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ASSIGNMENT - 1

```
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);
}
}
```