

# Distributor Resources

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Our most popular  
sensors

Email Templates to  
Send to Your  
Customers

User Case Studies

**For more information, go  
to [maxbotix.com](http://maxbotix.com)**

# The Top 10 Sensors Our Customers Order

Many of our customers and prospective clients are looking for the best sensor for their project.

There is a lot of information on the web for customers to use our sensors. We wanted to create a concise document to help you choose the best sensor solution for your project.

## Popular Sensors for Indoor(Protected Environment) Use

### [The MB1040 LV-MaxSonar-EZ4](#)

Suggested Retail Price: \$29.95

# MB1040 LV-MaxSonar-EZ4



Main features of this sensor include:

- Range: 6 inches to 254 inches
- Reliable and stable range data
- Great for applications where only larger objects need to be detected
- Can detect people up to approximately 4 feet.

The MB1040 is a popular sensor commonly used in the following applications:

- Autonomous Navigation
- Landing UAV's
- Educational and Hobby Robotics
- Collision Avoidance

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## [The MB1030 LV-MaxSonar-EZ3](#)

Suggested Retail Price: \$29.95

# MB1030 LV-MaxSonar-EZ3



Main features of this sensor include:

- Range: 6 inches to 254 inches
- Reliable and stable range data
- Has a slightly wider beam width than the MB1040 which makes this a good choice for applications where our MB1043 does not have enough sensitivity.
- Can detect people up to approximately 5 feet.

The MB1030 is a popular sensor commonly used in the following applications:

- Autonomous Navigation
- Landing UAV's
- Educational and Hobby Robotics
- Collision Avoidance

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## [The MB1240 XL-MaxSonar-EZ4](#)

Suggested Retail Price: \$39.95

# MB1240 XL-MaxSonar-EZ4



Main features of this sensor include:

- Range: 6 inches to 254 inches
- Reliable and stable range data
- Has a slightly wider beam width than the MB1040 which makes this a good choice for applications where our MB1043 does not have enough sensitivity.
- Can detect people up to approximately 5 feet

The MB1030 is a popular sensor commonly used in the following applications:

- Autonomous Navigation
- Landing UAV's
- Educational and Hobby Robotics
- Collision Avoidance

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## [The MB1340 XL-MaxSonar-AE4](#)

Suggested Retail Price: \$39.95

# MB1340 XL-MaxSonar-AE4



Main features of this sensor include:

- Range: 20 cm to 765 cm
- Short to long distance detection
- Has the highest noise tolerance and narrowest beam width of any sensor in the XL-MaxSonar-AE sensor line.
- Narrowest beam in the XL-MaxSonar-EZ/AE sensor line

The MB1340 is a popular sensor commonly used in the following applications:

- People Detection
- Motion Detection
- Multi-Copters and UAV's
- Collision Avoidance
- Autonomous Navigation

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## [The MB1010 LV-MaxSonar-EZ1](#)

Suggested Retail Price: \$29.95

# MB1010 LV-MaxSonar-EZ1



Main features of this sensor include:

- Range: 6 inches to 254 inches
- A great blend of sensitivity as well as side object rejection.
- Can detect people up to approximately 8 feet.
- Requires use of less sensors to cover a given area.

The MB1010 is a popular sensor commonly used in the following applications:

- People Detection
- Motion Detection
- Collision Avoidance
- Autonomous Navigation

## Popular Sensors for Outdoor (Non-protected Environment) Use

### [The MB7389 HRXL-MaxSonar-WRMT](#)

Suggested Retail Price (MB7389-100) : \$109.95

# MB7389 HRXL-MaxSonar-WRMT



Main features of this sensor include:

- Range: 300mm to 5000mm to the target with the largest acoustic return
- Short to long distance detection
- Superior clutter rejection
- All of the range outputs are active simultaneously
- This sensor comes in a compact and robust PVC housing which meets the IP67 water intrusion standard and matches standard electrical 3/4-inch PVC pipe fittings (this product has multiple housing options available).

The MB7389 is a popular sensor commonly used in the following applications:

- Bin Level Measurement
- Tank Level Measurement



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## [The MB7060 XL-MaxSonar-WR](#)

Suggested Retail Price (MB7060-100) : \$99.95

# MB7060 XL-MaxSonar-WR



Main features of this sensor include:

- Range: 20cm to 765cm to the nearest detectable target
- Short to long distance detection
- Virtually noise free distance readings
- Precise narrow beam
- Continuously variable gain
- This sensor comes in a compact and robust PVC housing which meets the IP67 water intrusion standard and matches standard electrical 3/4-inch PVC pipe fittings (this product has multiple housing options available).

The MB7060 is a popular sensor commonly used in the following applications:

- People Detection
- Distance Measuring
- Multi-Sensor Arrays
- In Applications where a stability filter is not needed or desired

These Case Studies show how these sensors are used in applications in the market.

- Learn how [Company Name] uses the [Sensor Name] to [Sensor Function].

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## [The MB7360 HRXL-MaxSonar-WR](#)

Suggested Retail Price (MB7360-100) : \$109.95

# MB7360 HRXL-MaxSonar-WR



Main features of this sensor include:

- Range: 300mm to 5000m to the nearest detectable target
- Short to long distance detection
- Virtually no sensor dead zone, objects closer than 30cm typically range as 30cm
- Internal temperature compensation
- Long, narrow detection zone
- This sensor comes in a compact and robust PVC housing which meets the IP67 water intrusion standard and matches standard electrical 3/4-inch PVC pipe fittings (this product has multiple housing options available).

The MB7360 is a popular sensor commonly used in the following applications:

- Autonomous Navigation
- Robot Ranging Sensor
- Bin Level Measurement
- Tank Level Measurement

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## [The MB7369 HRXL-MaxSonar-WRM](#)

Suggested Retail Price (MB7369-100) : \$109.95

# MB7369 HRXL-MaxSonar-WRM



Main features of this sensor include:

- Range: 300mm to 5000m to the target with the largest acoustic return
- Short to long distance detection
- Virtually no sensor dead zone, objects closer than 30cm typically range as 30cm
- Internal temperature compensation
- Long, narrow detection zone
- Superior clutter rejection
- This sensor comes in a compact and robust PVC housing which meets the IP67 water intrusion standard and matches standard electrical 3/4-inch PVC pipe fittings (this product has multiple housing options available).

The MB7369 is a popular sensor commonly used in the following applications:

- Bin Level Measurement
- Tank Level Measurement

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## [The MB7052 XL-MaxSonar-WRM1](#)

Suggested Retail Price (MB7052-100) : \$99.95

# MB7052 XL-MaxSonar-WRM1



Main features of this sensor include:

- Range: 20cm to 765cm
- Small target rejection providing range information to the target with the largest acoustic return
- Stability filter
- Short to long distance detection
- Real-time automatic calibration (voltage, humidity, ambient noise)
- Firmware filtering for better noise tolerance and clutter rejection
- Virtually noise free distance readings through the use of high-output acoustic power combined with continuously variable gain
- This sensor comes in a compact and robust PVC housing which meets the IP67 water intrusion standard and matches standard electrical 3/4-inch PVC pipe fittings (this product has multiple housing options available).

The MB7052 is a popular sensor commonly used in the following applications:

- Bin Level Measurement
- Tank Level Measurement
- Autonomous Navigation
- Environments with acoustic and electrical noise

## Additional Sensors to Review

### [The MB1013 HRLV-MaxSonar-EZ1](#)

Suggested Retail Price: \$34.95

# MB1013 HRLV-MaxSonar-EZ1



Main features of this sensor include:

- Range: 300mm to 5000mm
- Short to long distance detection
- A great blend of sensitivity as well as side object detection
- Internal temperature compensation
- Virtually no sensor dead zone, large objects closer than 30 cm are typically reported as 30 cm

The MB1013 is a popular sensor commonly used in the following applications:

- People Detection
- Well Balanced Detection
- Autonomous Navigation

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## [The MB1242 I2CXL-MaxSonar-EZ4](#)

Suggested Retail Price: \$39.95

# MB1242 I2CXL-MaxSonar-EZ4



Main features of this sensor include:

- Range: 20cm to 765cm
- Simple I2C bus interface
- Easy control of multiple sensors
- Control up to 127 sensors using two wires
- Virtually no dead zone, objects closer than 20 cm range as 20 cm
- Firmware filtering for better noise tolerance and clutter rejection

The MB1242 is a popular sensor commonly used in the following applications:

- Motion Detection
- Landing Flying Objects
- Autonomous Navigation
- Collision Avoidance

# Emails Templates

**We wrote these templates to assist you in marketing our products to your current customer base or email list.**

**You can use these for reference purposes and alter them to fit your company.**

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## Level Sensing Emails

**Subject: Useful Case Studies for Level Detection**

**Body:**

MaxBotix has a collection of incredible sensors that we think could be a great fit for any of your projects. We also know when they may not be the right sensor, and we'll let you know.

There are certain lines of our WR sensors which can provide the perfect solution for level sensing.

Here's a few successful use cases of our sensors from our collaborators.

- [Radio Bridge Inc.](#) used our sensor to create a wireless tank monitoring solution which uses the LoRaWAN protocol to connect wirelessly.
- [TECLAB](#) developed an IoT Level Sensor to detect the level of water flowing in a channel.
- [LX Group](#) developed a solution with our sensor which monitors grain silos, water tanks, and dams remotely.

Allow us to help you choose the right solution for your project.

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**Subject: Avoiding certain chemicals in your application environment...**

**Body:**

One of the main factors for many engineers is the use of our sensors in environments with gases or harsh chemicals.

As a brief guide to inform you about the compatibility of MaxBotix sensors in a few environments, they've created the **Chemical Compatibility Chart** to allow you to see some of our most popular chemical and environment queries for their sensor use.

You can review the chart [here](#).

If you don't see the chemical or environment on the chart let us know, as they chose some of the most popular they've been asked about.

Once again, you can review the **Chemical Compatibility Chart** [here](#).

We look forward to hearing from you if you have any questions or concerns.

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**Subject: How to Choose an Ultrasonic Tank Level Sensor**

**Body:**

MaxBotix has had a lot of success working with companies and product developers in level sensing applications.

You can read this article [How to Choose an Ultrasonic Tank Level Sensor](#) which details steps you can take to choose the right sensor for your level sensing application.

In this article they cover:

- The important factors to consider when mounting your sensor
- How to handle using the sensor in an environment with harsh chemicals
- Which sensor lines work best for environments where frost on the sensor might be an issue

Hopefully this article will help you decide which sensor is best for this application.

Tell us more about your application, and we'll help.

We look forward to hearing from you.

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**Subject: Why and How to Order a Fully Sealed Sensor**

**Body:**

When you use a sensor from the MaxBotix WR line, the sensor pinout is left exposed, allowing you to attach wires and equipment to the sensor.

The reason it is left open is that it provides you more flexibility in how you choose to connect to the sensors.

In some applications it can leave the sensor exposed to weather.

If your mounting requires you to protect the back of the sensor from damage, you must seal the sensor pinout.

**For this, MaxBotix offers a wire attach option as a solution...**

The wire attach option will **fully cover the sensor pin out** by adding a small cap filled with an epoxy mixture and attached cable.

By adding the additional potting on the back of the sensor, it will seal it against the effects of weather, dust, and water...

This isn't just for people that just want to protect their sensor, it's for people with limited soldering experience.

If you don't want to risk your new sensor with the first attempt soldering it, we highly suggest working with their professional, in house soldered sensors with wire attachments.

Ask one of our sales representatives if it's a good fit for you and your application.

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## People Detection Emails

**Subject: Do you know the ideal target types for ultrasonic sensors?**

**Body:**

MaxBotix has had a lot of success working with companies, makers, and product developers in people detection.

You can read this article about [Kiosk Sensors & People Detection](#) which covers a few key things while working in this space.

In this article they cover:

- Why people are traditionally a challenging target for an ultrasonic sensor
- The target types that are ideal
- The benefits of an ultrasonic proximity sensor

Hopefully this article will help you decide which sensor is best for this application.

Once again, you can read it [here](#).

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## **Subject: Choosing the right sensor for people detection**

**The goal: To find a sensor that is just sensitive enough for your project but avoids potential issues like picking up interference from an outside noise source.**

The main factor that limits the range to which you can detect a person is the sensitivity of the ultrasonic sensor itself.

Higher sensitivity corresponds to longer range detection of people, but at the same time higher sensitivity also means greater sensitivity to noise.

If you are using a MaxBotix ultrasonic sensor for protected environments, the level of sensitivity can be determined by the EZ or AE designation at the end of the product name. EZ0/AE0 are the most sensitive, and EZ4/AE4 are the least sensitive.

Otherwise, if you are using a MaxBotix sensor for non-protected environments from a WR sensor line, many of the ultrasonic sensors offer very similar detection zones. However, a number of sensors do have heightened sensitivity.

**Not sure which sensor you need?**

**The solution: Contact our technical support team to help you choose the right sensor for your project. We want to do all we can to help you succeed.**

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Extra

Use this if you have a solar panel that can power MaxBotix Sensors. This was used with Voltaic's Sensors. (or if you supply Voltaic panels)

**Subject: Integrating MaxBotix Sensors with Low Power Requirements**

Hi [First Name],

MaxBotix ultrasonic sensors are easy to use in remote applications because they can operate at low voltages and have very low power consumption.

***One of their collaborators, Voltaic Systems develops solar based solutions which work well to power their sensors.***

For solar-powered applications, low power consumption translates to the ability to use a smaller (and less expensive) solar panel or to transmit more data with a given size panel.

Nearly all of Voltaic's industrial customers are using their solar panels to power a sensor and communications over the network.

Those customers performing tide or water level measurements are consistently using MaxBotix weather-resistant ultrasonic sensors.

Voltaic designs and manufactures small scale solar panels built to withstand long-term outdoor deployments in harsh environments.

They work closely with engineers upfront on projects of any size to choose the correct panel given their power consumption and lighting conditions. In addition, they advise on circuit design to make sure as much power as possible is delivered to the device.

[Click here to read more about the use.](#)

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## **Additional Resources for Common Questions / Issues**

[Ultrasonic Quick Start Guide \(Setup Guide for the HRLV-MaxSonar-EZ family\)](#)

[How to Read MaxSonar Beam Patterns](#)

[Guide to Tank Level Monitoring with Ultrasonic Sensors](#)

[Using Multiple Ultrasonic Sensors \(Using more than one sensor in an application\)](#)

[Temperature and Noise Compensation \(How noise interference and temperature can affect your application\)](#)

[\*\*Frequently Asked Questions\*\*](#)

[\*\*Collaborator Case Studies \(Review these use cases for your customers / clients\)\*\*](#)