

User's Guide

IVS 108 WebConfig

Smart Vision Sensor



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1 IVS 108 WebConfig

Before using a IVS 108 device, a Teaching procedure must be performed. Teaching can be completed either using the embedded HMI (refer to the IVS 108 Quick Reference Guide) or the IVS 108 WebConfig graphic user interface.

NOTE	
	To access the IVS 108 WebConfig, Google Chrome is the recommended Internet browser.

To access the IVS 108 WebConfig, connect to the device IP address (factory default: 192.168.60.101) via Ethernet.

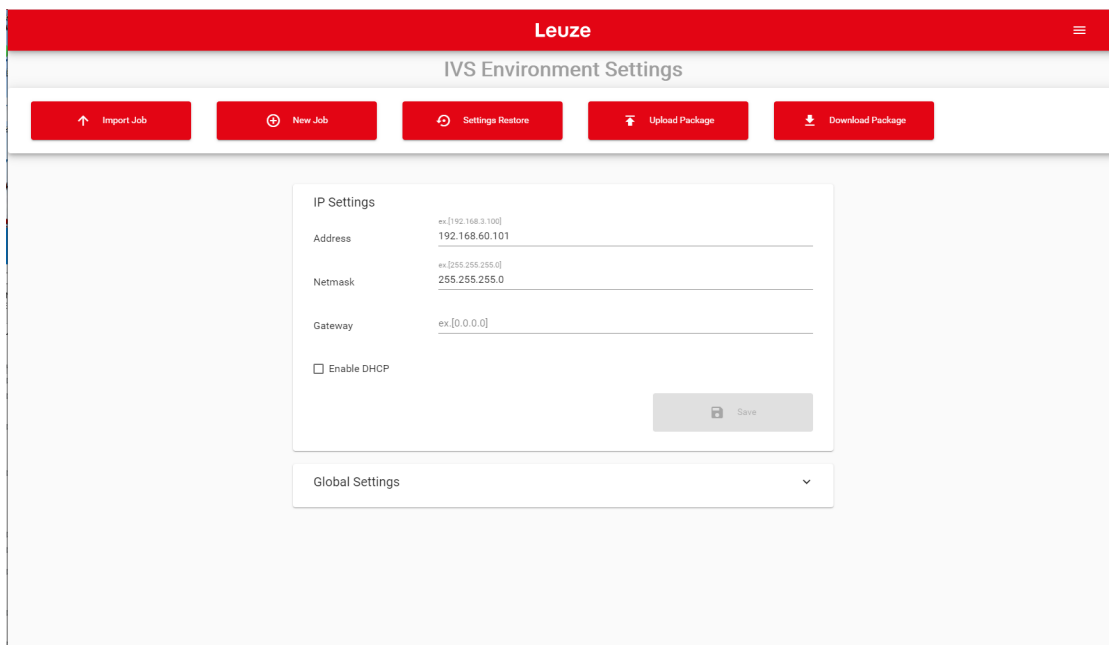
In case of a new device, the user is automatically redirected to the **Init** Page. In case of an already trained device, the **Monitoring** page is displayed.

A **Settings** page is also available to adjust the device settings.

Device information and the software update feature are available on the **Utilities** page.

1.1 Init page

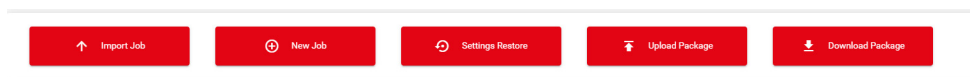
When connecting a new device, an "Init" page is displayed showing IP and Global Settings:



Under IP Settings, the Address and Netmask fields can be edited to configure any static IP address, while the Gateway field is optional.

Furthermore, by enabling DHCP, the device automatically acquires the IP address. There must be a DHCP server in the network. If there is no DHCP server, the device will assign itself an IP address in the local link range (169.254.0.0/16).

The "Init" page also includes the following buttons to interact with the IVS 108 device:



Import Job

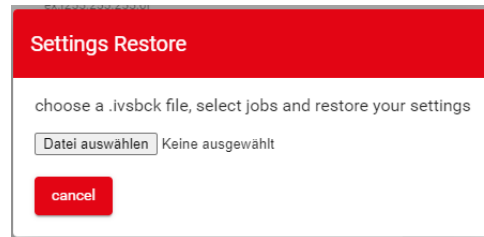
To import one or more jobs from another device.

New Job

To create a new job through the Teaching wizard (see chapter 1.2 "Teaching" on page 3).

Settings Restore

When a Settings Backup of a device has been completed (see chapter 1.5 "Utilities" on page 10), this button allows importing all jobs and global settings of that device. Clicking on the Settings Restore button opens the following window:



After selecting the backup file (.ivsbc format), select one or more job you want to restore and confirm. The global settings will be restored automatically. At the end of the procedure, the **Monitoring** page is displayed.

Upload Package

To upload a firmware package.

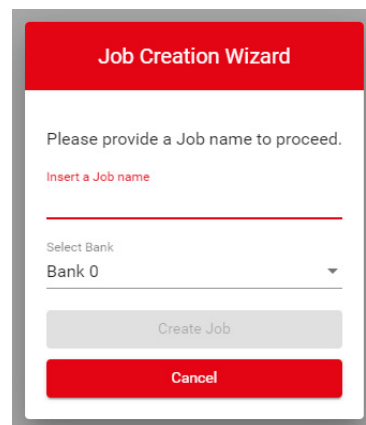
Download Package

To download the device firmware package.

⚠ CAUTION	
	Do NOT perform the Settings Restore and Upload Package operations while the device is receiving trigger signals.

1.2 Teaching

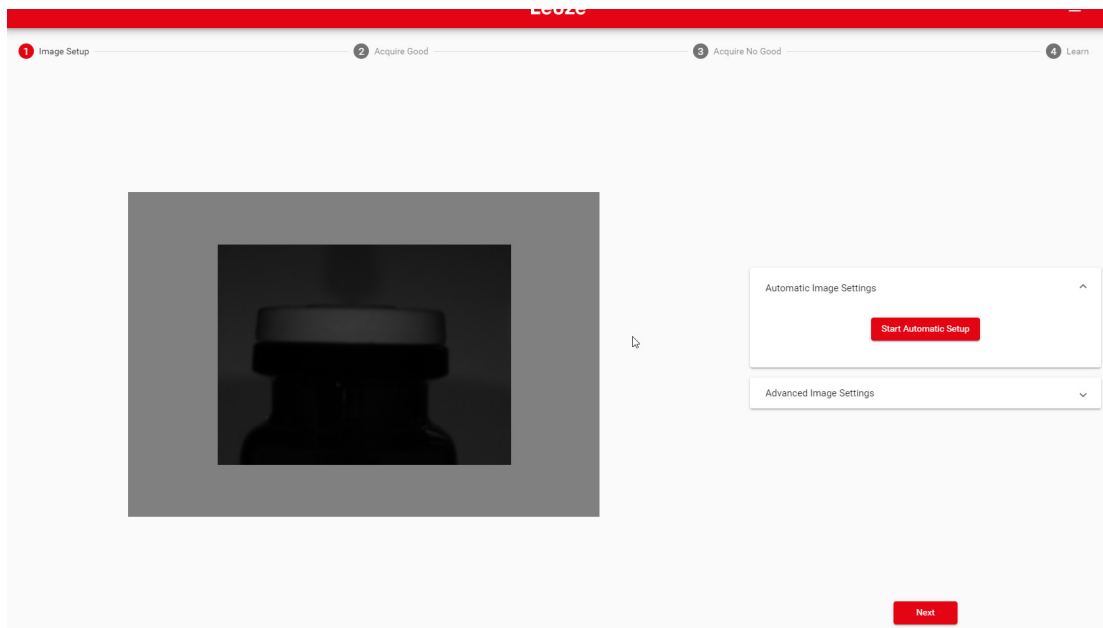
To perform Teaching on your IVS 108 device, enter a job name, select the bank where to store it, click on the Create Job button, and follow the procedure described below.



1.2.1 Step 1: Image Setup

On the **Image Setup** page, select *Start Automatic Setup* to automatically set the Focus Distance, the Exposure Time, and the Sensor Gain parameters (suggested). Alternatively, select *Advanced Image Settings* to manually set the parameters.


It is also possible to move the Field of View based on the application needs, which can be useful when objects of different batch formats must be inspected on the same line. To do this, simply click on the image and drag it throughout the gray area.

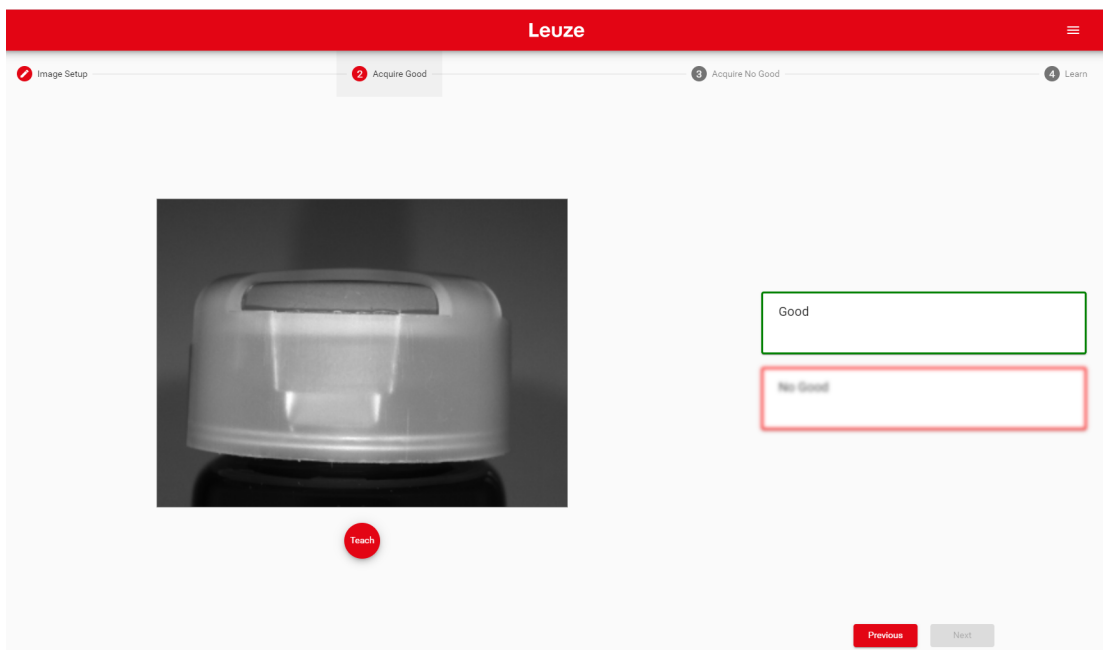



After completing image setup, click NEXT.

1.2.2 Step 2: Acquire GOOD

On the **Acquire GOOD** page, one or more GOOD objects can be acquired by clicking on the *Teach* button. It is recommended to acquire as many GOOD images as the known number of instances to be treated as GOOD.

NOTE	
	The GOOD and NO GOOD boxes can store a total of 6 images, of which at least one per box. This means that each box can have a maximum of 5 images.



NOTE	
	Click on an acquired object in the GOOD box and select DELETE to delete it.

After adding at least one object, you can click Next and go to the Acquire NO GOOD page.

1.2.3 Step 3: Acquire NO GOOD

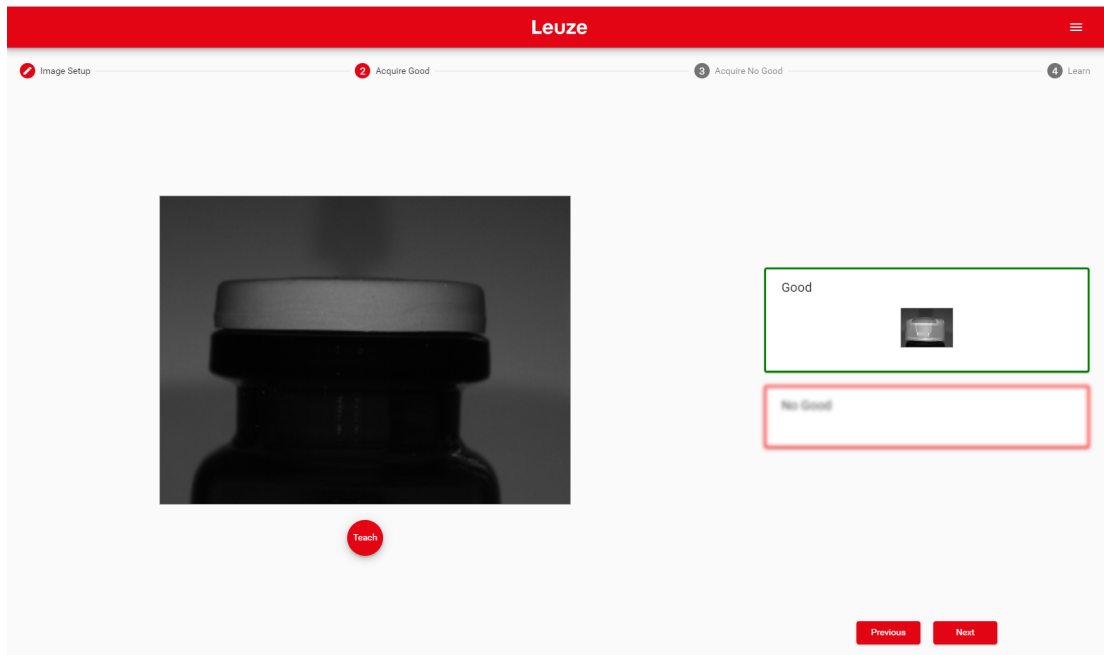
On the **Acquire NO GOOD** page, one or more NO GOOD objects can be acquired by clicking on the *Teach* button.

It is recommended to acquire as many NO GOOD images as the known number of instances to be treated as NO GOOD.

NOTE



The GOOD and NO GOOD boxes can store a total of 6 images, of which at least one per box. This means that each box can have a maximum of 5 images.



NOTE

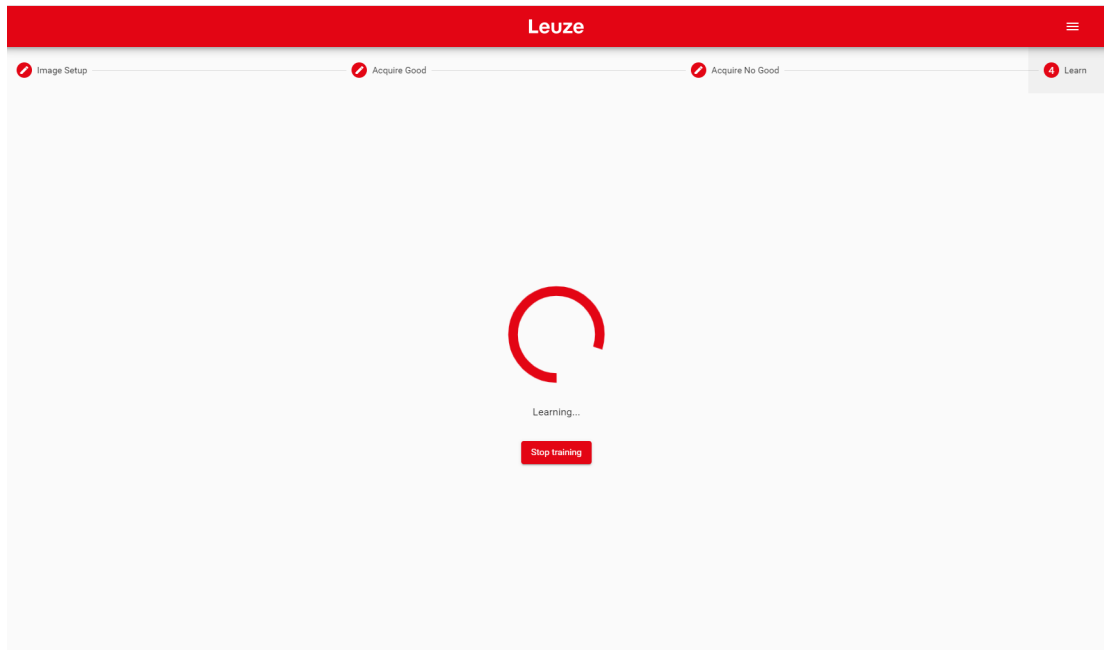


Click on an acquired object in the NO GOOD box and select DELETE to delete it.

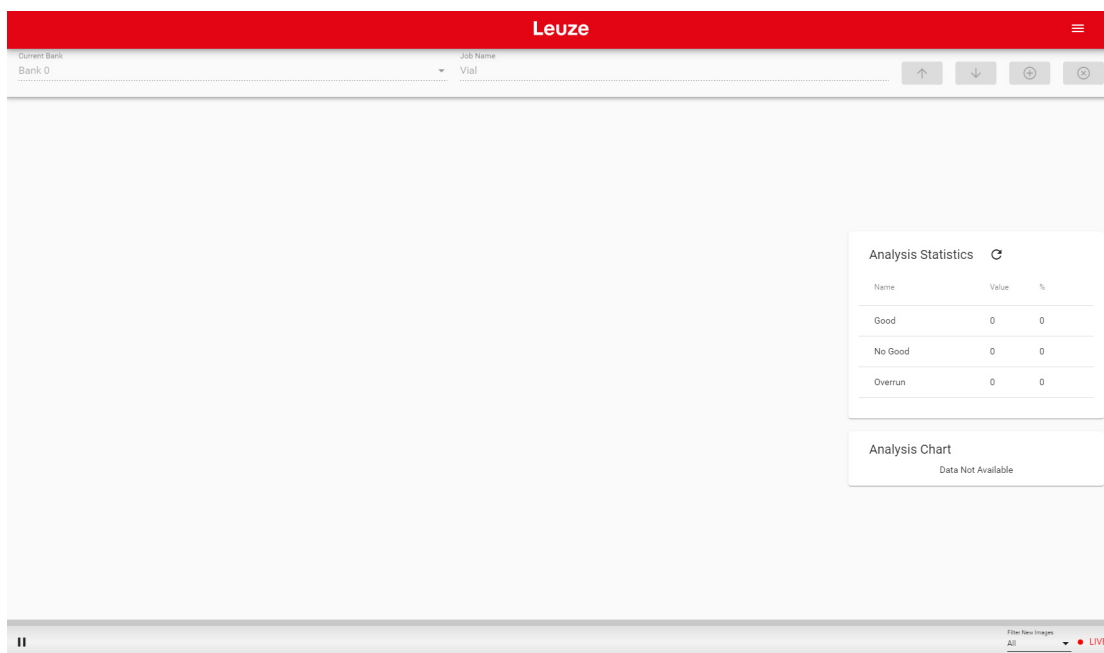
After adding at least one NO GOOD object, you can click on the *Teach* button.

1.2.4 Step 4: Learn

This step is completed automatically. If it takes too long, you can stop the procedure clicking on the *Stop training* button.



Once the device is trained, the IVS 108 WebConfig switches to the Monitoring page.




1.3 Monitoring





The **Monitoring** page is divided into an upper bar, a main area, and a bottom bar.



The **upper bar** contains the job name to the left. Use the drop-down menu to switch to another job (if present).

NOTE	
	If you want the selected job to be the running and startup job, click on the <i>Play</i> button before leaving the page.


Next to the job name, the following icons are present:

ICON	DESCRIPTION
	Upload job: uploads a job from your PC (.ivscfg file)
	Download job: downloads the current job on your PC
	Add new job: switches to the Training wizard to create a new job
	Delete job: deletes current job




The **main area** includes:

- the GOOD and NO GOOD boxes to the left;
- the cropping area at the center;
- the statistics box to the right. This shows the statistics concerning the ongoing acquisitions.


The **bottom bar** displays an archive of acquisitions (filmstrip).

NOTE	
	When the device receives no trigger event, the Monitoring page only displays the statistics box to the right and a blank filmstrip.

To start acquiring objects, the following options are available:

	Save and Play with External Trigger
	Play with Self-Trigger
	Single shot

The *Play* button is also a *Save* button: click on it before leaving the page to store any change.

NOTE	
	The Play with Self-Trigger button is not an actual operating mode (output signals are not driven). It is only intended for demonstration purposes or preliminary checks in static condition.


Next to the *Play* icons, the acquisition results are displayed as green bars for GOOD objects, red bars for NO GOOD objects, and gray bars for OVERRUN¹ occurrences.

Click on the *Pause* icon to stop acquisition and enable all available functions.

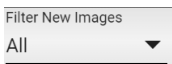

Dragging the gray box along the bottom bar displays the acquisitions included in that interval. You can now perform **Incremental Training**: click on an acquired image and select GOOD or NO GOOD to add it to the corresponding acquisition box. It is also possible to drag and drop acquired images to the GOOD / NO GOOD box or from the GOOD box to the NO GOOD box and vice versa.


After clicking on one of the *Play* icons, the newly added acquisitions will be used by the device in addition to those stored during the initial Teaching procedure.

Furthermore, the IVS 108 WebConfig allows image saving. Any image shown in the WebConfig can be saved clicking on it and selecting *Save*.

NOTE	
	It is recommended to enable the browser option "Ask where to save each file before downloading".

The following options are also available:

	Show all images or just one category between GOOD, NO GOOD, and OVERRUN
	Download the entire filmstrip

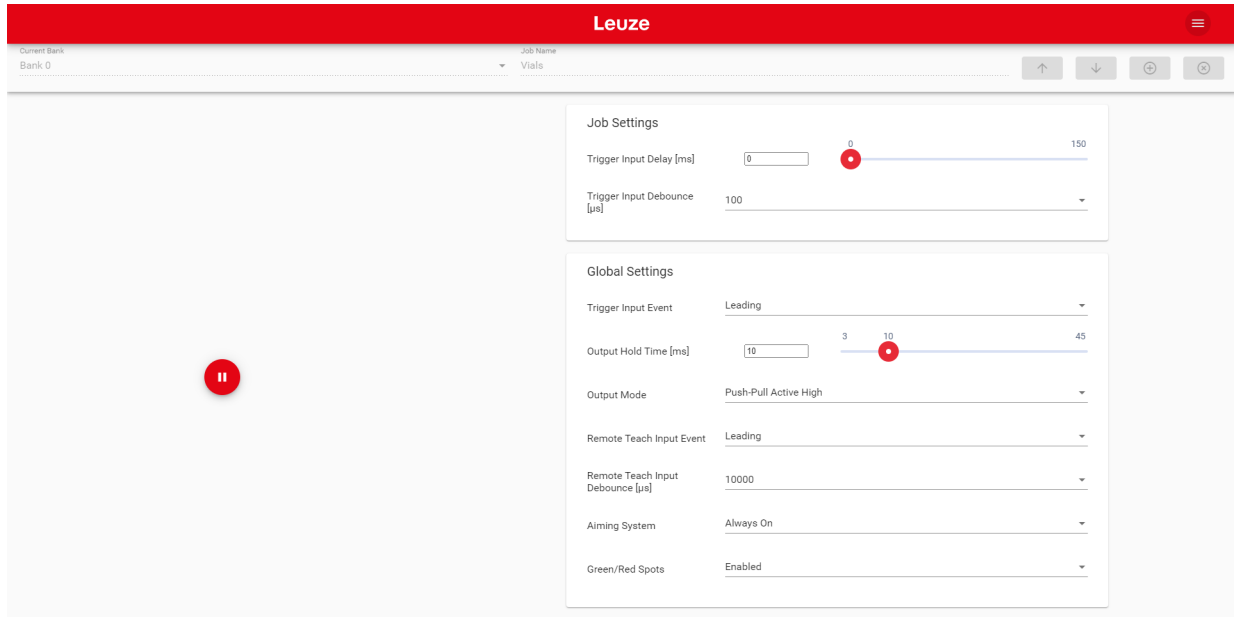
NOTE	
	Selecting the option "Download the entire filmstrip" downloads the last 50 acquisitions.

1.4 Settings

This page contains Job Settings and Global Settings.

1. Overrun occurrences are mostly due to a noisy trigger signal and/or a too fast sequence of trigger events (e.g. more than two events every 50 ms). Choose a proper Debounce filter time and/or adjust the line speed to have 20 pieces per second.

It can be reached using the hamburger icon on the upper right corner.



The parameters under **Job Settings** are variable for each job, which means that any change will only be valid for the current job:

- **Trigger Input Delay:** the delay to apply prior to the acquisition process of the trigger event. It is measured in time (ms). This parameter can be adjusted along with image acquisition: images are shown on the related window.
- **Trigger Input Debounce:** filter debounce time measured in μs .

The parameters under **Global Settings** are common to all jobs, which means that any change will be valid for all jobs:

- **Trigger Input Event:** can be either Leading or Trailing.
- **Output Hold Time:** the time (ms) during which the output data remains valid.
- **Output Mode:** available selections are NPN, PNP, Push-Pull active High, Push-Pull active Low.
- **Remote Teach Input Event:** available selections are Leading and Trailing.
- **Remote Teach Input Debounce:** filter debounce time measured in μs .
- **Aiming System:** available selections are Always ON, Always OFF, Calibration Only.
- **Green/Red Spots:** available selections are Calibration Only, Enabled, Disabled.

1.5 Utilities

The **Utilities** page can be reached using the hamburger icon on the upper right corner.

This page is divided into three parts:

- **Device Information:** information about the device model, serial number, software version, and GUI version.
- **Maintenance:**
 - *Upload Package* to upgrade the device firmware.
 - *Download Package* to download the device firmware package.
 - *Clear Configurations* to clear all created jobs and reset all Global Settings to default.
 - *Settings Backup* to download and save all jobs and global settings in a .ivsbc file.
 - *Settings Restore* to import all jobs and global settings of a device (see chapter "Settings Restore" on page 3).
- **IP Settings:** Address, Netmask, Gateway (the Address and Netmask fields can be edited to configure any static IP address, while the Gateway field is optional.)

⚠ CAUTION	
⚠	Do NOT perform the Settings Restore and Upload Package operations while the device is receiving trigger signals.