

Assignment 1

```
// C++ code

//

Int t=3;

Int e=4;


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(9,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);
    }
}
```

```
//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(9,LOW);
digitalWrite(8,LOW);
}
```

}

