

```

int
i=4;

int e=5;

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(10,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);
```

```
}
```

```
}
```

```
//Temperature sensor
```

```
double a=analogRead(A0);
```

```
double t=[(((a/1024)*5)-0.5)*100];
```

```
Serial.print("Temperature value: ");
```

```
Serial.println(t);
```

```
delay(1000);
```

```
//LED on
```

```
if(t>=100)
```

```
{
```

```
digitalWrite(9,HIGH);
```

```
        digitalWrite(10,HIGH);  
    }  
  
    //Buzzer for Temperature sensor  
    if(t>=100)  
    {  
        tone(12,i);  
        delay(2000);  
        noTone(12);  
        delay(2000);  
    }  
}  
  
//LED off  
if(t<100)  
{  
    digitalWrite(8,LOW);  
    digitalWrite(7,LOW);  
}  
}
```