Int trigpin=2;

Int echopin=3;

Int distance;

Void setup()

{

Serial.begin(9600);

pinMode(4,INPUT);

pinMode(8,OUTPUT);

pinMode(13,OUTPUT);

pinMode(trigpin,OUTPUT);

pinMode(echopin,INPUT);

pinMode(12,OUTPUT);

}

Void loop()

{

Int pir=digitalRead(4);

Serial.println(pir);

If(pir)

{

digitalWrite(13,HIGH);

Serial.println(“motion detected”);

}

Delay(1000);

Double val=analogRead(A0);

Double temp=(((val/1024)\*5)-0.5)\*100;

Serial.println(temp);

If(temp>25)

Serial.println(“temperature is great”);

Delay(1000);

digitalWrite(trigpin,LOW);

digitalWrite(trigpin,HIGH);

delay(100);

digitalWrite(trigpin,LOW);

float dur = pulseIn(echopin,HIGH);

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

Serial.print(“distance:”);

Serial.print(dis);

Serial.println(“cm”);

If(distance<100)

{

digitalWrite(8,HIGH);

Serial.println(“turn on light”);

}

Else

Serial.println(“turn off the light”);

If(dis>=100)

{

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

{

Tone(12,i);

Delay(1000);

noTone(12);

delay(1000);

}

}

}