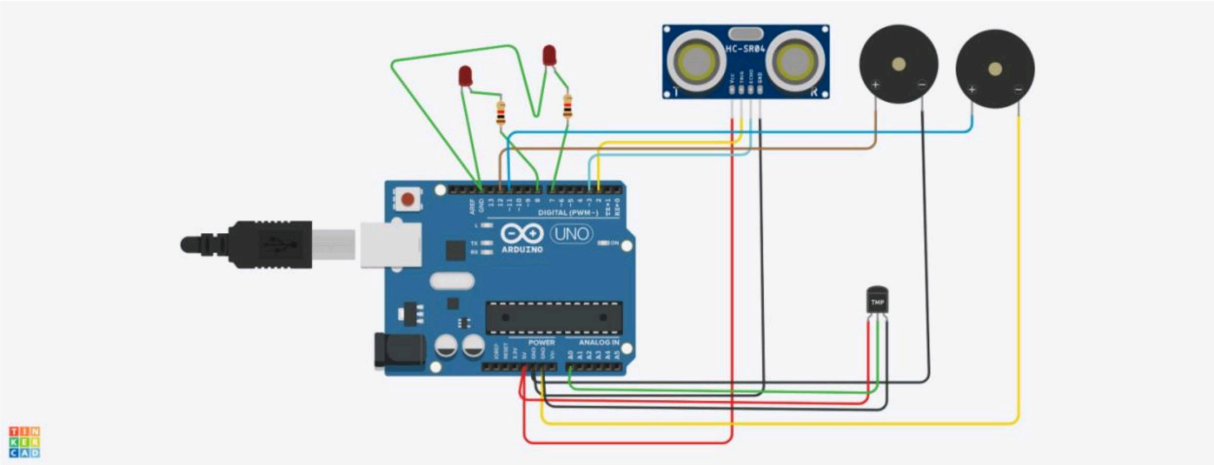
Assignment 1

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);
```

```
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);
  }
}
```