USER MANUAL

GoMax ORIN and ORIN+ Smart Vision Accelerator

Firmware version: 6.6.x.xx

Document revision: A

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Contact Information

LMI Technologies, Inc.
9200 Glenlyon Parkway
Burnaby BC V5J 5J8
Canada

Telephone: +1 604-636-1011
Fax: +1 604-516-8368

www.lmi3D.com

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Introduction

Welcome to the online documentation for GoMax ORIN and ORIN+ Smart Vision Accelerators. For information on using Gocator sensors and the Gocator firmware, see the user manuals of those devices.

⚠	GoMax ORIN and ORIN+ are *only* compatible with Gocator firmware 6.4 and later, or GoPxL 1.1.51.x and later.

⚠	GoMax NX is *only* compatible with firmware 6.1 SR1 (firmware version 6.1.29.3) to 6.5. Loading an earlier firmware version will make the device unusable. The device will refuse to upgrade to Gocator 6.6 or later.

In this document, we will use the term "GoMax" or "GoMax unit" to refer to GoMax ORIN or ORIN+.

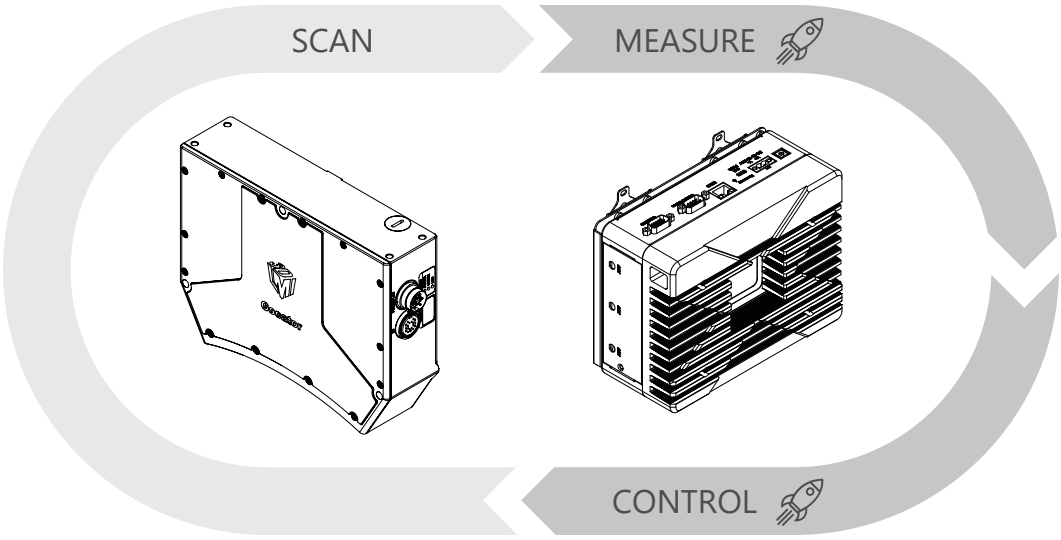
Notational Conventions
This documentation uses the following notational conventions:

⚠	Follow these safety guidelines to avoid potential injury or property damage.

🗋	Consider this information in order to make best use of the product.

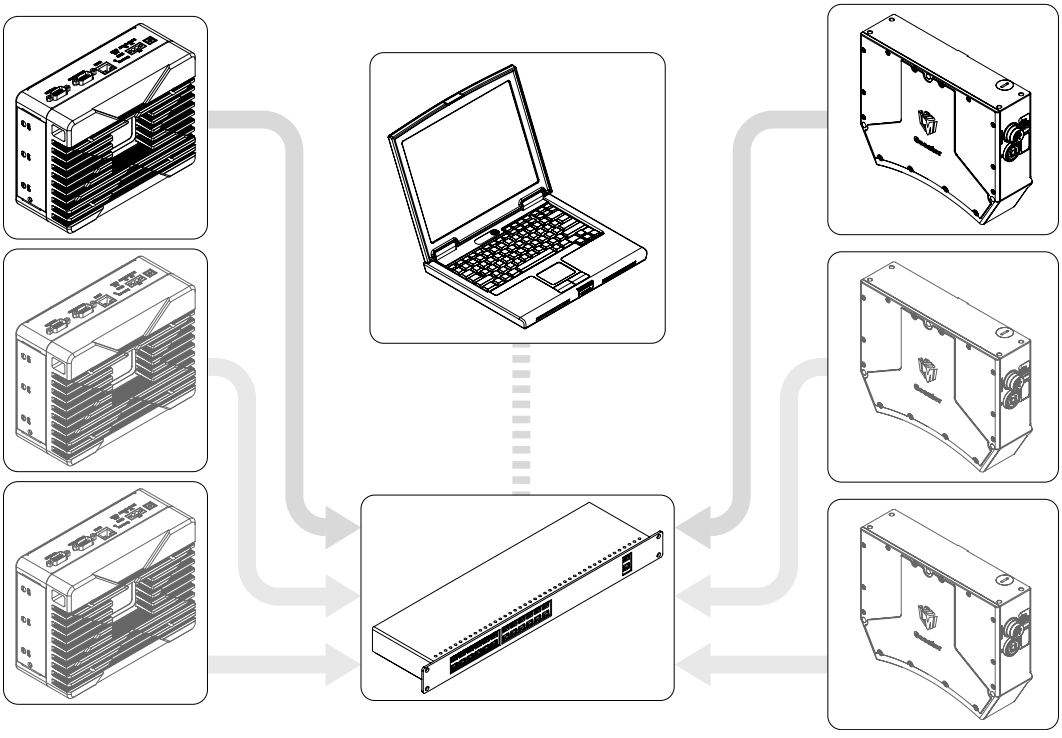
The GoMax Smart Vision Accelerator is a hardware solution that accelerates any Gocator sensor to meet inline production speeds, without the need for a PC. The plug and play functionality of GoMax lets you quickly and easily add powerful data processing to a Gocator system, achieving faster cycle times and enhancing overall inspection performance.

To accelerate sensors, GoMax takes over a portion of the sensor's data processing (data generation, 3D measurement, and control).



Relationship between GoMax (right) and a sensor (left)

GoMax is ideal for accelerating one or more Gocator snapshot sensors (such as Gocator 3506) or multi-sensor, buddied Gocator laser line profile sensor systems. A single GoMax unit can accelerate one or more sensors.



One or more GoMax devices accelerating one or more Gocator sensors

You can also add multiple GoMax units to a system, each unit accelerating one or more sensors, to scale up to faster speeds. Note however that you can't use multiple GoMax units to accelerate a single sensor.

🗋	GoMax supports digital, analog, and serial output from sensors. However, because output must be passed to the GoMax unit and then back to the sensor, network latency will have an impact on performance.

GoMax can accelerate GDK tools in custom firmware, with some limitations (for details, see *Understanding How GDK Tools Work with GoMax* on page 41). For information on developing GDK tools, see the reference documentation and samples provided with the library.

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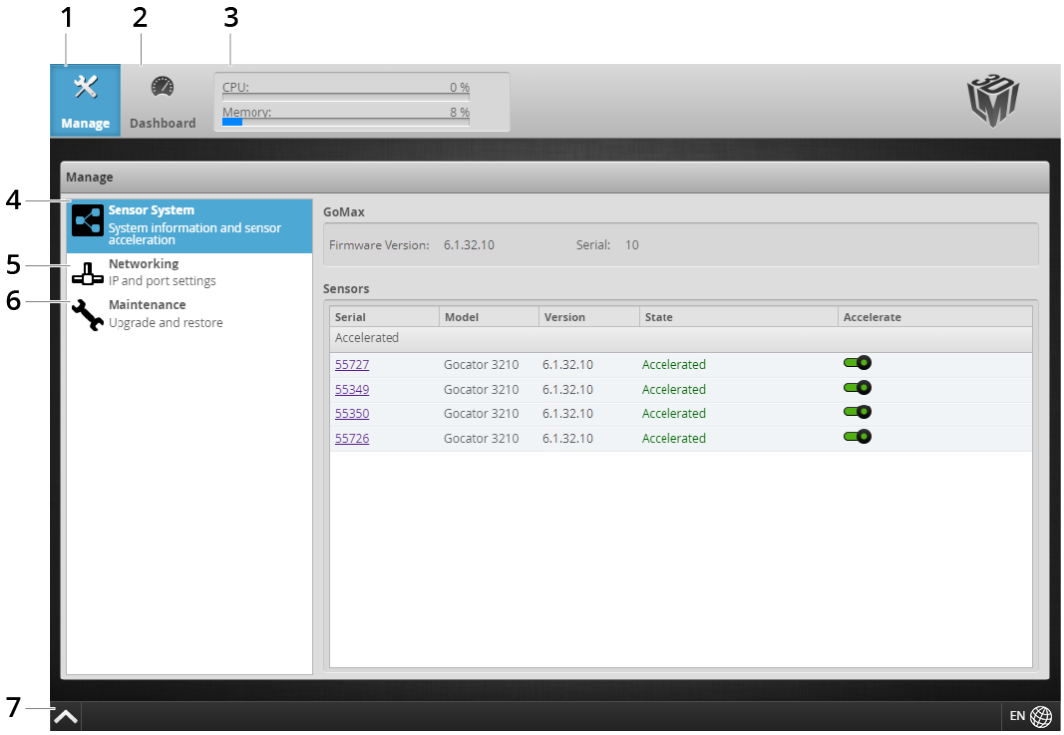
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The web interface on an accelerated sensor is identical to the interface on an unaccelerated sensor. The Ethernet-based output protocols (Gocator, EtherNet/IP, ASCII, and Modbus) are also identical to those found on an unaccelerated sensor, and are fully supported, with the exception of PROFINET.

Interface

You configure GoMax using an intuitive web interface.



Click the icons at the top of the web interface to switch between pages, which contain a high level grouping of settings and functionalities. In panels such as the **Manage** panel shown above, click the categories to the left to switch between lower level groupings of settings.

	Element	Description
1	Manage page	Contains settings and controls (in the **Manage** panel) to start and stop acceleration, change network settings, and perform maintenance on the GoMax unit. For more information, see the **Manage** panel categories listed below.
2	Dashboard page	Provides monitoring of the GoMax unit's health. For more information, see *Monitoring the GoMax Health Status* on page 36.
3	CPU Load and Speed	Provides important GoMax metrics.
4	Sensor System category	Lets you start and stop acceleration of sensors. For more information, see *Starting and Stopping Acceleration* on page 30.

	Element	Description
5	Networking category	Contains settings for configuring the network. For more information, see *Configuring Network Settings* on page 38.
6	Maintenance category	Lets you upgrade firmware and perform a factory reset of the GoMax unit. For more information, see *Upgrading and Restoring GoMax* on page 34.
7	Status bar	Displays log messages from the GoMax unit.

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Safety and Maintenance

The following sections describe the safe use and maintenance of GoMax vision accelerators.

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⚠	GoMax NX is *only* compatible with firmware 6.1 SR1 (firmware version 6.1.29.3) to 6.5. Loading an earlier firmware version will make the device unusable. The device will refuse to upgrade to Gocator 6.6 or later.

Electrical Safety

⚠	Failure to follow the guidelines described in this section may result in electrical shock or equipment damage.

Sensor systems that GoMax is connected to should be connected to earth ground
All sensors in the system should be connected to earth ground through their housing. All sensors should be mounted on an earth grounded frame using electrically conductive hardware to ensure the housing of the sensor is connected to earth ground. Use a multi-meter to check the continuity between the sensor connector and earth ground to ensure a proper connection.

Minimize voltage potential between system ground and sensor ground
Care should be taken to minimize the voltage potential between system ground (ground reference for I/O signals) and sensor ground. This voltage potential can be determined by measuring the voltage between Analog_out- and system ground. The maximum permissible voltage potential is 12 V but should be kept below 10 V to avoid damage to the serial and encoder connections.

Use the power supply provided with the unit
If the power supply or cords get damaged, contact LMI Technologies for a replacement.

Use care when handling powered devices
Wires connecting to the GoMax unit should not be handled while the unit is powered. Doing so may cause electrical shock to the user or damage to the equipment.

Cleaning and Maintenance

Keep heatsink fins clear and clean
To avoid overheating of the GoMax unit, make sure the unit's heatsink fins are clean and clear.

Environment

Avoid installing the GoMax unit in hazardous environments
To ensure reliable operation and to prevent damage to the GoMax unit, avoid installing the unit in locations

- that are humid, dusty, or poorly ventilated;
- with a high temperature, such as places exposed to direct sunlight;
- where there are flammable or corrosive gases;
- where the unit may be directly subjected to harsh vibration or impact;
- where water, oil, or chemicals may splash onto the unit;
- where static electricity is easily generated.

Ensure that ambient conditions are within specifications
The ambient operating temperature for GoMax units is as follows:

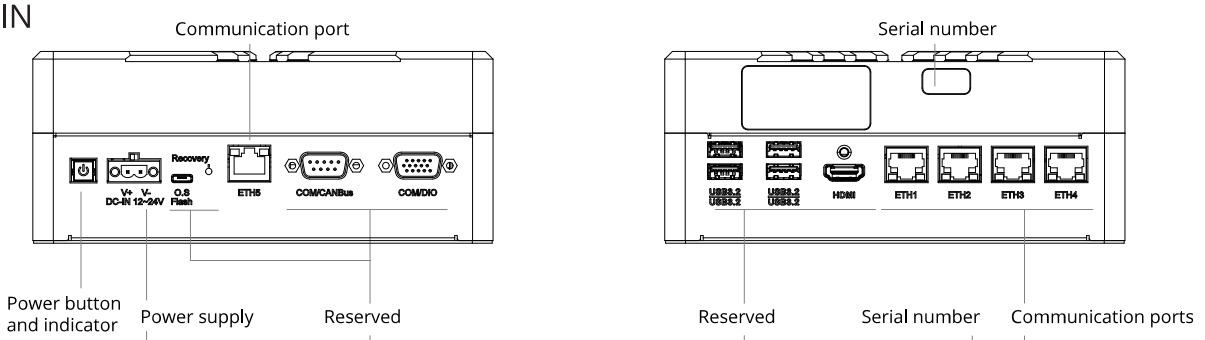
GoMax ORIN: Between -15 and 60 °C

GoMax ORIN+: Between -20 and 55 °C

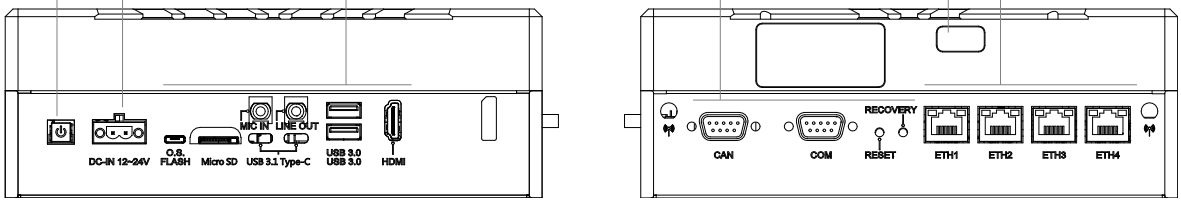
Hardware Overview

The following illustrates the physical features of GoMax ORIN and ORIN+ units.

ORIN



ORIN+



Item	Description
HDMI	Reserved for future use.
ETH1	Ethernet port for PCs and PLCs *only*. You can directly connect a PC for the initial configuration or connect the GoMax unit to the sensor system via a switch. By default, this port's IP address is 192.168.1.6.
ETH2 ETH3 ETH4 ETH5 (ORIN only)	Ethernet ports. You can connect sensors to these ports. The following are their default IP addresses. ETH2: 192.168.2.6 ETH3: 192.168.3.6 ETH4: 192.168.4.6 ETH5 (ORIN only): 192.168.5.6
Power Button and Indicator	Powers the device on and off. Illuminated when power is applied (green).
DC IN 12-24V	Accepts a Phoenix connector for the provided power supply.
OS Flash	USB C port. Reserved for future use.
Micro SD (ORIN + only)	Reserved for future use.
COM / CANBus	Reserved for future use.
COM / DIO	Reserved for future use. (Digital outputs on *sensors* are supported and configurable by

Item	Description
	GoMax.)
MIC IN LINE OUT (ORIN+ only)	Reserved for future use.
USB ports	Reserved for future use.
Ant	Reserved for future use.
Serial Number	Unique sensor serial number.
Recovery button	Reserved.

Protocol Support

GoMax supports protocols for communicating with sensors over Ethernet (TCP/IP) and serial output.

> The Gocator protocol is always on and its output is always available, regardless of the output you choose. This allows simultaneous connections via an SDK application and a PLC, letting you for example archive or display scan data on a PC while controlling equipment with a PLC.

> GoMax does not support the PROFINET protocol.

Protocols available over Ethernet

- Gocator
- Modbus
- EtherNet/IP
- ASCII

For an overview of the Ethernet ports used by sensors, see *Required Ports* in the user manual of your sensor.

Protocols available over serial

- ASCII
- Selcom

Adding GoMax to a Sensor System

LMI recommends adding GoMax to a sensor system that is already fully set up and configured. For information on setting up a sensor system, see the user manual of the sensors used in the system.

Follow the instructions in the following sections to install and perform the initial configuration of a GoMax unit.

	Sensors you intend to accelerate using GoMax ORIN or ORIN+ must be running firmware firmware 6.4 or later.

Connecting Power

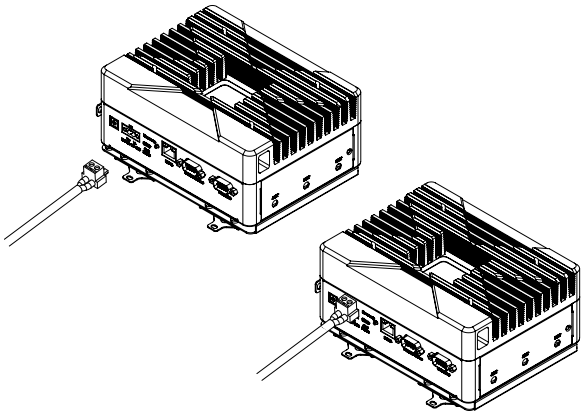
Power is provided by the included power supply. The plug type depends on the region in which you are using the unit.

⚠	Use *only* the provided power supply with the GoMax unit. Using a higher voltage power supply will damage the unit.

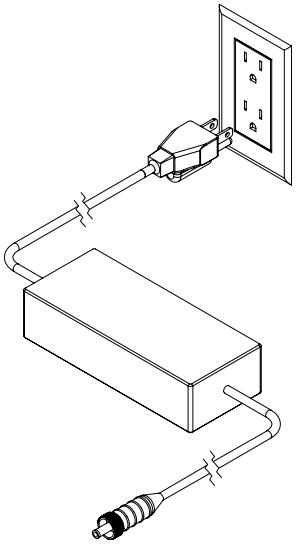
LMI recommends powering up the GoMax unit and performing the initial configuration of the unit before physically connecting it to the sensor system.

To connect power:

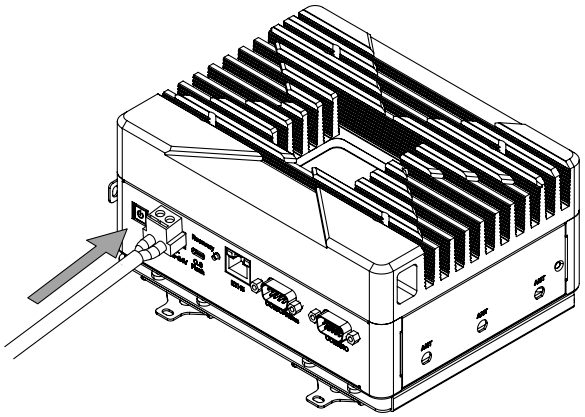
1. Connect the power supply connector to the unit.



2. Plug the power adapter into an available electrical outlet.



3. Press the power button.



An LED indicator on the unit lights when power is applied.

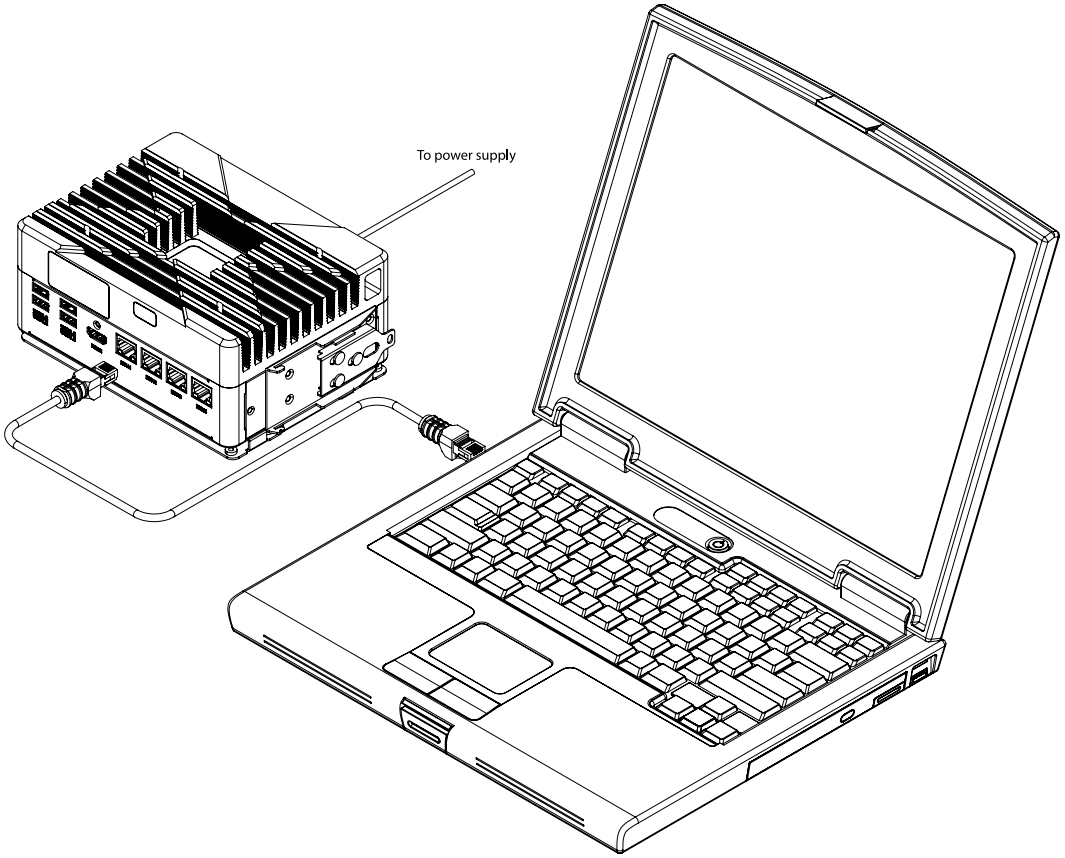
The unit is ready for initial configuration (setting an IP address).

Setting the IP Address

Each GoMax unit and Gocator sensor on the sensor system network must have a unique IP address. By default, the IP addresses of the GoMax unit's Ethernet port is set to 192.168.1.6.

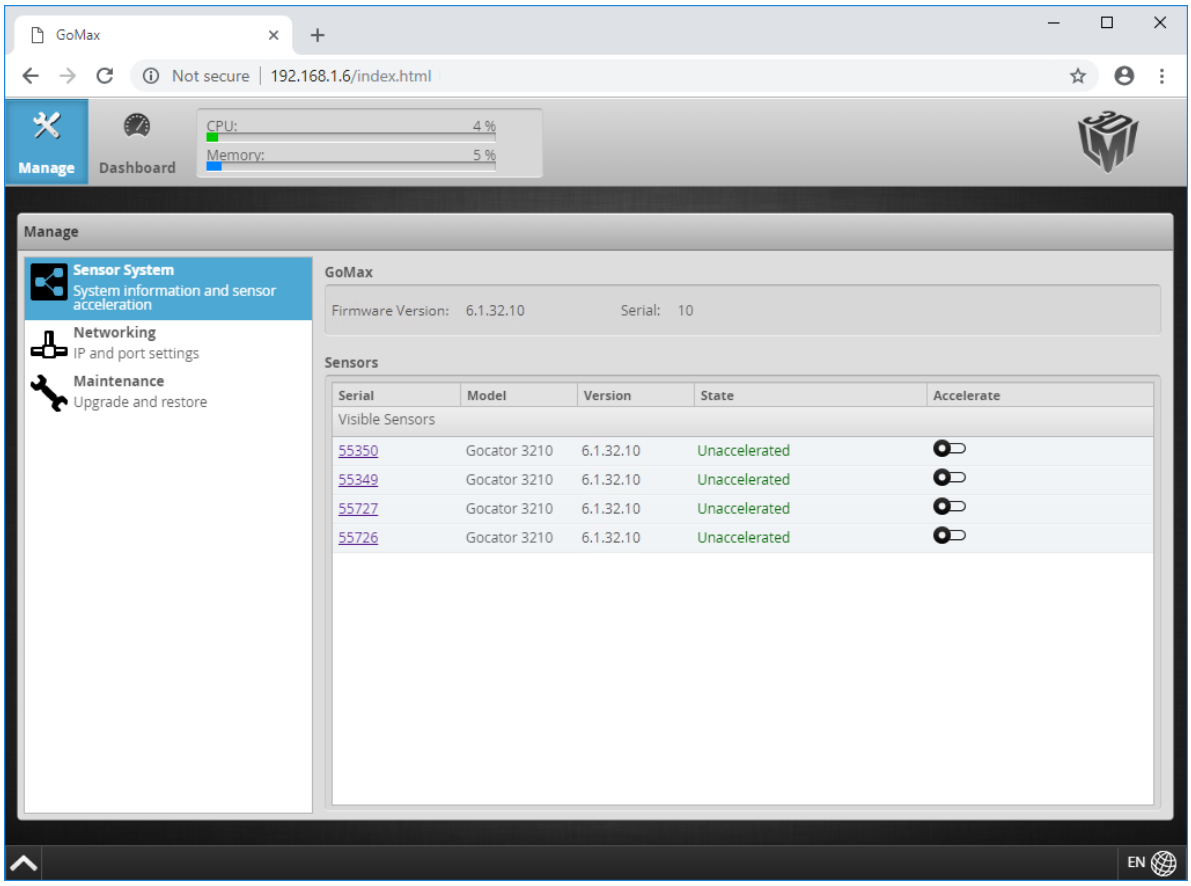
To set the IP address of a GoMax unit:

1. Using an Ethernet cable, first connect a computer directly to the ETH1 port on the GoMax unit.



2. On the computer, launch an Internet browser and navigate to 192.168.1.6.

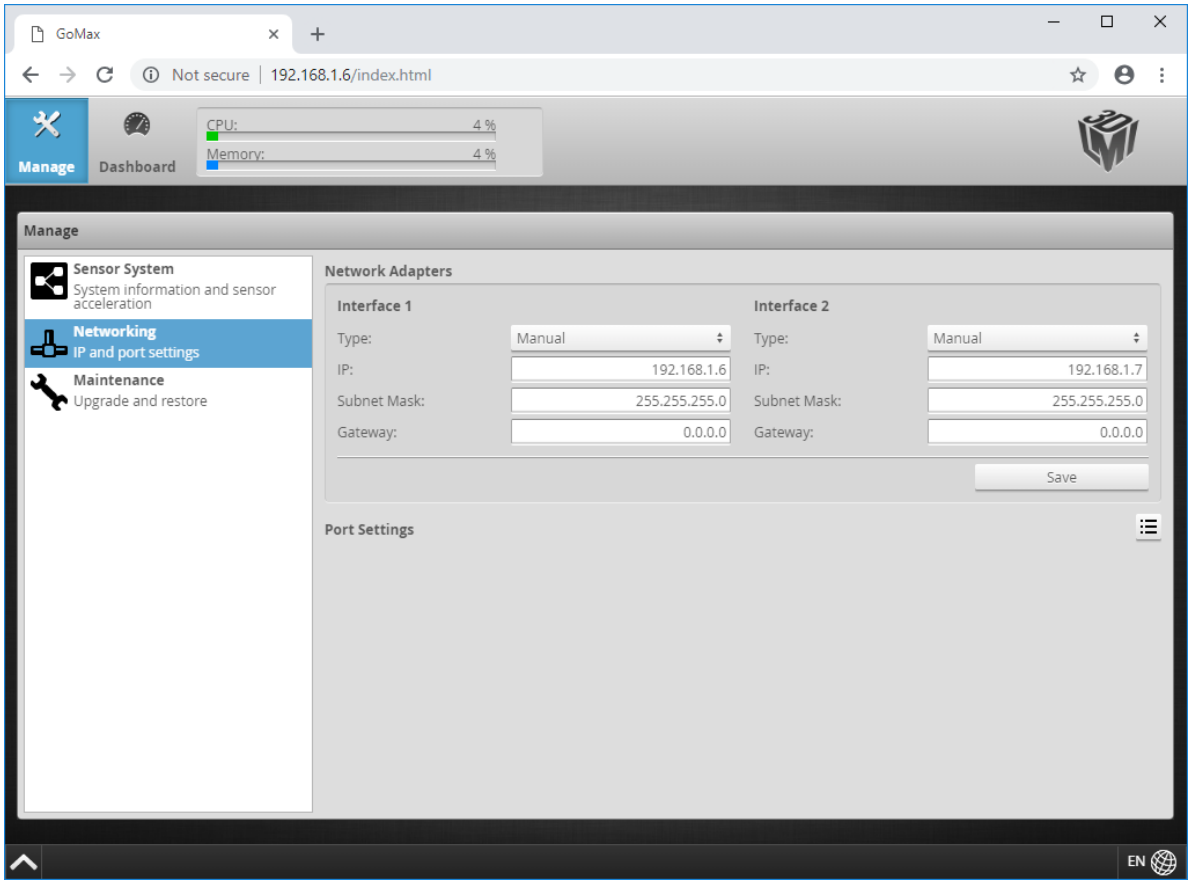
   The GoMax web interface is displayed.



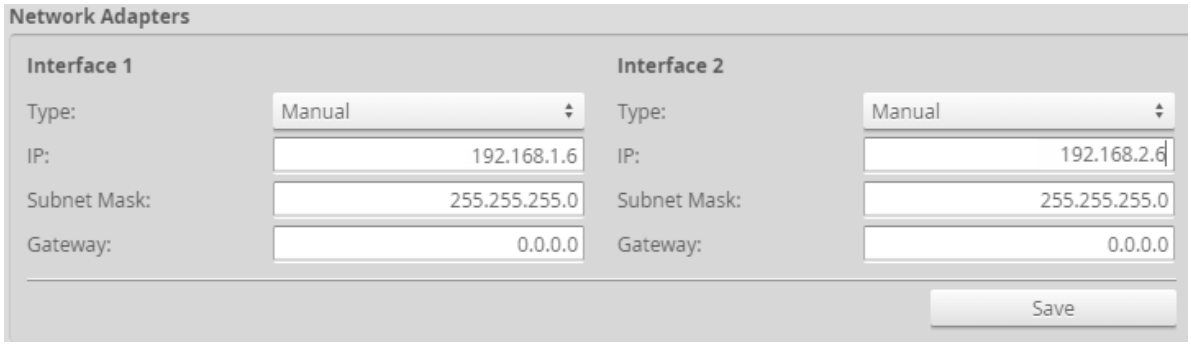
If you can't connect to the GoMax unit, or if you don't know what the unit's IP address is, follow the instructions in *Discovering a GoMax IP Address* on page 19.

3. In the **Manage** panel, click the **Networking** category.

The **Networking** category settings are displayed.



4. Under **Interface 1**, set the IP address and click **Save**.



The GoMax unit power cycles after you confirm you want to do this. Changing network settings disconnects the GoMax unit and stops the acceleration of any accelerated sensors.

After the GoMax unit restarts, its IP addresses are changed.

5. Disconnect the laptop from the GoMax unit.

Discovering a GoMax IP Address

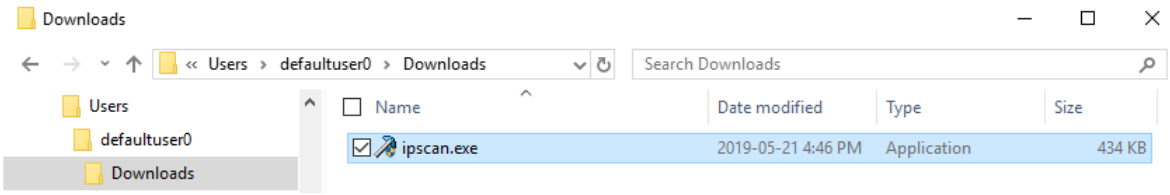
If you can't find or connect to a GoMax unit, LMI recommends using an IP scanner to find the unit on your network. LMI recommends "Free IP Scanner" for this purpose, which you can download from http://www.eusing.com/ipscan/free_ip_scanner.htm.

After downloading the software and noting where you saved it, follow the instructions below.

> Make sure the GoMax unit is connected to your network, or connect to it as shown in *Setting the IP Address* on page 16.

To discover the IP address of a GoMax unit with Free IP Scanner:

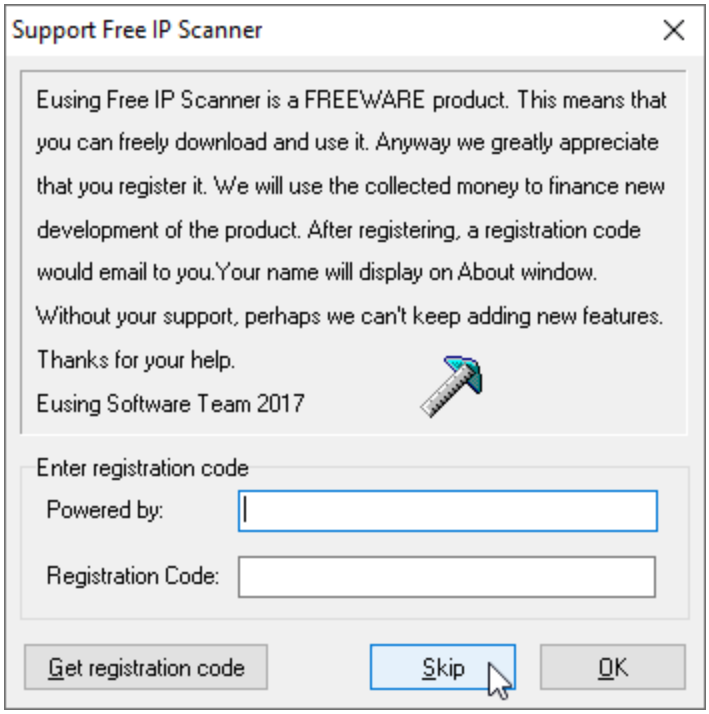
1. Launch the IP scanner by double-clicking `ipscan.exe`.



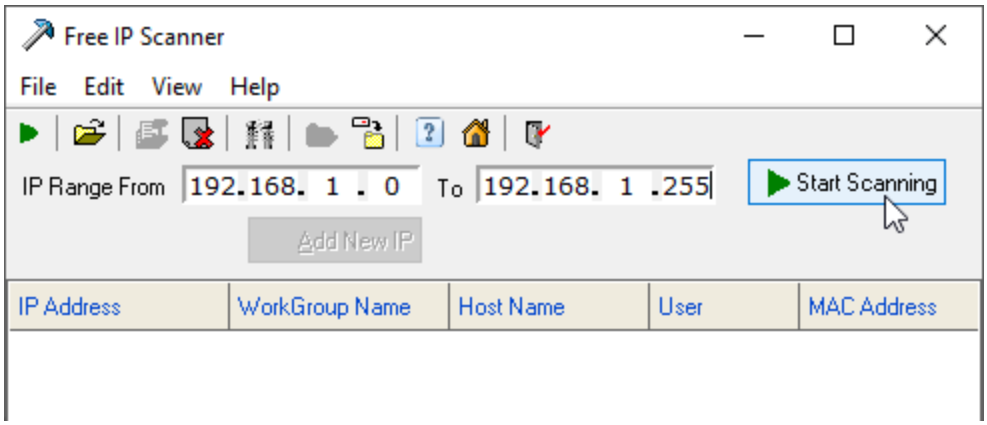
   The application launches immediately. (The executable is not an installer.)

2. If User Account Control asks whether you want to allow the application to make changes to your device, click **Yes**.

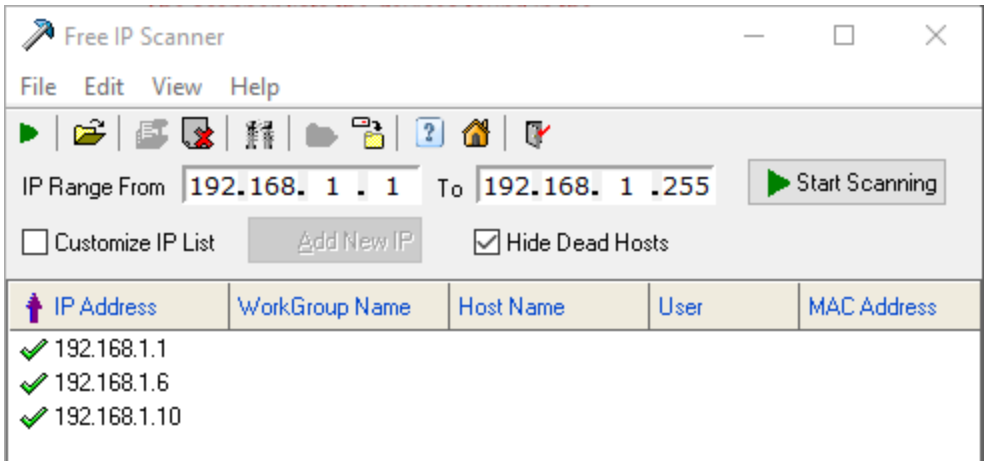
3. When Free IP Scanner is running, in the dialog that displays, click **Skip**.



4. Set the IP range you expect the unit to be in, and then click **Start Scanning**.



The scanner lists the devices found in the range you specify.



5. Make note of the GoMax unit's IP address in the list of discovered devices, and use that address to connect to the unit.

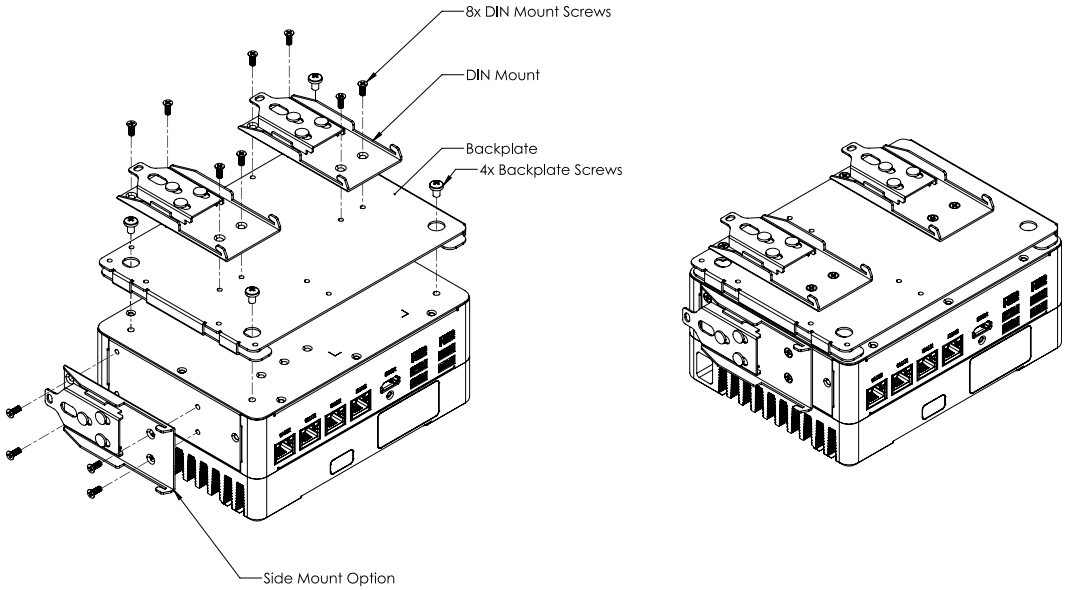
Mounting

You can mount GoMax units to a DIN rail or directly to a wall or frame using the provided mounting hardware.

Using DIN Rail Clips

LMI provides a DIN rail clip plate, a DIN rail clips, and screws to mount the GoMax unit on a DIN rail.

The plate lets you mount the unit in different orientations, using different sets of standoffs. Attach the DIN rail clip plate to the back of the GoMax unit, and attach the DIN rail clip to the plate in the required orientation. You can also mount the DIN rail clip on the side of the unit.



For dimensions of the unit with the DIN rail clip attached, see *Specifications* on page 42.

Mounting to a Wall or Frame

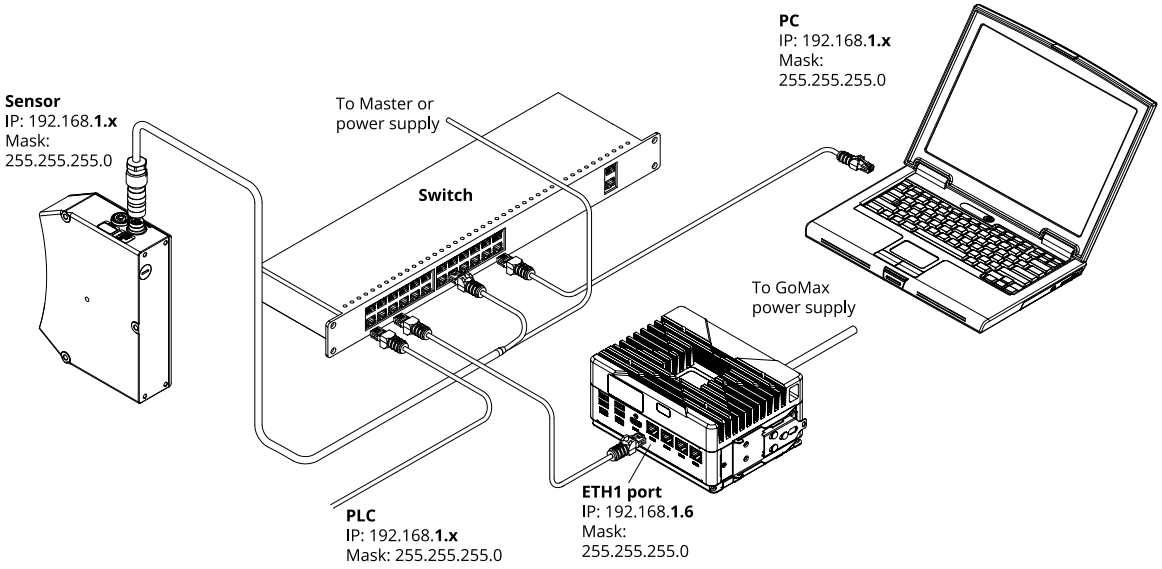
LMI also provides wall mount brackets to mount the GoMax unit directly on a wall or to a frame. To use the wall mount brackets, remove the DIN rail clip plate from the back of the unit, and attach the wall mount brackets to the back of the unit using the provided screws. Make sure that the unit is securely fastened to the wall.

Connecting GoMax to a Sensor System

GoMax provides a model-dependent number of Ethernet ports. You use one or more to connect the parts of your system (PCs, sensors, and PLCs) to the GoMax device. Depending on your application, you may need one or more switches.

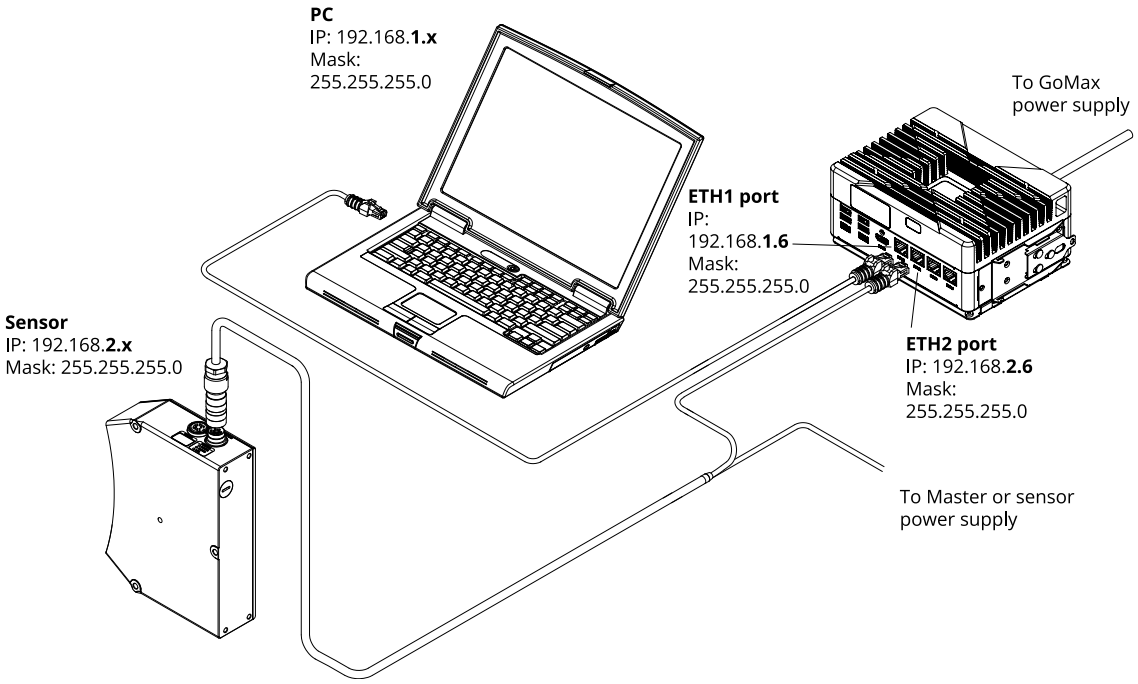
You can connect PCs and PLCs *only* to the ETH1 port. You can connect sensors to any Ethernet port. Note however that the ports must use different network IDs, for example *192.168.1.x* for PCs/PLCs and *192.168.2.x* for sensors. When sensors are connected to ETH2 and PCs and PLCs are connected to ETH1, the sensors are isolated from the rest of the devices in the system, and a PC will not be able to see a sensor when it is not accelerated. For the PC to see the sensor, you will need to connect it directly to the PC, and temporarily change the network ID of one of the devices (preferably the PC) so that they match. For information on setting the IP addresses of GoMax, see *Setting the IP Address* on page 16. For information on setting a sensor's IP address, see the sensor's user manual. For more information on using isolated layouts, see below.

The easiest way to connect and access a GoMax device is using a switch, and connecting all devices to the switch. This avoids isolating the PC and sensor, as well any PLCs you may be using.

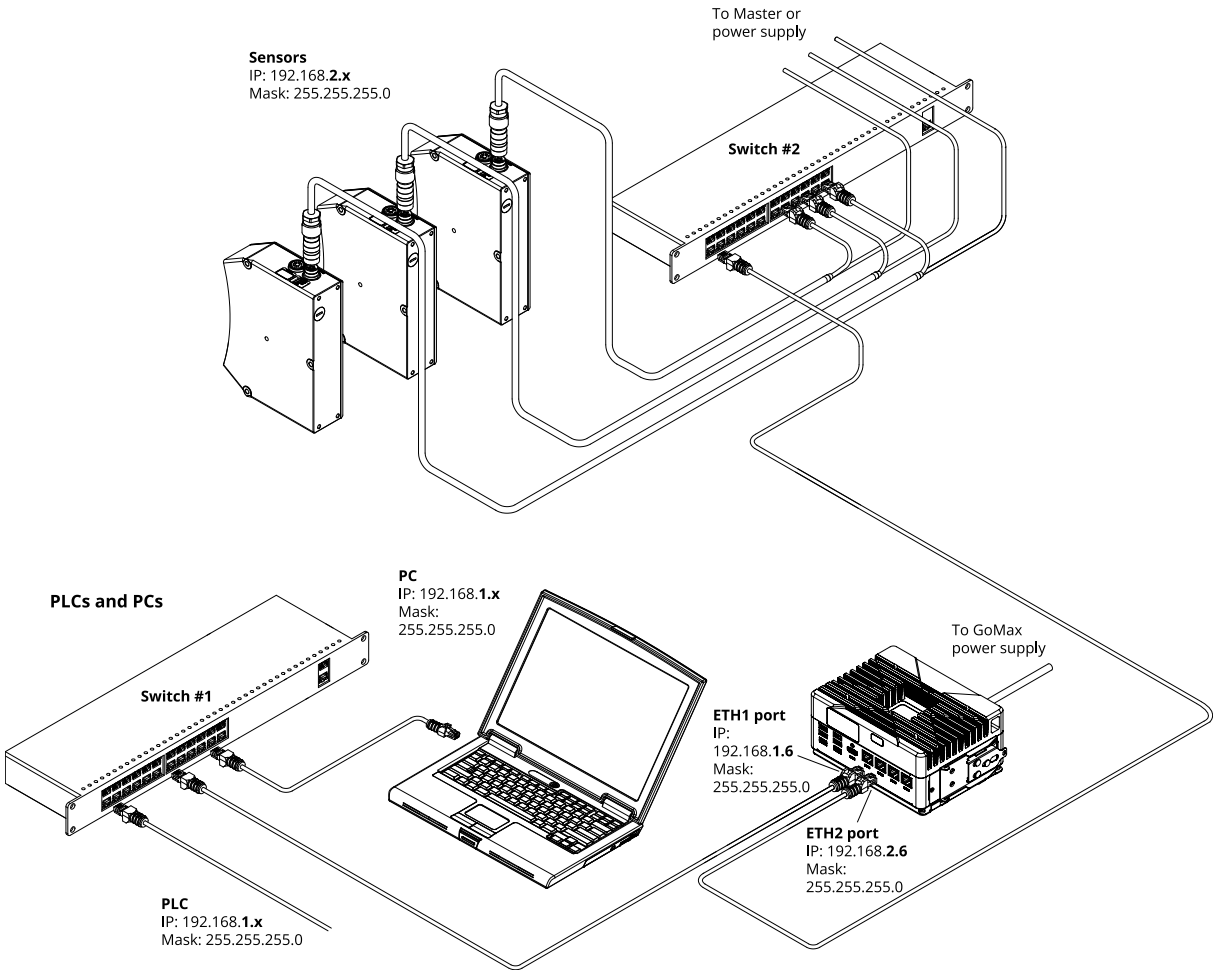


Using an isolated network can be useful if you need to control the visibility of the sensors over the network or adhere to network requirements or regulations. To access an unaccelerated sensor from the PC, you'll have to temporarily unplug it from ETH2 and connect it directly to the PC (changing the PC's network interface to match the sensor's); you'll then have to change it back after you've finished.

For simple systems (a single sensor and a PC, but no PLCs), you can connect the PC directly to the ETH1 port, and connect the sensor directly to ETH2.



If you need to isolate multiple sensors from other parts of a network, you can use a second switch. Remember to connect PLCs and PCs *only* to the ETH1 port. Connect sensors to the ETH2 port.



Using GoMax

The following sections describe how to access and configure GoMax using its web interface, how to start and stop sensor acceleration, and more.

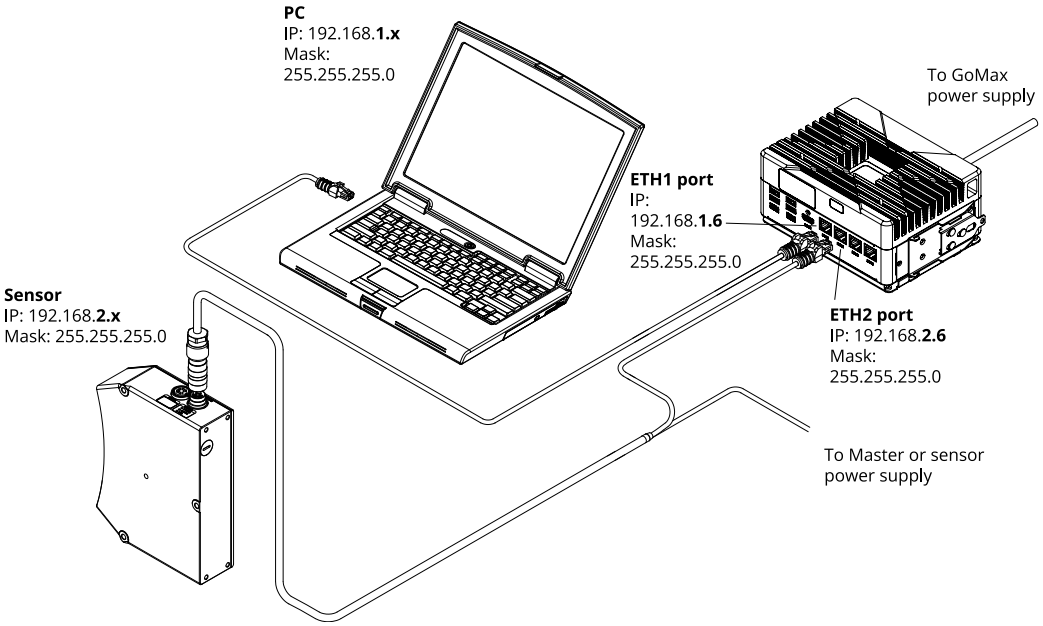
Accessing GoMax

To access the GoMax web interface, you can use any web browser. However, because there are currently some limitations when using the Microsoft Edge browser with the Gocator sensor web interface, you may wish to avoid this browser, to avoid inadvertently using it when configuring Gocator sensors.

If you are unable to connect to a GoMax unit, see *Discovering a GoMax IP Address* on page 19.

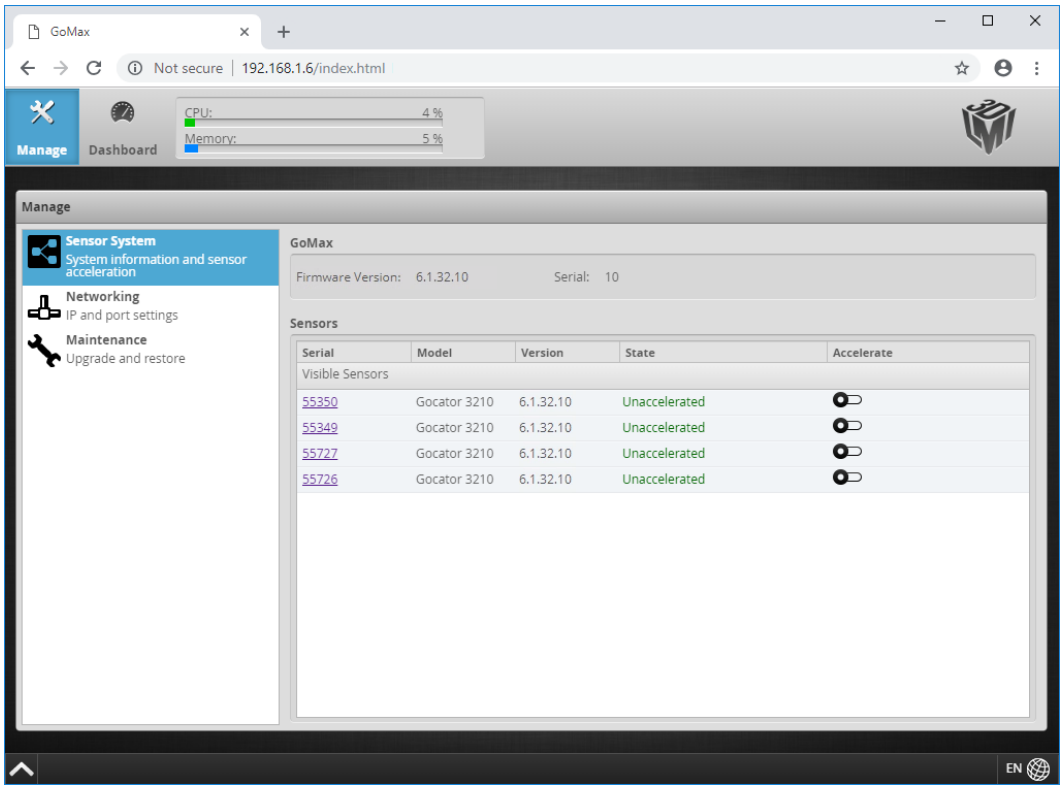
To access a GoMax unit:

1. If the GoMax unit is not powered up, connect the power supply to the unit and turn it on. For more information, see *Connecting Power* on page 14.
2. Connect a computer to the switch using an Ethernet cable.



3. On the computer, using a web browser, connect to the GoMax web interface using the unit's IP address.

   The GoMax web interface is displayed. The **Sensor System** category is preselected in the **Manage** panel.



If necessary, you can set the ports GoMax uses for the accelerated sensors; for more information, see *Configuring Network Settings* on page 38.

You are now ready to start accelerating sensors; for more information, see *Starting and Stopping Acceleration* on page 30.

Changing the Interface Language

The language button on the right side of the status bar at the bottom of the interface lets you change the language of the interface.

To change the language:

1. Click the language button at the bottom of the web interface.

2. Choose a language from the list.

   The interface reloads on the page you were working in, displaying the page using the language you chose. The sensor state is preserved.

Starting and Stopping Acceleration

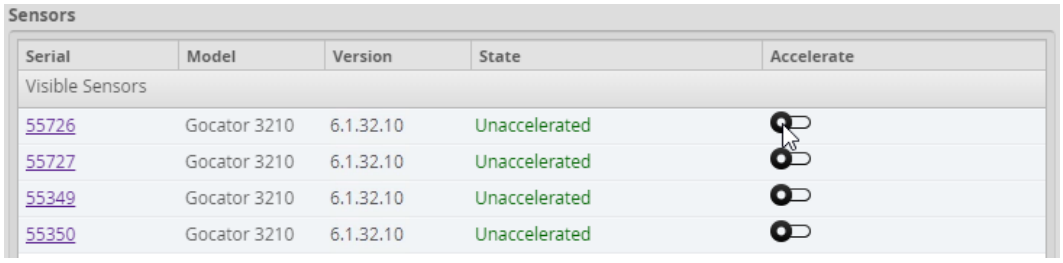
After you have installed and set up a GoMax unit, it is ready to start accelerating one or more sensors with it.

> The firmware version of the GoMax unit and the sensors you want to accelerate must match. Sensors whose firmware doesn't match the GoMax firmware are indicated by "Firmware Mismatch" in the GoMax interface (in the **Sensor System** category on the **Manage** page).
>
> For information on upgrading or changing the firmware of the GoMax unit, see *Upgrading and Restoring GoMax* on page 34.
>
> For information on upgrading or changing the firmware of a Gocator sensor, see the user manual of that sensor.

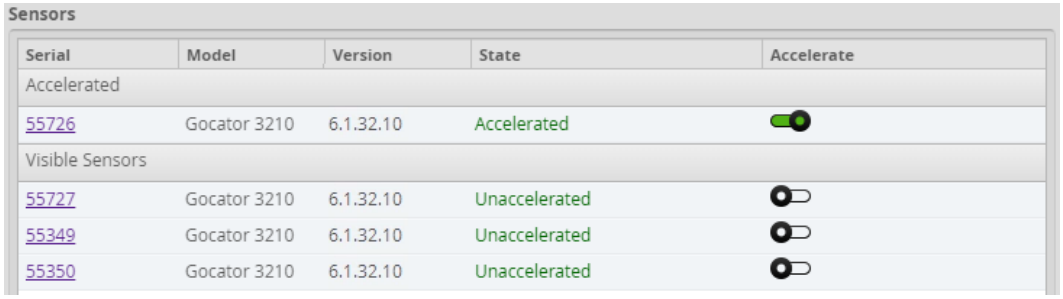
> GoMax can accelerate multi-sensor (buddied) systems. However, only the Main sensor is displayed in the list of sensors that you can accelerate.

To accelerate a sensor:

1. Using a web browser, connect to the GoMax unit using its IP address.
2. In the **Manage** page, under **Sensors**, in the **Visible Sensors** list, click the toggle to the right of the sensor you want to accelerate.



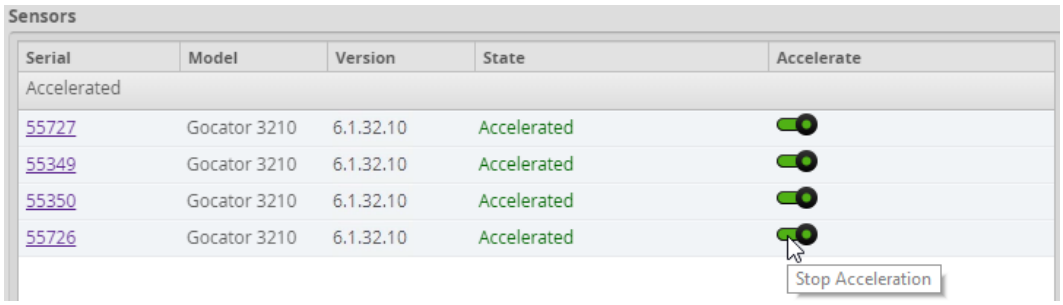
   The sensor is now accelerated and appears in the **Accelerated** list.



   For information on accessing the accelerated sensor, see *Accessing Accelerated Sensors* on page 32.

To stop the acceleration of a sensor:

- In the **Manage** page, under **Sensors**, in the **Accelerated** list, click the toggle to the right of the sensor for which you want to stop acceleration.



The sensor is no longer accelerated. To access the sensor, use the IP address as defined in the sensor's networking settings.

Accessing Accelerated Sensors

After GoMax starts accelerating a sensor, you can access and configure it in two ways: via web browser and via SDK applications.

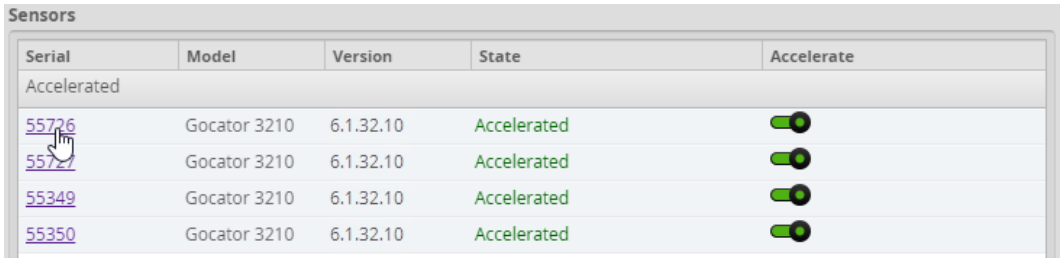
> GoMax does not support the PROFINET protocol. For more information on PROFINET, see the Gocator user manual of your sensor.

Via a Web Browser

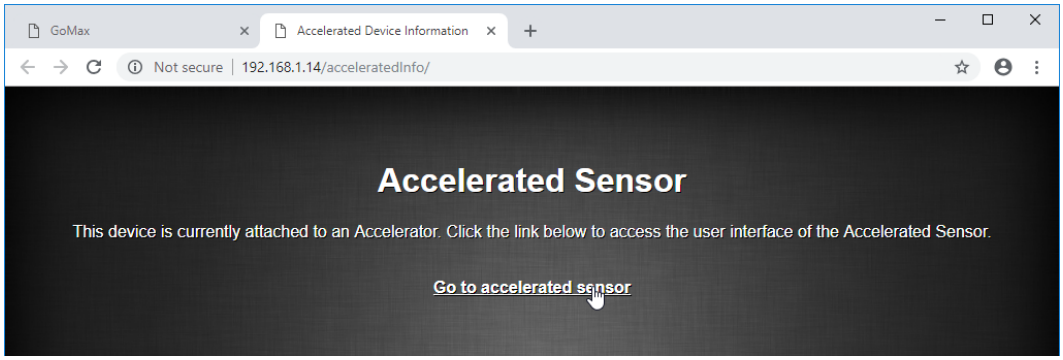
When you access an unaccelerated sensor via a web browser, you use the IP address of the sensor defined in the sensor's networking settings. But after a sensor has been accelerated, you can access it via the IP address of the GoMax unit and a port defined by GoMax, which are listed in the **Port Settings** section in the **Networking** category on the **Manage** page (for more information on this, see *Configuring Network Settings* on page 38). However, the easiest way to access a sensor is via the GoMax interface.

To access a sensor via the GoMax interface:

1. Using a web browser, connect to the GoMax unit.
2. On the Manage page, under **Sensors**, in the **Accelerated** list, click the sensor's serial number to the left.

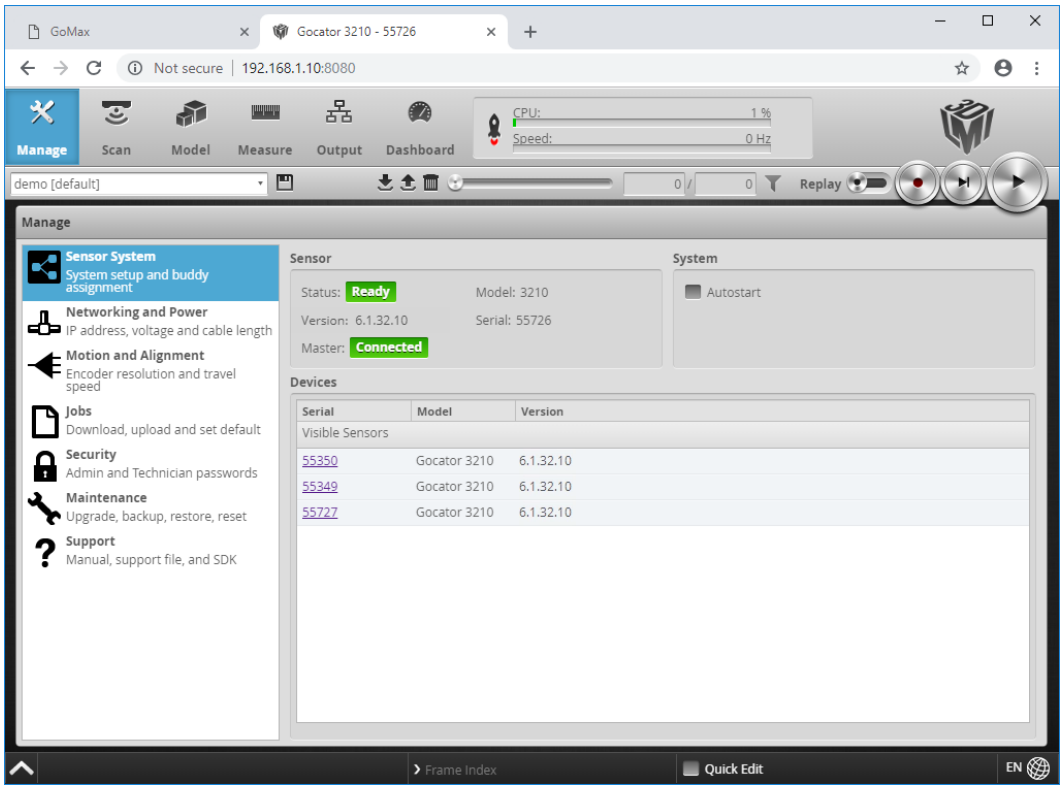


A page providing a link to the accelerated sensor's web interface opens in a new tab.



3. Click the link in the "Accelerated Device Info" page.

   The web interface of the accelerated sensor is displayed.



Configure the sensor as you normally would. For information on configuring a sensor, see the sensor's user manual.

Via an SDK Application

SDK applications can access accelerated sensors in the same way as with physical sensors, controlling them and receiving messages. In SDK applications built using version 5.1 of the SDK or later, you only need the serial number of an accelerated sensor to access it. In SDK applications built using SDK versions before 5.1, you must specify the port used to access the sensor; for information on setting and viewing the port settings in GoMax, see *Configuring Network Settings* on page 38.

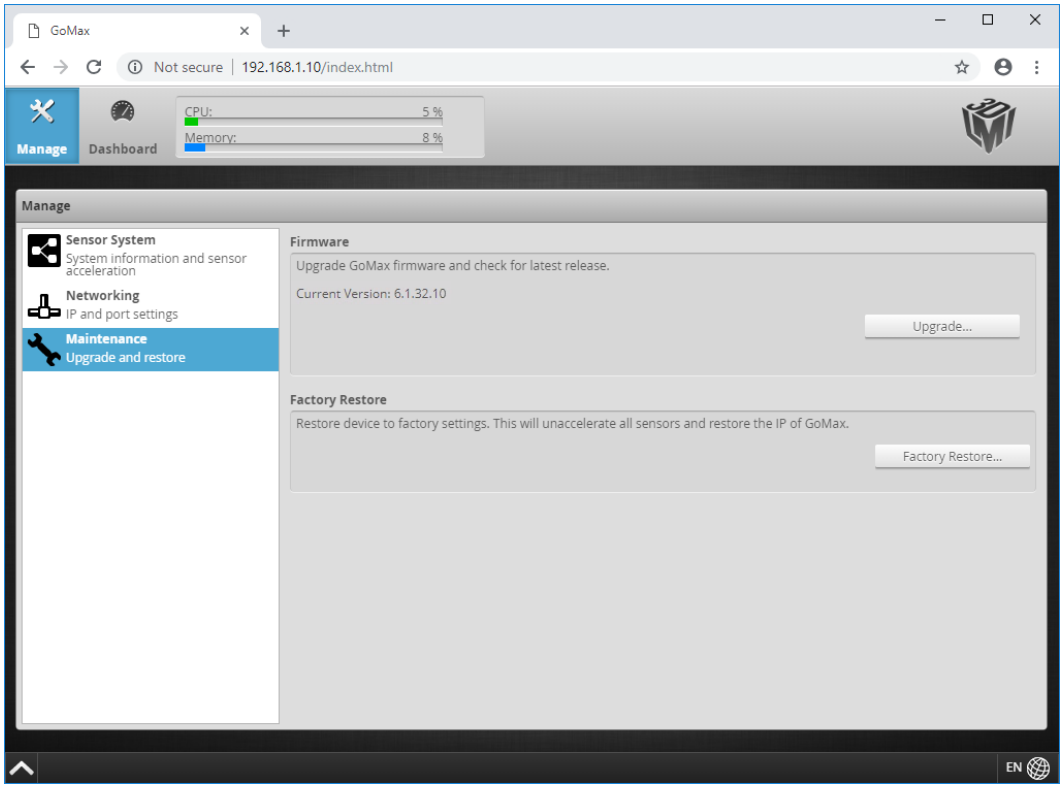
For more information on accessing accelerated sensors via the SDK, see the SDK reference documentation.

For general, introductory information on the SDK, see the sensor's user manual.

Upgrading and Restoring GoMax

⚠	GoMax ORIN and ORIN+ are *only* compatible with Gocator firmware 6.4 and later, or GoPxL 1.1.51.x and later.

You can upgrade the GoMax firmware to get the latest features or bug fixes in the **Maintenance** category on the **Manage** page. If you have developed a custom firmware containing GDK tools, you upload the firmware to the GoMax unit from here. You can also perform a factory restore to return the device to factory defaults from the **Maintenance** category.



GoMax firmware is available from the LMI Download Center (https://downloads.lmi3d.com/).

🗋	The GoMax firmware and the sensor firmware must match in order for you to be able to accelerate a sensor.

🗋	Upgrading the GoMax unit or performing a factory restore stops acceleration.

🗋	To upgrade sensor firmware, you must do so from the Maintenance category of the *sensor's* web interface.

⚠	Do NOT disconnect power or the network connection from the GoMax unit while you are upgrading it.

To upgrade the GoMax firmware:

1. Go to the **Manage** page and click the **Maintenance** category.

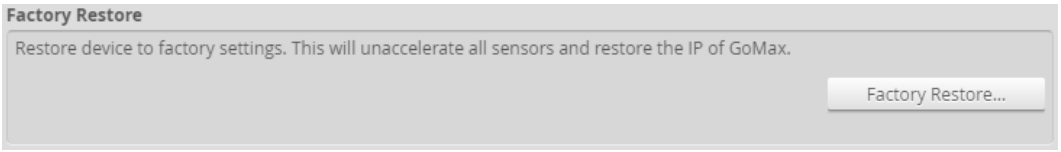
2. Click **Upgrade...** in the **Firmware** section.



3. Locate the firmware file you downloaded from the website in the **File** dialog and then click open.
4. Wait for the upgrade to complete.
   After the firmware upgrade is complete, the GoMax unit will restart.

To restore the GoMax unit:

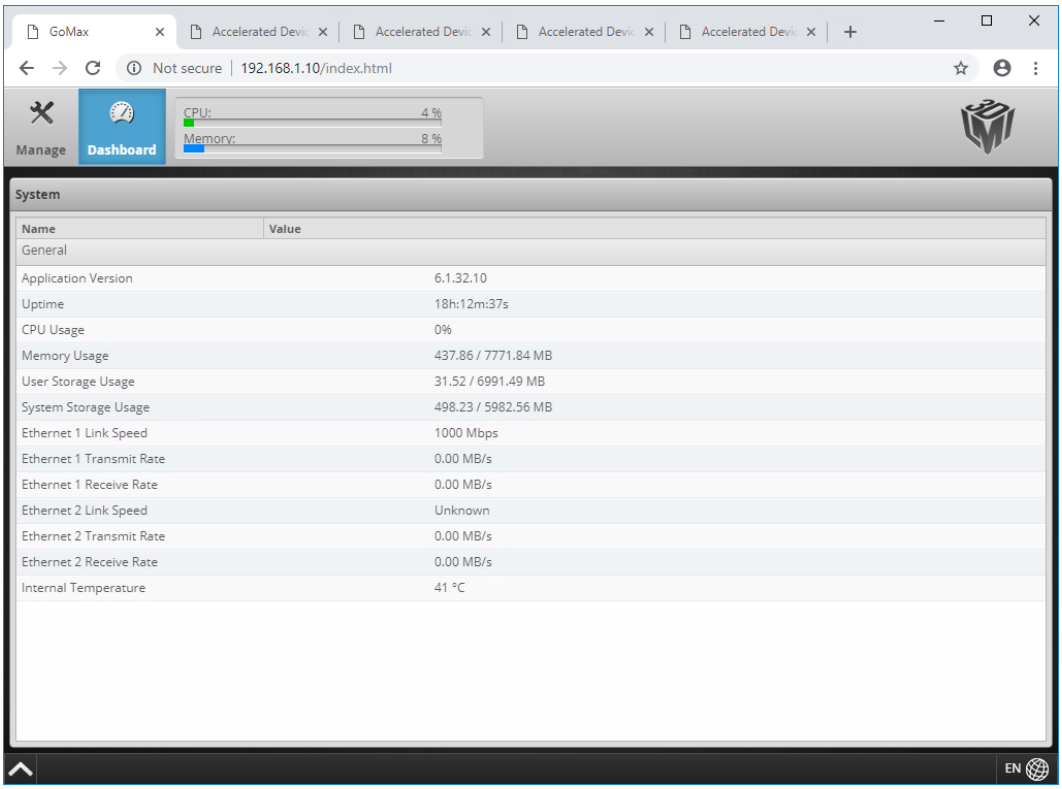
1. Go to the **Manage** page and click the **Maintenance** category.
2. Click **Factory Restore...** in the **Factory Restore** section.



   The GoMax unit is restored to factory defaults.

Monitoring the GoMax Health Status

The Dashboard page displays information related to the GoMax unit.



The following state and health information is available in the **System** panel on the **Dashboard** page:

Dashboard General System Values

Name	Description
Application Version	The GoMax firmware version.
Uptime	Length of time since the GoMax unit was power-cycled.
CPU Usage	The maximum usage of any of the six individual GoMax CPU cores. For example, this indicator will show 100% when only one of the six cores is at 100% usage.
Memory Usage	The amount of memory used by the GoMax unit (MB used / MB total available).
User Storage Usage	The amount of user storage used on the GoMax unit (MB used / MB total available).
System Storage Usage	The amount of system storage used on the GoMax unit (MB used / MB total available).
Ethernet {n} Link Speed	Speed of the Ethernet link between GoMax Ethernet {n} port and the device it is connected to (sensor or switch).
Ethernet {n} Transmit Rate	The total outgoing data rate between GoMax Ethernet {n} port and the device it is connected to (sensor or hub).
Ethernet {n} Receive Rate	The total incoming data rate between GoMax Ethernet {n} port and the device it is

Name	Description
	connected to (sensor or hub).
Internal Temperature	Internal temperature of the GoMax unit.

Configuring Network Settings

You configure network settings of GoMax from the **Networking** category in the **Manage** panel, on the **Manage** page. This category lets you do the following:

- Set the GoMax unit's IP address.
- Modify or view the ports that SDK applications should use for communication and control of the accelerated sensors in the system.

Setting the IP Address

Before configuring anything else on the GoMax unit, you should ensure that its IP address does not conflict with any other device (other GoMax units or Gocator sensors) on the sensor system. For more information on this, see *Setting the IP Address* on page 16.

Configuring the GoMax Ports

When a GoMax unit is accelerating a sensor, you access the accelerated sensor not by its internal IP address, but rather by accessing the IP address of the GoMax unit, on a port defined by GoMax. Typically, you can leave the ports at their defaults: you only need to modify the ports if non-default ports have been set

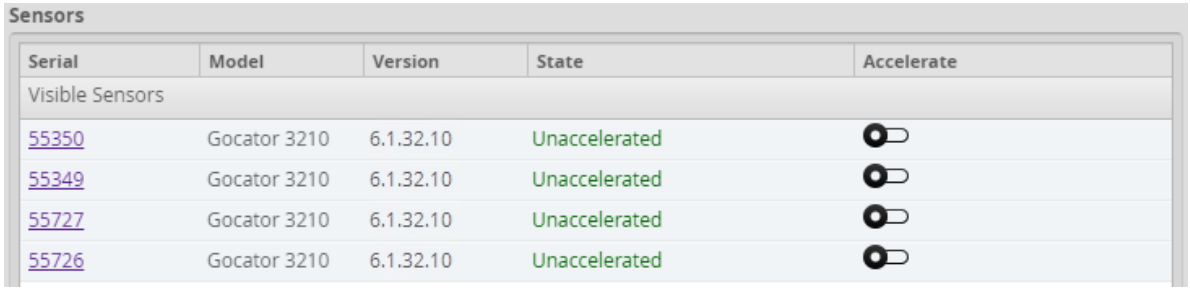
Furthermore, you can access the web interface of the accelerated sensors via the GoMax web interface, so there is no need to remember the accelerated sensor's IP address.

In some situations, for example, if you need to adapt ports to an existing SDK application, you may need to modify the ports. Otherwise, if you are in the process of developing an SDK application, you can consult the port assignments for each accelerated sensor by clicking the accelerated sensors in the list of accelerated sensors.

The **Port Settings** section only lets you define the port range GoMax can use to assign ports. GoMax automatically assigns the Control, Upgrade, Health, Public, and Web ports for all accelerated sensors in the defined range.

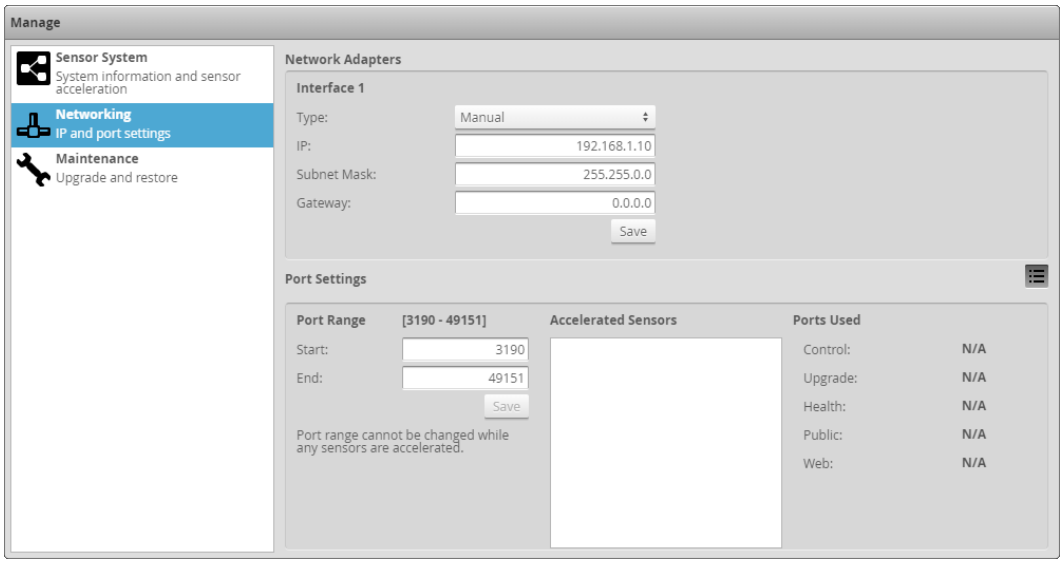
To set the port range:

1. On the **Manage** page, under the **Sensor System** category, make sure that acceleration of all sensors is stopped.



   You can't set the port range while GoMax is accelerating any sensor.

2. On the **Manage** page, under the **Networking** category, expand the **Port Settings** section.



3. In the **Start** and **End** fields, type the start and end ports of the range.
4. Click **Save**.

   GoMax will now assign ports using the defined range. Make sure to leave a range sufficiently large to accommodate all the sensors you intend to accelerate.

Understanding Auto Restart

Once a GoMax unit has started accelerating a sensor, it will try to re-accelerate the sensor in the following situations:

- The GoMax unit is power-cycled or otherwise loses power.
- If an accelerated sensor is disconnected and reconnected.

If the GoMax unit is accelerating multiple sensors, it will re-accelerate the sensors, one at a time, in the order that they appear in the web interface. For this reason, allow enough time for a sensor in the system to be accelerated before trying to access it.

Understanding How GDK Tools Work with GoMax

GoMax can accelerate custom firmware containing GDK-based tools. Currently however, GDK tool acceleration has the following limitations:

- The GPUs in GoMax are currently only supported on G3 sensors during data acquisition. This limits the degree of acceleration available.
- Third-party tools and libraries are not supported unless they compile for ARM8 and can be statically linked into the firmware.

These limitations will be removed soon, in future releases of the GoMax firmware.

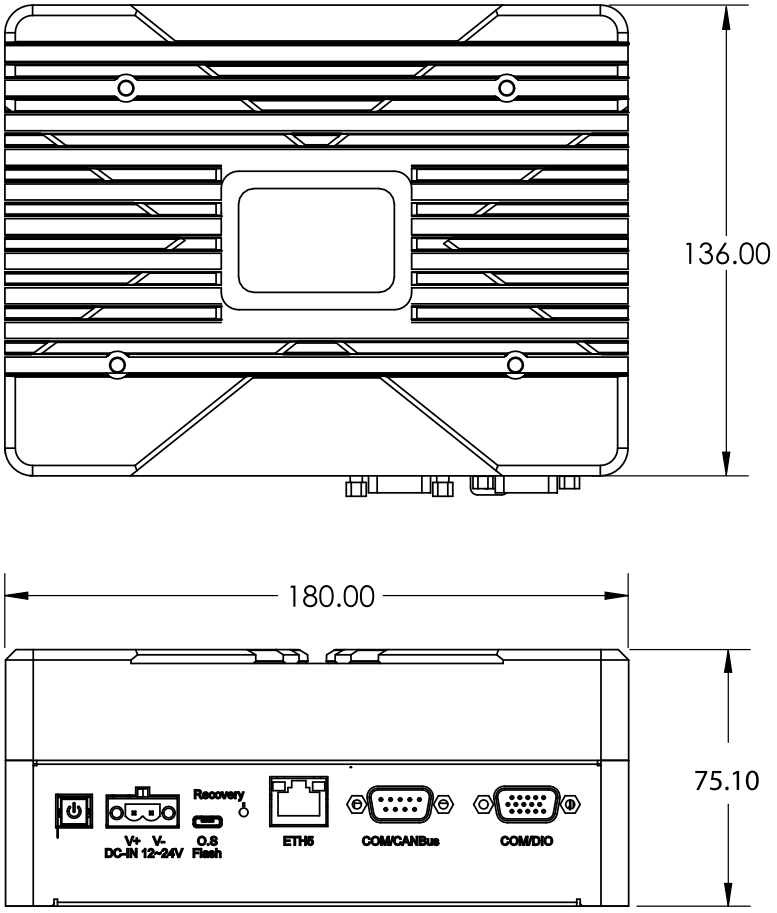
Custom firmware is uploaded via the upgrade functionality in the GoMax web interface, in the same way as standard firmware is. For information on upgrading the GoMax firmware, see *Upgrading and Restoring GoMax* on page 34.

For information on building a GoMax firmware target, see the GDK reference documentation and samples.

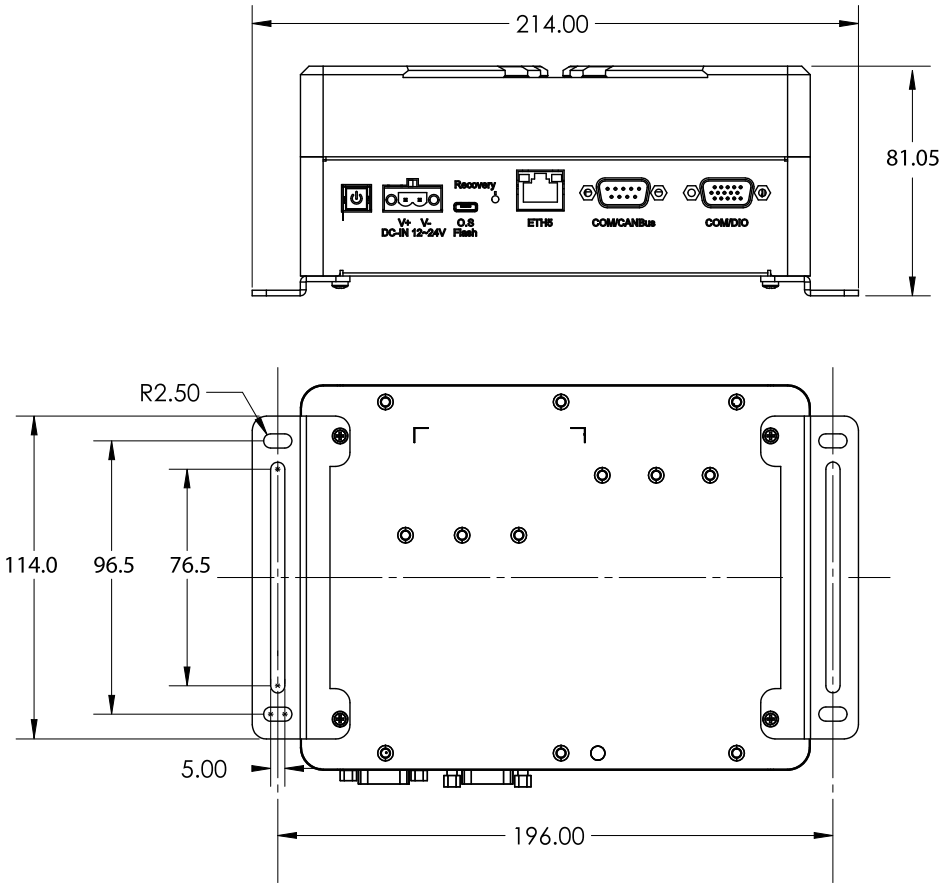
Specifications

Specifications	GoMax ORIN	GoMax ORIN+
GPU Platform	NVIDIA Jetson Orin NX	NVIDIA Jetson AGX Orin
Dimensions (L x W x H) (mm)	180 x 136 x 75	210 x 164 x 74
Weight (kg)	2.5	2.9
Operating Temperature (°C)	-15 - 60	-20 - 55
Certifications	CE, FCC, UKCA, KCC, RoHS, Reach	CE, FCC, UKCA, KCC, RoHS, Reach
Mounting	DIN rail, wall mounting	DIN rail, wall mounting
CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
Performance (tera-operations per second)	157	200
GPU	Ampere, 1024 CUDA cores, 32 Tensor cores	Ampere, 1792 CUDA cores, 56 Tensor cores
Memory	16 GB LPDDR5 onboard	32 GB LPDDR5 onboard
Storage (non-volatile)	128 GB SSD (~90 GB available as user storage)	512 GB SSD (~480 GB available as user storage)
Ethernet Ports	5x GigE	4x GigE
Power* (Max draw is without PoE)	+12 to +24 VDC, max 25W	+12 to +24 VDC, max 40W
Power Connector	Phoenix (2-pin terminal block)	Phoenix (2-pin terminal block)

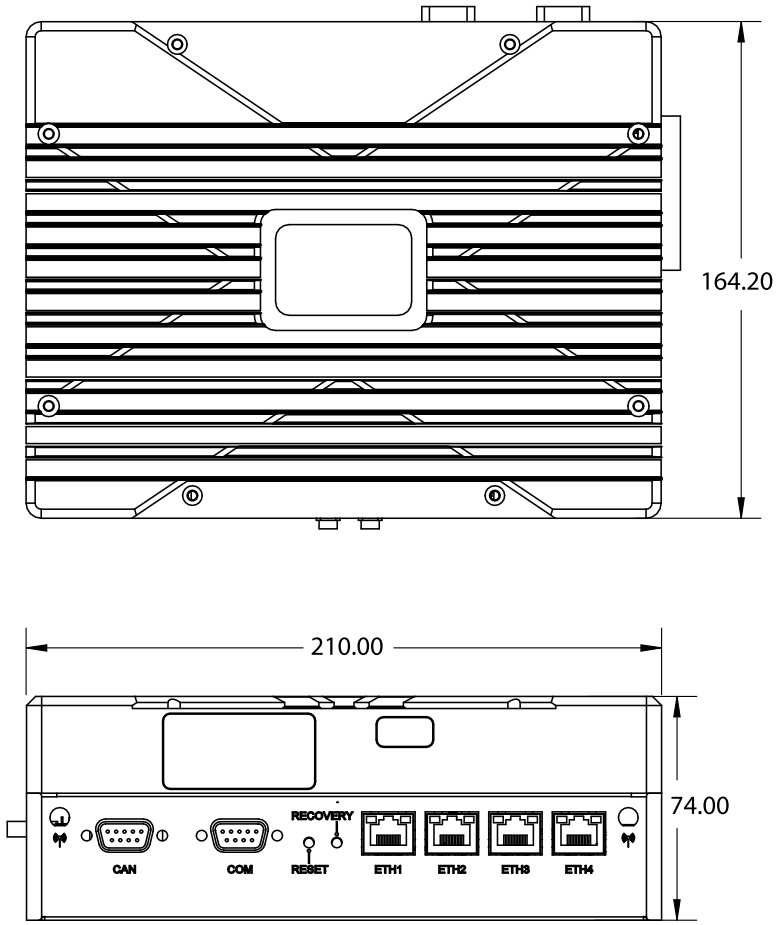
GoMax ORIN


136.00
180.00
75.10
Recovery
V+ V-
DC-IN 12~24V
O.S
Flash
ETH5
COM/CANBus
COM/DIO

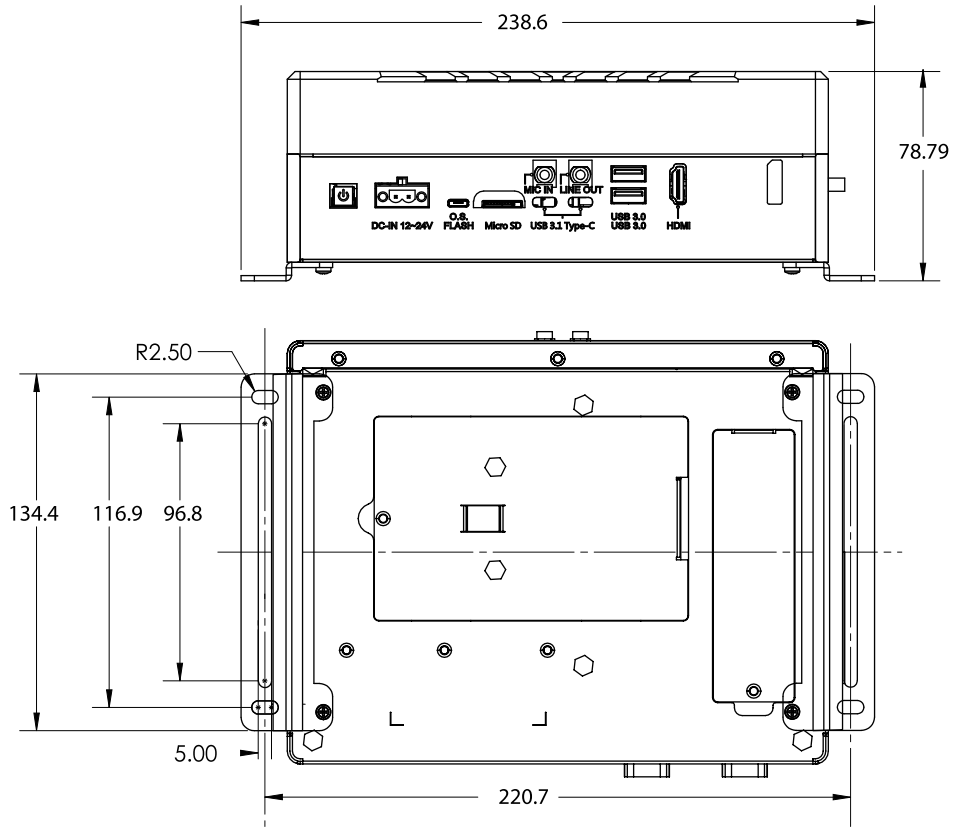
Wall mount dimensions



GoMax ORIN+



Wall mount dimensions



Troubleshooting

Review the guidance in this chapter if you are experiencing difficulty with a GoMax unit.

Mechanical/Environmental
The unit is warm.

- It is normal for a GoMax unit to be warm when powered on.

Connection
When attempting to connect to the GoMax unit with a web browser, the unit is not found (page does not load).

- Verify that the GoMax unit is powered on and connected to the client computer network. The power indicator LED should illuminate when it is powered.
- Check that the client computer's network settings are properly configured.
- Use IP scanning software to verify the IP address of the GoMax unit. For more information, see *Discovering a GoMax IP Address* on page 19.

Performance
The CPU level is near 100%.

- Consider reducing the speed. If you are using a time or encoder trigger source, consider reducing the speed. If you are using an external input or software trigger, consider reducing the rate at which you apply triggers.
- Consider reducing the resolution of the sensors in the system.
- Review the measurements that you have programmed and eliminate any unnecessary measurements.

Return Policy

Return Policy
Before returning the product for repair (warranty or non-warranty) a Return Material Authorization (RMA) number must be obtained from LMI. Please call LMI to obtain this RMA number.

Carefully package the GoMax unit in its original shipping materials (or equivalent) and ship the unit prepaid to your designated LMI location. Please ensure that the RMA number is clearly written on the outside of the package. Inside the return shipment, include the address you wish the shipment returned to, the name, email and telephone number of a technical contact (should we need to discuss this repair), and details of the nature of the malfunction. For non-warranty repairs, a purchase order for the repair charges must accompany the returning unit.

LMI Technologies Inc. is not responsible for damages to a unit that are the result of improper packaging or damage during transit by the courier.

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jQuery

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http://jquery.com/

License:

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jQuery history plugin

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Modified by Lincoln Cooper to add Safari support and only call the callback once during initialization for msie when no initial hash supplied. API rewrite by Lauris Bukis-Haberkorns

jQuery.mouseWheel

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jQuery.scaling

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Scaling 1.0 - Scale any page element

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jQuery.scrollFollow

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node

Website:

https://github.com/nodejs/node

License:

https://github.com/nodejs/node/blob/master/LICENSE

Support

For help with a component or product, please submit an online support ticket using LMI's Help Desk at http://support.lmi3d.com/newticket.php.

If you are unable to use the Help Desk or prefer to contact LMI by phone or email, use the contact information below.

> Response times for phone or email support requests are longer than requests submitted through the Help Desk.

North America

Phone	+1 604 636 1011
Fax	+1 604 516 8368
Email	support@lmi3d.com

Europe

Phone	+31 45 850 7000
Fax	+31 45 574 2500
Email	support@lmi3d.com

For more information on safety and laser classifications, please contact:

U.S. Food and Drug Administration
Center for Devices and Radiological Health
WO66-G609
10903 New Hampshire Avenue
Silver Spring MD 20993-0002
USA

Contact

Americas	EMEAR	ASIA PACIFIC
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