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## Company Address

Arrow Electronics, Inc  
9201 East Dry Creek Road  
Centennial, CO 80112



## Grove - Ultrasonic Ranger

SKU 101020010



IN STOCK 50+ Available

- 1 +

ADD TO CART

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### Description

This Grove-ultrasonic sensor is a non-contact distance measurement module which is compatible with the Grove system. It's designed for easy modular project usage with industrial performance. There is also the electronic version of this module [here](#)  
 Video available [here](#)

### Features

- Detecting range: 3cm-4m,best in 30 degree angle.
- Grove interface
- 5V DC power supply
- Arduino library ready


For all Grove users (especially beginners), we provide you guidance PDF documents. Please download and read through [Preface - Getting Started](#) and [Introduction to Grove](#) before your using of the product.

Please visit our [wiki page](#) for more info about this product. It will be appreciated if you can help us improve the documents, add more demo code or tutorials. For technical support, please post your questions to our [forum](#).

### Best-sellers



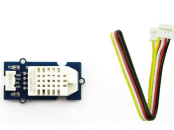
Grove - PIR Motion Sensor



Grove - Universal 4 Pin 20cm...



Base Shield V2



Grove - Temperature & Hu...

### Technical Details

Dimensions	50mm x 25mm x 16mm
Weight	G.W 15g
Battery	Exclude

Measuring range	400cm, Resolution 1cm
Operating voltage	DC 3.2~5.2V
Operating current	8mA
Ultrasonic frequency	40kHz
Connector	Grove x1
Output	PWM

### Part List

Grove - Ultrasonic Ranger	1
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### Platforms Supported



### Documents

- [SerialLCD Library](#)
- [Suli-compatible Library](#)
- [Ultrasonic Ranger library](#)

### Learn



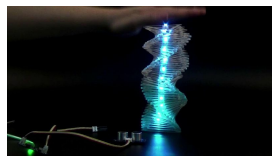
[\[Wiki\]](#) Grove - Ultrasonic sensor

This Grove - Ultrasonic sensor is a non-contact distance measurement module which works at 42KHz, suitable for projects that require middle distance measurement.



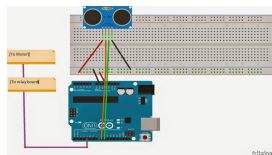
Indoor Lightning Cloud

Make an indoor lightning Cloud, hang it up right over your door mat, blast whoever passing under it, feel the the beauty of nature in the house.



The Colour Helix

With a Grove - Ultrasonic Ranger she can magically control the number of illuminated LEDs inside the Helix by raising or lower her palm in the air.



Automatic Water Level Controller

There are many ways like using a float sensor to determine the water level, or using probes to detect peak and low level in the tank. How to measure water level without using probe or contacting with water? yeah there is a way just using a Ultrasoni

### Questions and Answers

Have a question about this? Ask people who own it.

1

Hi !! need a sensor that can read the blue or red line on the PC screen about 1.5 mm wide on the black bottom, and then give the contact get to start a clock. Which sensor can fit this and I need some additional equipment. Thanks for reply. roald

Could you please share some pictures about the button and line?Thanks.&nbsp;

ae on Jul 04,2017 11:24 AM

Reply |  
upvote (1)

roald800 on Jul 04,2017 13:59 PM



Reply |  
upvote (0)

1

I want to use three Ultrasonic sensors, one for calibration and two for distance. All your examples show only one in use at D7 using the Grove board. First can I use more than one and what channels on the Grove base board.

scottpatrickj on Nov 25,2016

Reply |  
upvote (1)

```
You can also connect it to D6, D5 port. The following is a code that uses three ultrasonic ranger for your reference.
#include "Ultrasonic.h"Ultrasonic ultrasonic(7);Ultrasonic ultrasonic1(6);Ultrasonic ultrasonic2(5);void setup(){ Serial.begin(9600);}void loop(){ long RangeInInches; long RangeInCentimeters; Serial.println("Ranger1: "); RangeInInches = ultrasonic.MeasureInInches(); Serial.print(RangeInInches);//0~157 inches Serial.println(" inch"); delay(250); RangeInCentimeters = ultrasonic.MeasureInCentimeters(); // two measurements should keep an interval Serial.print(RangeInCentimeters);//0~400cm Serial.println(" cm"); delay(250); Serial.println("Ranger2: "); RangeInInches = ultrasonic1.MeasureInInches(); Serial.print(RangeInInches);//0~157 inches Serial.println(" inch"); delay(250); RangeInCentimeters = ultrasonic1.MeasureInCentimeters(); // two measurements should keep an interval Serial.print(RangeInCentimeters);//0~400cm Serial.println(" cm"); delay(250); Serial.println("Ranger3: "); RangeInInches = ultrasonic2.MeasureInInches(); Serial.print(RangeInInches);//0~157 inches Serial.println(" inch"); delay(250); RangeInCentimeters = ultrasonic2.MeasureInCentimeters(); // two measurements should keep an interval Serial.print(RangeInCentimeters);//0~400cm Serial.println(" cm"); delay(250);}
```

kavi on Nov 25,2016 12:57 PM

Reply |  
upvote (1)

0

Will this work with chipKIT uC32 and LabView ?

rodrriasa on Nov 03,2016

Reply |  
upvote (0)

Yes,Grove-Ultrasonic sensor will work with ChipKIT.We haven't tested with Labview.

kavi on Nov 03,2016 12:56 PM

Reply |  
upvote (0)

0

Hello, can i connect this module to the Xbee carrier ? Thx

Sixtine WITTLIN on Nov 01,2016

Reply |  
upvote (0)

Yes, connect the Grove ultra sonic ranger to the D5,D6 grove port of the Xbee carrier.

kavi on Nov 02,2016 18:18 PM

Reply |  
upvote (0)

0

Hi - purchased this and tried to run the example project "All in one" with Raspberry Pi. However the sensor does not seem to be able to detect any changes in distance. Also tried to run the "GroveUltrasonicSensor" project and the result was "Distance: 517 cm" on the screen. Couldn't find much documentation online regarding troubleshooting so hoping to get some help from here. Thanks in advance!

brandyowl on Jun 25,2017

Reply |  
upvote (0)

0

as

diao liu one on Jun 20,2017

Reply | upvote (0)



a

diao liu one on Jun 20,2017

Reply | upvote (0)



a

diao liu one on Jun 20,2017

Reply | upvote (0)



base on the wiki:Operating voltage: 3.3/5.0VDCOperating current: 15mAUltrasonic frequency: 42kHzSo this one should work on 3.3v system, like Arduino duo, seeeduino arch, right?

flywind on Oct 19,2016

Reply | upvote (0)

Yes, you can. You can send your design files in one e-mail and name the files like this: order37218\_5cm\*5cm\_1, order37218\_5cm\*5cm\_2, order37218\_10cm\*10cm\_1, and order37218\_10cm\*10cm\_2.

leslie liao on Oct 20,2016 10:41 AM

Reply | upvote (0)



Hello. I want to use Grove - Ultrasonic Ranger (SEN10737P) with PIC microcontroller. Will it be possible to use? If yes, Do I need additional hardware for setting it up?

on Oct 19,2016

Reply | upvote (0)

Sorry, but we seldom use BGA package.

Steve Chang on Oct 20,2016 10:41 AM

Reply | upvote (0)

Please pay attention the input voltage of your PIC and Grove sensor, if all the same, you can do it. But if no additional circuit with your PIC microcontroller, maybe the data could be influenced by something.

Jacket Chen on Oct 20,2016 10:50 AM

Reply | upvote (0)

### Related



Base Shield V2



Grove - LCD RGB Backlight



GrovePi+



Seeeduino V4.2

### View History



Grove - Button



Grove - Moisture Sensor



Grove - Collision Sensor



Grove - Switch(P)

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