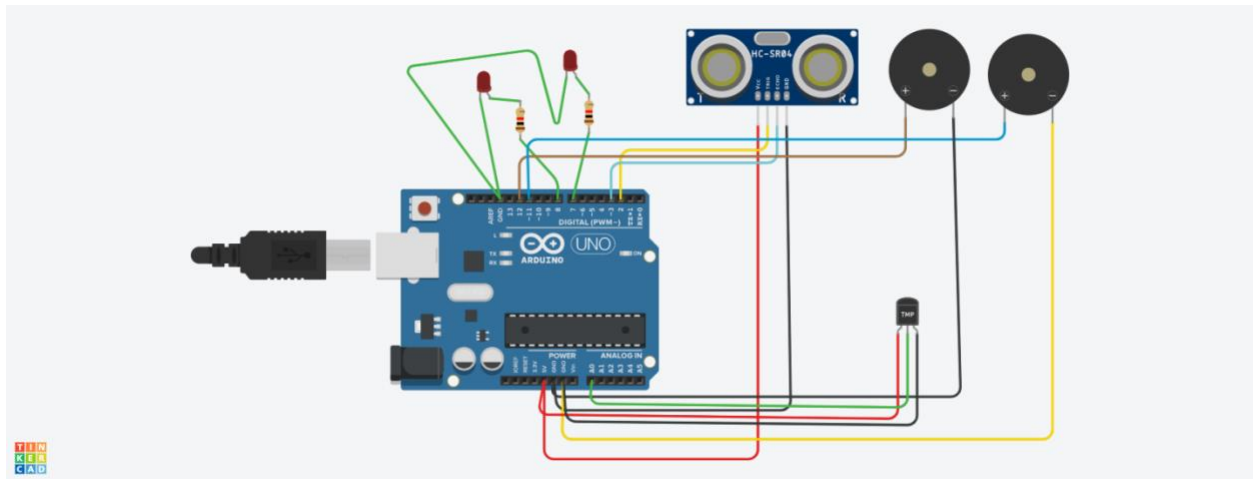


Assignment 1

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);
    }
}
```