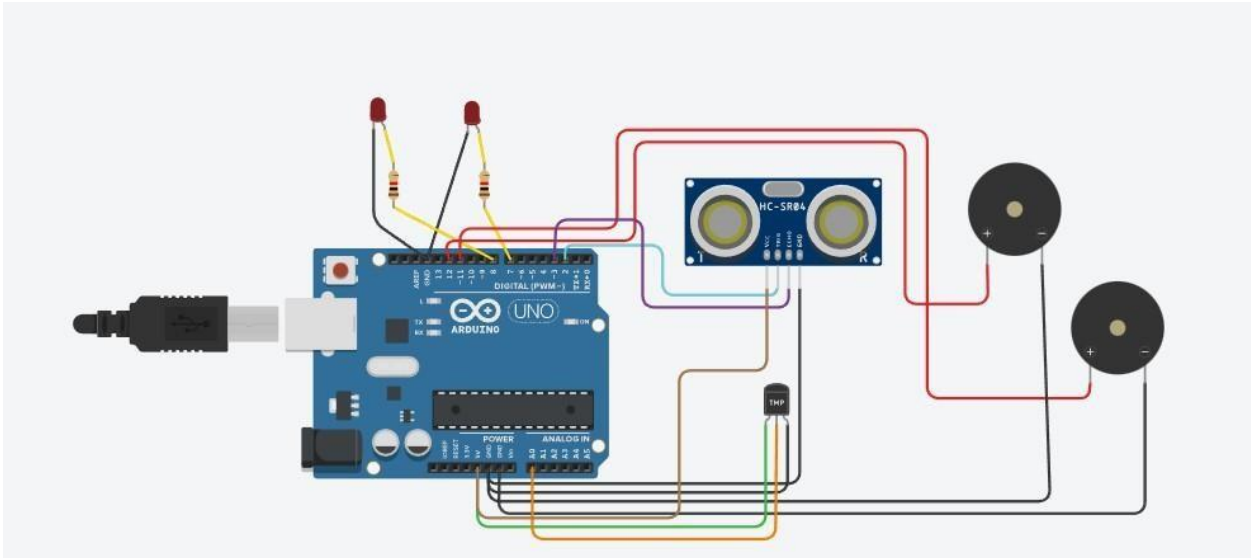# SMART HOME AUTOMATION

ALFHA A
960219106019

Circuit Diagram

Code

```cpp
// C++ code
//
int t=2; int
e=3;

void setup()
{
  Serial.begin(9600);
pinMode(t,OUTPUT);
pinMode(e,INPUT);   pinMode(12,
```

```arduino
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);

  if(dis>=100)
  {
    digitalWrite(7,HIGH);
digitalWrite(8,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);
    }
  }


  //Temperature sensor
double
a=analogRead(A0);
double t=(((a/1024)*5)-
0.5)*100;
  Serial.print("Temp Value:");
Serial.println(t);   delay(1000);

  if(t>=100)
  {
    digitalWrite(8,HIGH);
digitalWrite(8,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);
    }  }
if(t<100)
  {
    digitalWrite(8,HIGH);
digitalWrite(8,HIGH);
  }
}
```

Tinkercad Link

https://www.tinkercad.com/things/9TezMKQSUQU