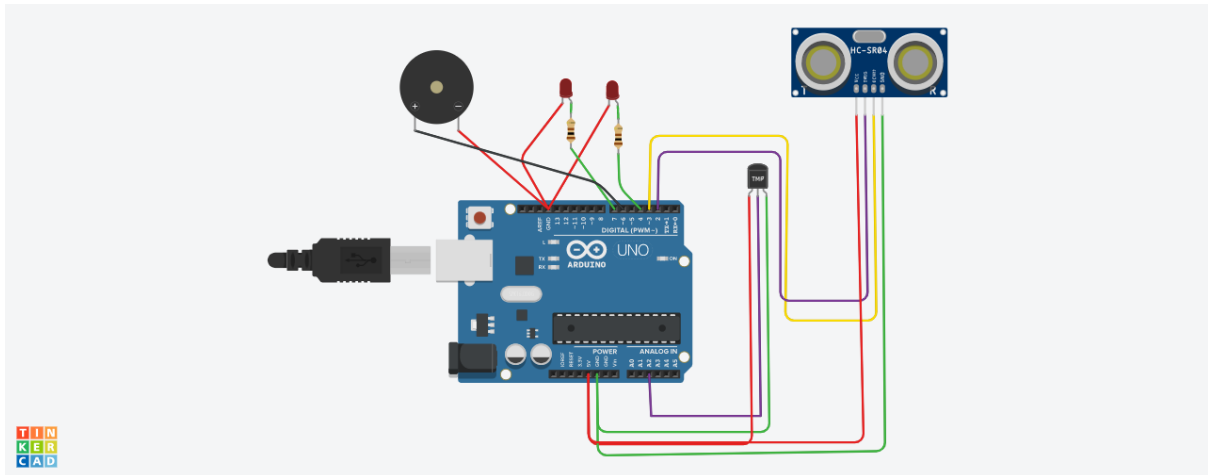
**NAME:** K.M.Dharshini

**REG. NO.:** 211419106065

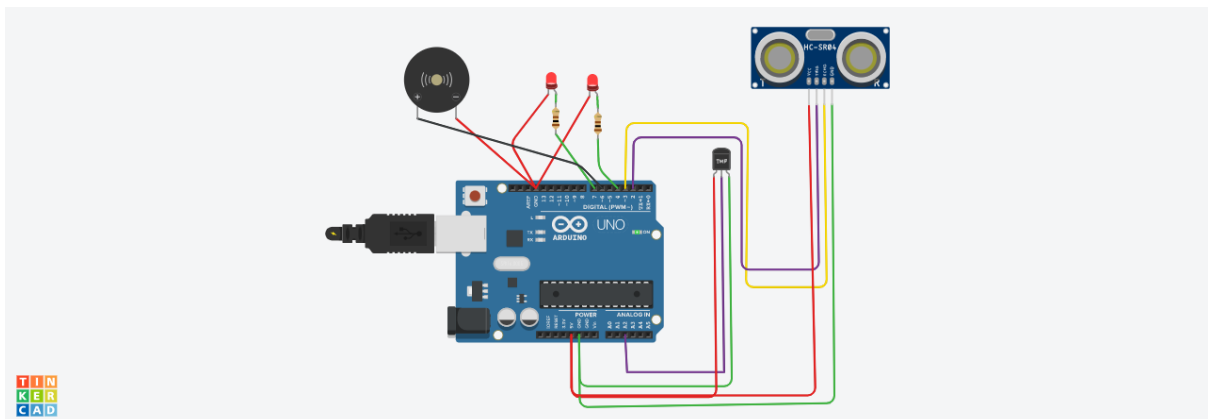
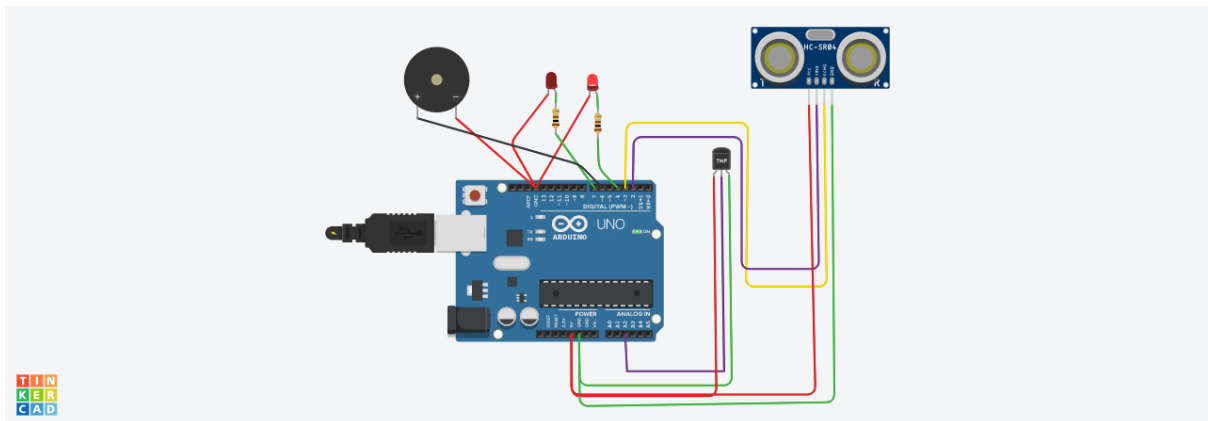
## **ASSIGNMENT-1**

### **SMART HOME USING TINKERCAD**

#### **CIRCUIT:**



#### **SIMULATION:**



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**CODE:**

// C++ code

int trig = 2;

int echo = 3;

int led=4;

int buz=6;

int led1=7;

void setup()

{

Serial.begin(9600);

pinMode(trig,OUTPUT);

pinMode(echo,INPUT);

pinMode(led,OUTPUT);

pinMode(led1,OUTPUT);

pinMode(buz,OUTPUT);

}

void loop()

{

// temperature sensor

double t = analogRead(A2);

Serial.print("Analog data: ");

Serial.println(t);

double n= t/1024;

double v=n\*5;

Serial.print("Voltage data: ");

Serial.println(v);

double c=v-0.5;

double k=v\*100;

Serial.print("Temperature value:");

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```
Serial.println(k);  
delay(1000);  
//ultrasonic sensor  
digitalWrite(trig,LOW);  
digitalWrite(trig,HIGH);  
delayMicroseconds(10);  
digitalWrite(trig,LOW);  
float dur=pulseIn(echo,HIGH);  
float dist=(dur*0.0343)/2;  
Serial.print("Distance in cm : ");  
Serial.println(dist);  
//led  
if(dist>=100)  
{  
digitalWrite(led,HIGH);  
}  
else  
{  
digitalWrite(led,LOW);  
}  
//buzzer  
digitalWrite(buz,LOW);  
digitalWrite(led1,LOW);  
delay(1000);  
digitalWrite(buz,HIGH);  
digitalWrite(led1,HIGH);  
delay(1000);  
}
```