// C++ code

//

int t=2;

int e=3;

int distance;

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=(t,HIGH);

float dis=(Dur\*0.0343)/2;

Serial.println("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);

}

}

//Temperature 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,HIGH);

digitalWrite(7,HIGH);

}

}