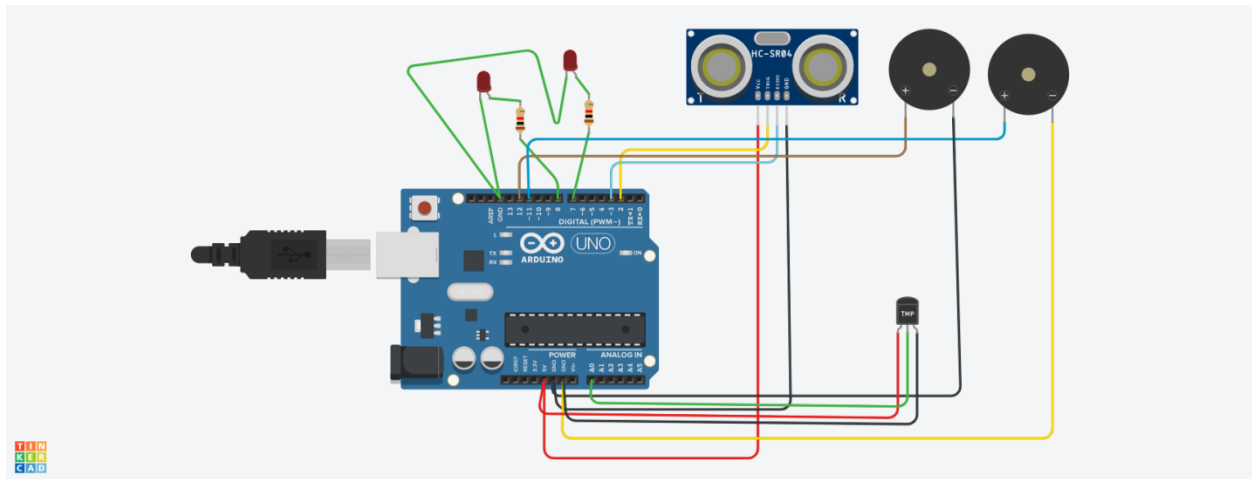


Assignment 1

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);
}
}
```