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int trig = 2;
int echo = 3;
void setup()
{
    pinMode(trig, OUTPUT);
    pinMode(echo, INPUT);
    Serial.begin(9600);
    pinMode(7, OUTPUT);
    pinMode(8, OUTPUT);
    pinMode(13, INPUT);
    pinMode(1, OUTPUT);
}

void loop()
{
    int i = 0;
    for( i = 0; i<5;i++){
        digitalWrite(trig, LOW);
        digitalWrite(trig, HIGH);
        delayMicroseconds(10);
        digitalWrite(trig, LOW);
        float dur = pulseIn(echo, HIGH);
        float dist = (dur*0.0343)/2;
        Serial.print("Distance");
        Serial.println(dist);
        if(dist>=100){
            digitalWrite(7, HIGH);
            delay(100);
        }
        else{
            digitalWrite(7, LOW);
            delay(100);
        }
    }
    int j = 0;
    for(j = 0;j<5;j++){
        double a=analogRead(A1);
        Serial.print("Adc Value:");
        Serial.println(a);
        double v= a/1024;
        double tvolt= v*5;
        Serial.print("temp value voltage:");
        Serial.println(tvolt);
        double o = tvolt-0.5;
        double t= o*100;
        Serial.print ("Temperature is :");
        Serial.println(t);
        if (t>=300)
        {
            digitalWrite(8, HIGH);
            delay(1000);
        }
    }
}

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    else
    {
        digitalWrite(8, LOW);
        delay(1000);
    }
}
int m = digitalRead(13);
Serial.print("Motion detector");
Serial.println(m);
if(m == 1){
    Serial.println("yes");
    digitalWrite(1, HIGH);
}
else{
    Serial.println("No");
    digitalWrite(1, LOW);
}
}
```