#include<Servo.h>

Const int pingPin = 7;

Int servoPin = 8;

Servo servo1;

Void setup() {

// initialize serial communication:

Serial.begin(9600);

Servo1.attach(servoPin);

pinMode(2,INPUT);

pinMode(4,OUTPUT);

pinMode(11,OUTPUT);

pinMode(12,OUTPUT);

pinMode(13,OUTPUT);

pinMode(A0,INPUT);

digitalWrite(2,LOW);

digitalWrite(11,HIGH);

}

Void loop() {

Long duration, inches, cm;

pinMode(pingPin, OUTPUT);

digitalWrite(pingPin, LOW);

delayMicroseconds(2);

digitalWrite(pingPin, HIGH);

delayMicroseconds(5);

digitalWrite(pingPin, LOW);

// The same pin is used to read the signal from the PING))): a HIGH pulse

// whose duration is the time (in microseconds) from the sending of the ping

// to the reception of its echo off of an object.

pinMode(pingPin, INPUT);

duration = pulseIn(pingPin, HIGH);

// convert the time into a distance

Inches = microsecondsToInches(duration);

Cm = microsecondsToCentimeters(duration);

//Serial.print(inches);

//Serial.print(“in, “);

//Serial.print(cm);

//Serial.print(“cm”);

//Serial.println();

//delay(100);

Servo1.write(0);

If(cm < 40)

{

Servo1.write(90);

Delay(2000);

}

Else

{

Servo1.write(0);

}

// PIR with LED starts

Int pir = digitalRead(2);

If(pir == HIGH)

{

digitalWrite(4,HIGH);

delay(1000);

}

Else if(pir == LOW)

{

digitalWrite(4,LOW);

}

//temp with fan

Float value=analogRead(A0);

Float temperature=value\*0.48;

Serial.println(“temperature”);

Serial.println(temperature);

If(temperature > 20)

{

digitalWrite(12,HIGH);

digitalWrite(13,LOW);

}

Else

{

digitalWrite(12,LOW);

digitalWrite(13,LOW);

}

}

Long microsecondsToInches(long microseconds) {

Return microseconds / 74 / 2;

}

Long microsecondsToCentimeters(long microseconds) {

Return microseconds / 29 / 2;

}