#include<Servo.h>  
const int pingPin = 7;  
int servoPin = 8;  
Servo servo1;  
void setup()  
{  
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);

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;  
}