// C++ code

//

Int t = 8;

Int led = 10;

Int Buzz= 5; // Define Bizzer pin

#define trigPin 1

#define echoPin 2

Int Buzzer = 8;

Int ledPin= 12;

Int duration, distance;

Void setup()

{

pinMode(A2, INPUT);

pinMode(t, OUTPUT);

pinMode(led,OUTPUT);

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

pinMode(Buzzer, OUTPUT);

pinMode(ledPin, OUTPUT);

Serial.begin(9600);

}

Void loop()

{

//temperature sensor with buzzer

Double a= analogRead(A2);

Double t=(((a/1024)\*5)-0.5)\*100;

Serial.print(“Temp Value: “);

Serial.println(t);

Delay(1000);

//LED ON

If(t>=100)

{

digitalWrite(10,HIGH);

}

If(t>=100)

{

For(int i=0; i<=30000; i=i+10)

{

Tone(12,i);

Delay(1000);

noTone(12);

delay(1000);

}

}

If(t<100)

{

digitalWrite(10,LOW);

}

// ultrasonic sensor

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distance = (duration/2) / 29.1;

//when distance is greater than or equal to 200 OR less than or equal to 0,the buzzer and LED are off

If (distance >= 200 || distance <= 0)

{

Serial.println(“no object detected”);

digitalWrite(Buzzer,LOW);

digitalWrite(ledPin,LOW);

}

Else

{

Serial.println(“object detected \n”);

Serial.print(“distance= “);

Serial.print(distance); //prints the distance if it is between the range 0 to 200

Tone(Buzzer,400); // play tone of 400Hz for 500 ms

digitalWrite(ledPin,HIGH);

}

}