

LINK:

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

PROGRAM:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "odvjnt"
#define deviceType = "abcd"
#define deviceId = "123456"
#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
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17 void setup(){
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23 float readDistanceCM(){
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28   digitalWrite(TRIG_PIN,LOW);
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32 void loop(){
33   float distance=readDistanceCM();
34 }
```

Simulation

00:10.729 97%

Editing Ultrasonic Distance Sensor

Distance: 228cm

Measured distance:182.56
person detected
person detected
person detected
person detected
Measured distance:224.86
Measured distance:224.96