POWERFLEET

# Pedestrian Proximity Detection

## Configuration Software User Guide

Proprietary and Confidential
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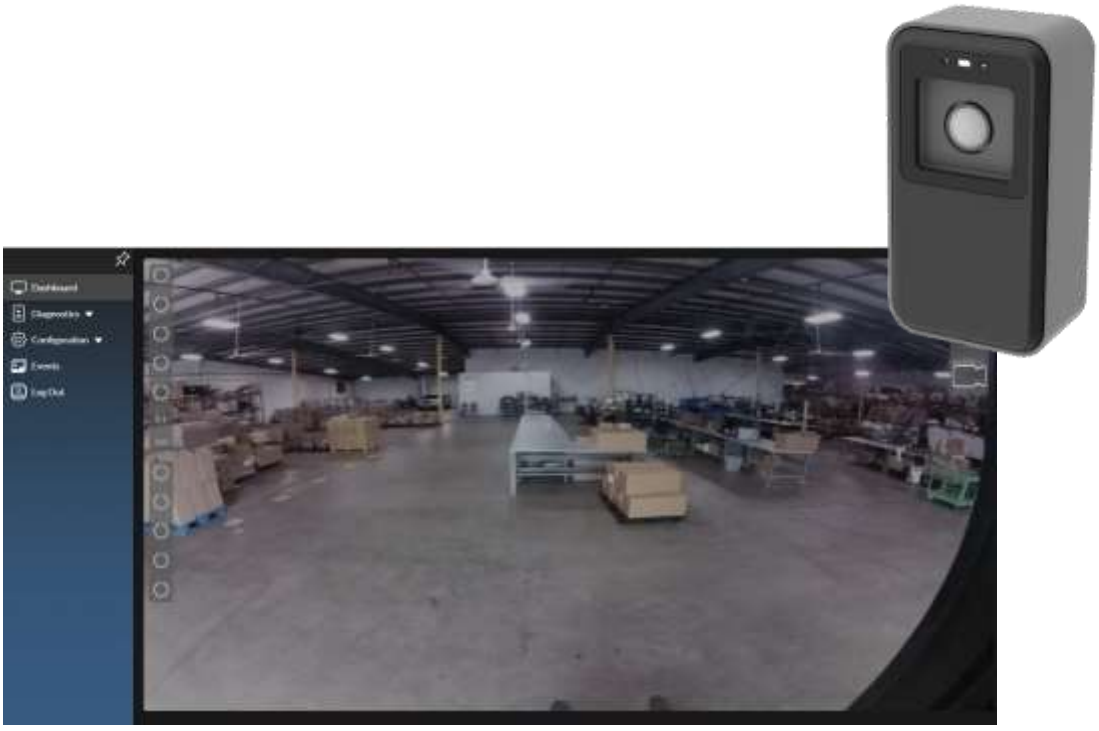


# Table of Contents

*Powerfleet provides a default configuration file for all Pedestrian Proximity Detection systems to meet the requirements of the recommended installation method. This guide is intended to help users understand the configuration software should the user decide to change the way the product is installed, or should the user decide they want different functionality. All steps assume the user is connected to the I/O Module.*

## Local connection between a notebook computer and the I/O module.

- Open your notebook computer's Wi-Fi connection.
- Make sure the I/O Module Wi-Fi LED is green.
- Select the wireless network corresponding to the I/O module serial # (printed on the label) you want to connect to.
- After the connection is made, go to 10.10.10.1 on a web browser.
- Login credentials
    - Username: support
    - Password: mdgsupport!help

## Remote connection between a computer and the I/O module.

*This only works if you previously configured the I/O Module to connect to your network.*

- Connect your computer to the network that has access to the I/O Module.
- After the connection is made, in your web browser, enter the IP Address of the I/O Module you want to connect to (your IT department will need to tell you which IP addresses are assigned to which I/O Modules).
- Login credentials
    - Username: support
    - Password: mdgsupport!help

**NOTE:** When changing the configuration, always click **Save** at the bottom of the screen when you are finished. **Reset** will undo any changes since the last save.

## Dashboard

Digital Input Status
= Active
= Inactive

Analog Input Voltage

Current Output Status
= Active
= Inactive


Camera Selection
Auto – switches camera when objects detected.

Manual – Select on the camera you want to view (current camera outlined in black)

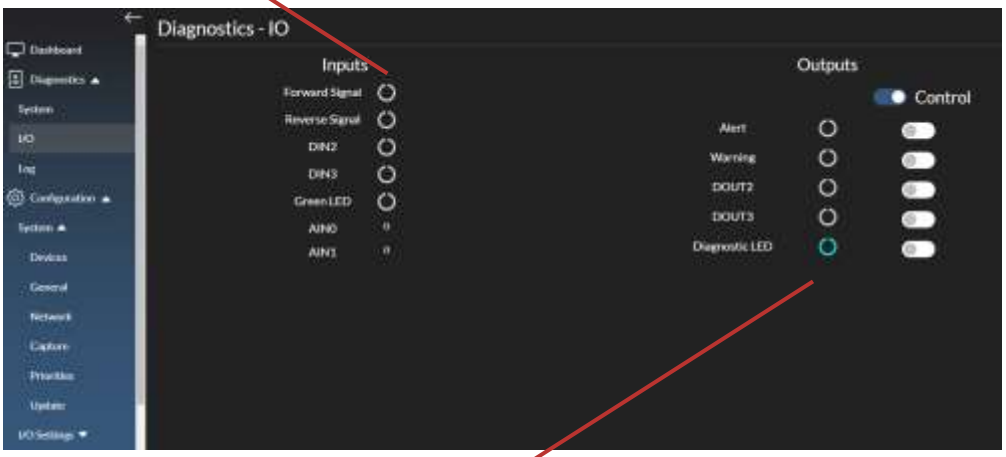
## Diagnostics > System

Provides a detailed view of the current state and configuration of the I/O Module and cameras. Support may request a screen capture of the diagnostics for troubleshooting purposes.

# Diagnostics > I/O

## Test the inputs and outputs are working correctly.

Circles turn blue when input logic is true.
(i.e., when driving forward, forward signal turns blue)




To test outputs:

- Move Control slider to the blue state.
- Pick an output and move it to the blue state and the configured logic (voltage on or voltage off) should occur.

*If any test fails, check your logic and wiring, and/or contact Support.*

# Diagnostics > Log

Interface for exporting log data. You may be requested to download log data from Powerfleet Support for troubleshooting.

# Configuration > System > Devices

## Association and disassociation of cameras

- Select **Configuration > System > Devices** from the left menu.
- The currently associated cameras are listed on the left (these may or may not be currently detected by the I/O Module), and unassociated cameras that are currently detected by the I/O Module are listed on the right.
- Select the **+** to associate an unassociated camera.
    - Enter a new Name.
    - **Swap With** can be used to associate the camera but use the profile from a previously associated camera.
- Select **Associate** if you'll configure the camera yourself, or **Swap** if you are associating a new camera but adopting a previous configuration.
- Select the **–** to disassociate a camera.

# Configuration > System > General

## Rename the I/O Module

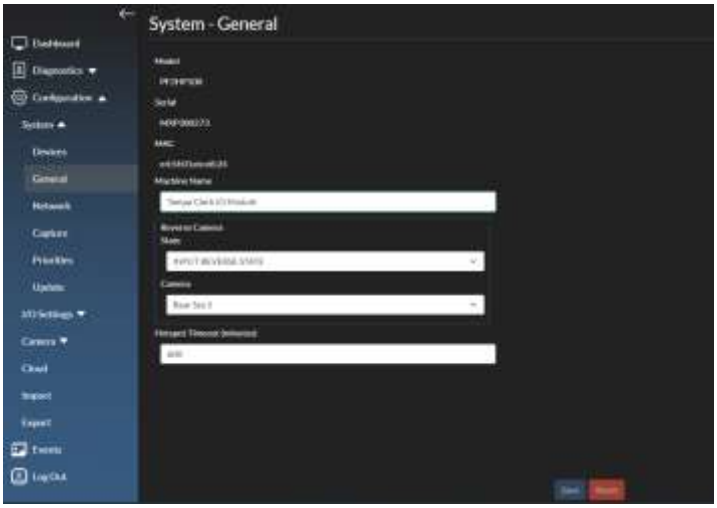
- Enter a new name in the Machine Name section.

## Set up a reverse camera display feed.

- Select a **State** which indicates the vehicle is traveling in reverse.
- Select the rear facing camera as the **Camera**.
- Any time the vehicle is in reverse, any connected display will automatically change view to the full rear facing camera view.

## Hotspot Timeout

- Enter the time you want the I/O Module local Wi-Fi connection to be broadcast for connection after booting up (default 10 hours).



## Configuration > System > Network

### Connect the I/O Module to Wi-Fi.

*Only use this step if you want to connect to cameras on your VLAN.*

- Select **Configuration > System > Network** from the left menu.
- Select the network from the list (or select Add Network if you don't see the one you want in the list).
- Enter the network credentials and verify connectivity by seeing a **Yes** next to **Internet**.
- Select **Save**.

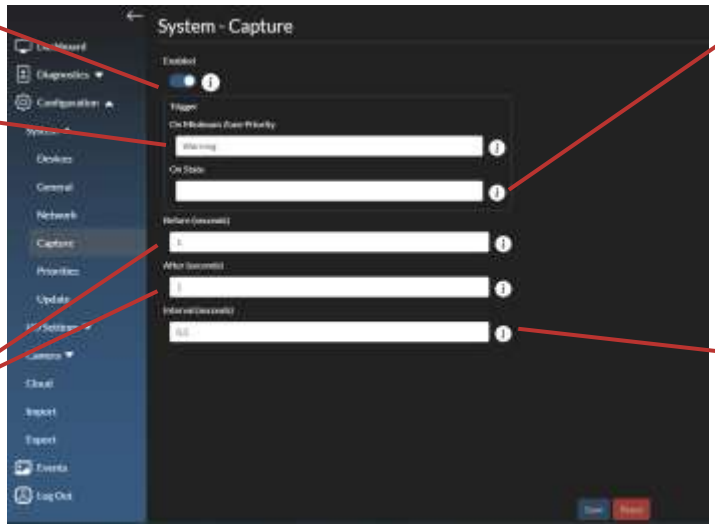

## Configuration > System > Capture

### Determine when the solution will record images.

If disabled, no images will be recorded.

Set the minimum priority area that will record images. For example, if set to Normal priority, Normal, High, and Highest priorities will record images.

Determines how many seconds before and after the area is breached or the state achieved that images are recorded.




Set the state required to record images. If blank, images are saved based on area priority only. If a state is selected, images will be captured when the state is true **OR** for the areas selected.

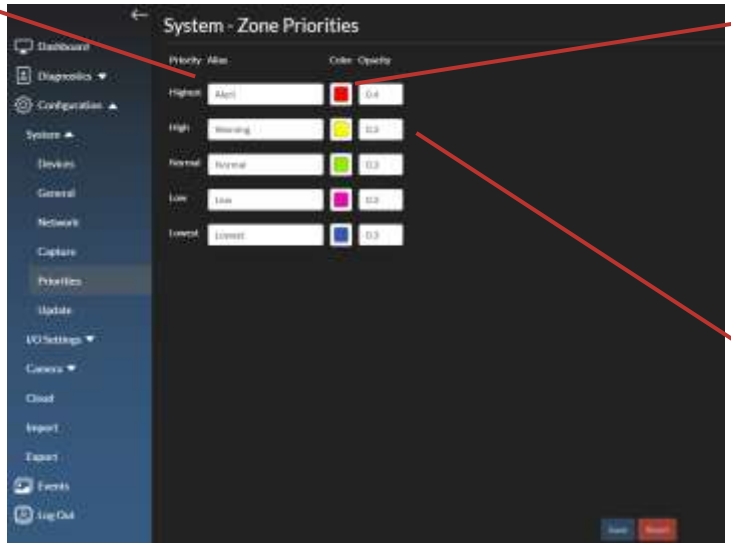
Set the frequency before, during and after the event that images are recorded.

## Configuration > System > Priorities

### Customize the names of priorities and select colors.

- Higher level priority zones must be inside (closer to the camera) of lower-level priority zones in the configuration shapes for sensing events.
- Color and opacity have no functional effect, they are merely for the user when configuring them.

Priorities can be renamed if desired, but their priority order remains the same.




Color affects the way the priorities are viewed in the configuration software and saved images.

Opacity affects the way the priority overlays are viewed in the configuration software and saved images. The closer to 1 the more solid the overlay is.

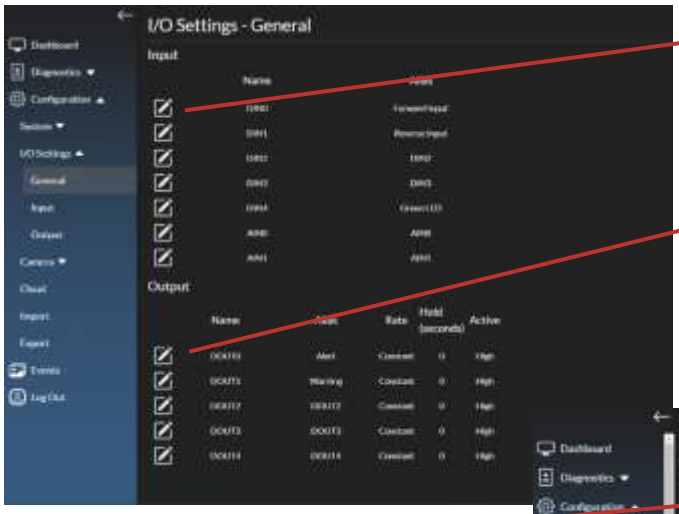
## Configuration > System > Update

### Update the software on the I/O Module and Cameras.

- Select the file you want to update to.
- Select **Upload**.

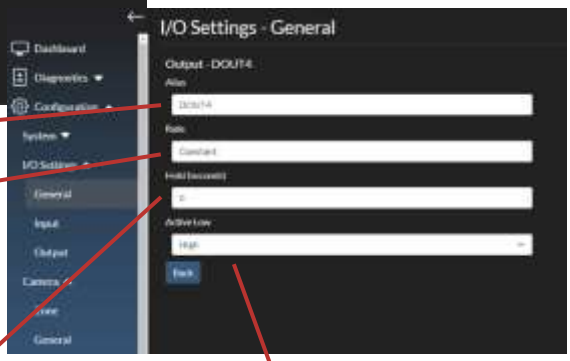
# Configuration > I/O Settings > General

*Note: Any changes to the names or configurations need to consider how the I/O Module is wired.*




Select the ✎ to change the input labels.

Select the ✎ to open the below window.




Change the output name.

Select the output voltage pattern to use during the event.
Constant = output stays constant
Slow = output oscillates slowly
Medium = output oscillates faster
Fast = output oscillates fast

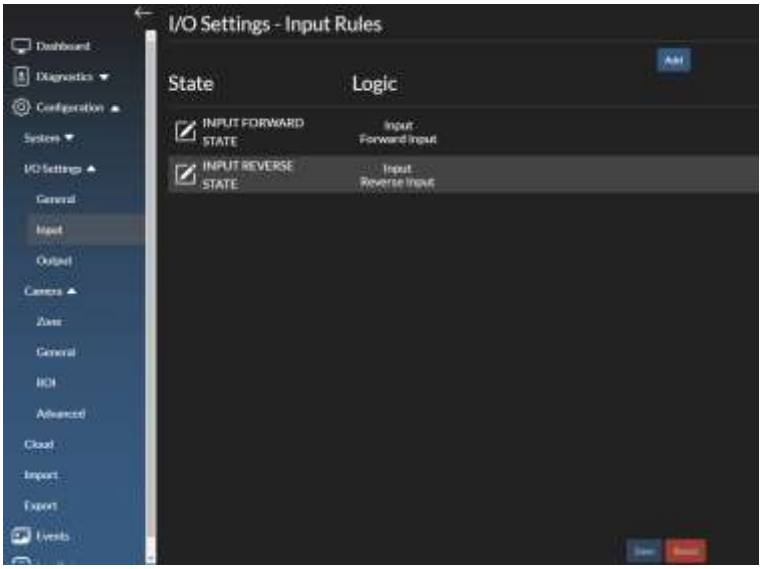
Determines how long after an event ends that the output stays on.

| Setting | **High** | **Low** |
|---|---|---|
| Event Active | 12 VDC output | 0 VDC output |
| No Event | 0 VDC output | 12 VDC output |

## Configuration > I/O Settings > Input

### Set the State logic used for zone and reverse configuration.

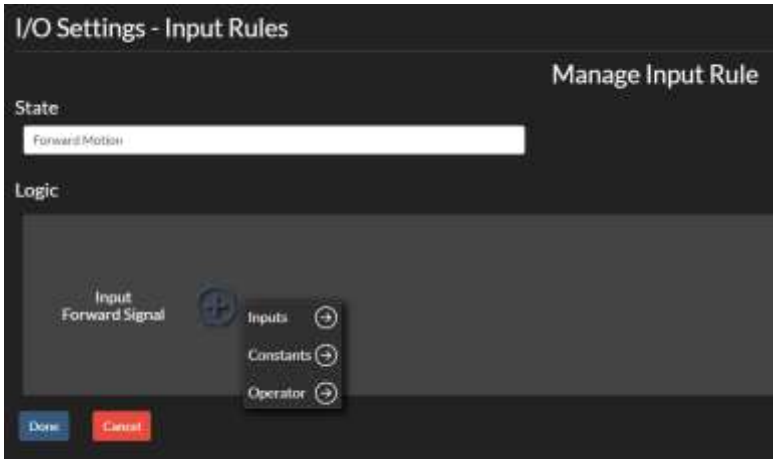
- When configuring reverse actions and zones, the solution asks for a State to consider valid events.
- Select **Add** to add a State with logic or select the ✎ icon to edit existing logic.
- Select + to add logic or select existing logic to edit it.




Inputs – Select the input that makes this state true.

Operator – Let's you build logic equations.

Constants – Let's you select values for <, >, and = staements.



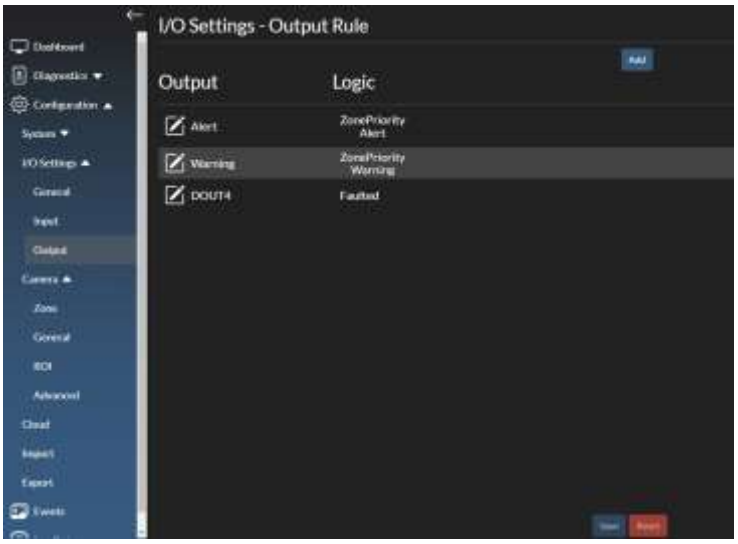

***Note:*** *Setting constants only works with analog inputs AIN0 and AIN1. Digital inputs (DIN0-DIN4) are evaluated as on (non-zero) and off (> zero) only.*

**You must add an "AND" or "OR" operator between input selections!**

## Configuration > I/O Settings > Output

### Set the State logic used for each of the zone priorities.

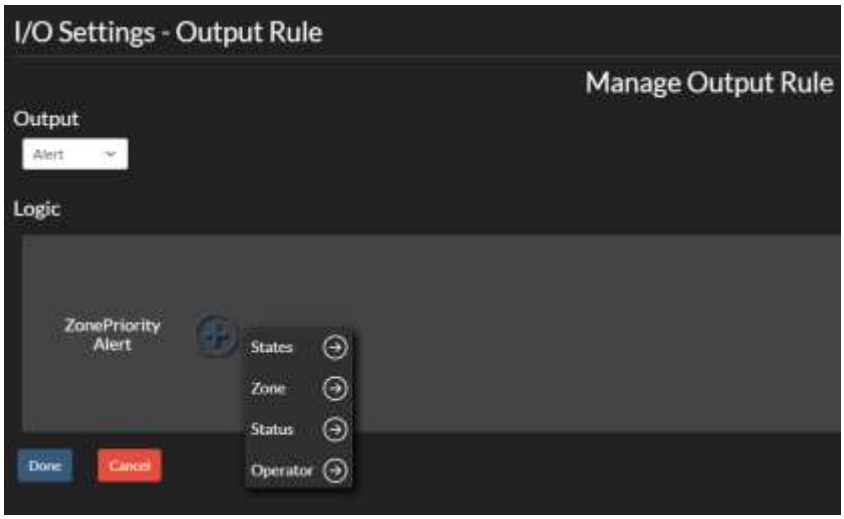
- Select **Add** to add a State with logic or select the ✎ icon to edit existing logic.
- Select + to add logic or select existing logic to edit it.




States – If applicable, select the state that triggers the output.

Zone – If applicable, select the zone that triggers the output.

Status – If applicable, select the diagnostics that triggers the output.




Operator – Let's you build logic equations.

**You must add an "AND" or "OR" operator between output selections!**

## Configuration > Camera > Zone

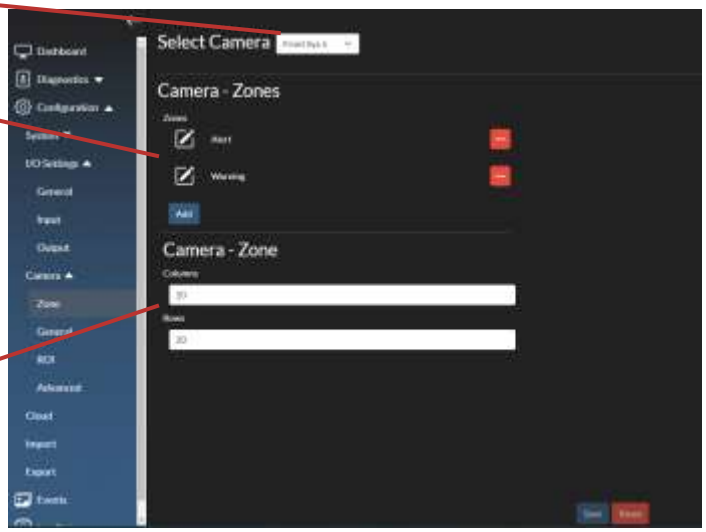
### Set zones applicable to each camera and edit their profiles.

- Select the Select **Add** to add a Zone with logic or select the ✎ icon to edit existing zone profiles.

Select the camera you want to edit.

Select the Select **Add** to add a Zone with logic or select the ✎ icon to edit existing zone profiles.

Adjust the box sizes for assigning zone shapes (the larger the number the more granular a shape can be).




Name of the zone.

When the camera considers the zone for breaches.
ActiveState = Zone is on only when state is active
Always = Zone is always on
Never = Zone is never on

Objects in the zone that trigger an event (select as many as desired).


Input logic used for event creation.

Zone priority assigned.

Select boxes in the grid that you want as part of this zone. Higher level priority zones must be inside (closer to the camera) of lower-level priority zones in the configuration shapes for sensing events.

## Configuration > Camera > General

- Edit the name of the camera(s).
- View the serial number, MAC address and assigned IP address of the camera(s).

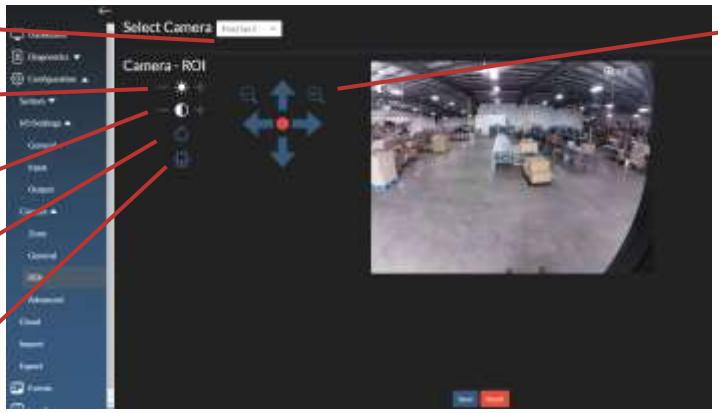
## Configuration > Camera > ROI

**Verify each camera field of view meets your criteria.**

**For front facing cameras on a mast, adjust the mast to the normal driving position before continuing.**

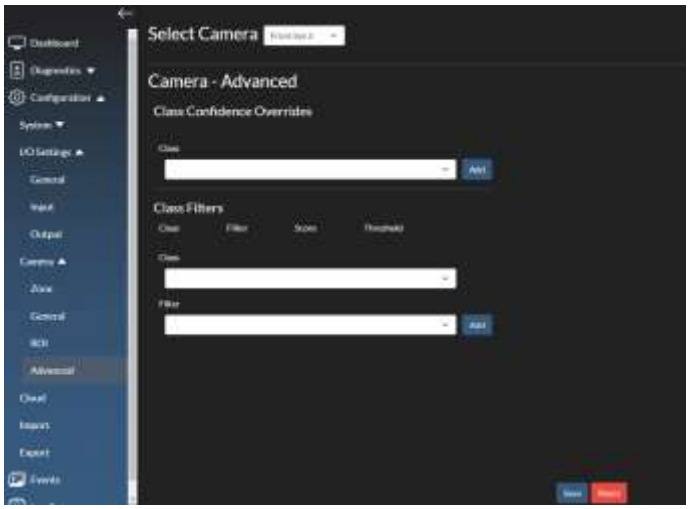
- Select the camera.
- Check the view from each camera (swap using the top drop-down). To adjust the field of view.
  - Adjust the mounting position.

    **OR**
  - Zoom in on the view you have and pan (←↑→↓) using the UI.
  - Use the ↻ to rotate the camera 90° with each click.
- Select **Save**.



## Configuration > Camera > Advanced

The advanced screen allows for fine tuning in specific applications. Please contact Powerfleet support for recommendations based on your issues.




## Cloud

Not used at this time.

# Import

## Installing a configuration file.

- Select **Configuration** from the left menu.
- Select **Import** from the left sub-menu.
- Navigate and select the config file you would like to use on the computer.
- A "Success" confirmation should appear.
- Refresh the browser.
- Log in again using the credentials from the previous step.
- Default settings:

| | | |
|---|---|---|
| **I/O Module** | Reverse camera State | Reverse signal input (C4) |
| **Image capture** | Areas | Alert, Warning |
| | Period | 1 second before, 1 second after |
| | Frequency | 0.5 seconds (2x per second) |
| **Inputs** | Digital In 0 (Grey wire C5) | Forward signal |
| | Digital In 1 (Blue wire C4) | Reverse signal |
| | Digital In 2 (N/A) | Not used |
| | Digital In 3 (N/A) | Not used |
| | Digital In 4 (N/A) | Not used |
| | Analog In 0 (N/A) | Not used |
| | Analog In 1 (N/A) | Not used |
| **Outputs** | Digital Out 0 (Red wire C7) | Alert area, constant on when active |
| | Digital Out 1 (Yellow wire C6) | Warning area, constant on when active |
| | Digital Out 2 (N/A) | Not used |
| | Digital Out 3 (N/A) | Not used |
| | Digital Out 4 (N/A) | Not used |
| **Direction** | Forward motion | Digital In 0 is > 0 VDC |
| | Reverse motion | Digital In 1 is > 0 VDC |
| **Zones** | Front camera | Alert and Warning, for people and vehicles |
| | Rear camera | Alert and Warning, for people and vehicles |

## Export

Allows you to download the configuration from the I/O Module you are connected to for reference or for importing to other I/O Modules.

## Events

Allows you to download event images from the I/O Module.