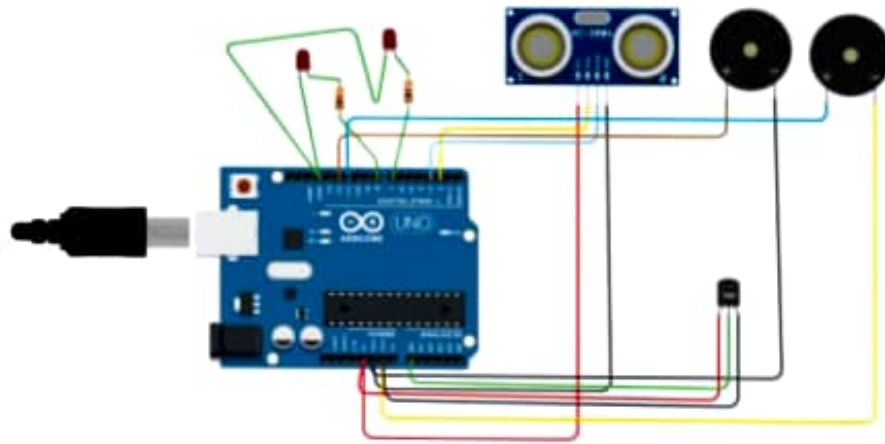# Assignment 1

Circuit diagram:

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);
```

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