

<https://wokwi.com/projects/346775237405180499>

program:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "zoos5b"
#define deviceType = "abcd"
#define deviceId = "12"
#define authMethod = "use-token-auth"
#define authToken = "12345678"

void setup(){
    Serial.begin(9600);
    pinMode(TRIG_PIN,OUTPUT);
    pinMode(ECHO_PIN,INPUT);
}

float readDistanceCM(){
    digitalWrite(TRIG_PIN,LOW);
    delayMicroseconds(2);
    digitalWrite(TRIG_PIN,HIGH);
    delayMicroseconds(10);
    digitalWrite(TRIG_PIN,LOW);
    int duration=pulseIn(ECHO_PIN,HIGH);
    return duration*0.034/2;
}

void loop(){
    float distance=readDistanceCM();

    if(distance<=100)
    {
        Serial.println("person detected");
    }
    else{
        Serial.print("Measured distance:");
        Serial.println(readDistanceCM());
    }
    delay(1000);
}
```

hc-sr04.ino

diagram.json

Library Manager

```
5
6   Copyright (C) 2021, Uri Shaked
7   */
8
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11  #define organization = "zoos5b"
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17  void setup(){
18      Serial.begin(9600);
19      pinMode(TRIG_PIN,OUTPUT);
20      pinMode(ECHO_PIN,INPUT);
21  }
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23  float readDistanceCM(){
24      digitalWrite(TRIG_PIN,LOW);
25      delayMicroseconds(2);
26      digitalWrite(TRIG_PIN,HIGH);
27      delayMicroseconds(10);
28      digitalWrite(TRIG_PIN,LOW);
29      int duration=pulseIn(ECHO_PIN,HIGH);
30      return duration*0.034/2;
31  }
32  void loop(){
33      float distance = readDistanceCM();
34  }
```

Simulation

00:18.067

Editing Ultrasonic Distance Sensor

Distance: 16cm

Measured distance:141.13
Measured distance:141.03
Measured distance:141.13
Measured distance:141.13
person detected