



Neovo Controller
User Guide

Version 1.0

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INTRODUCTION

Neovo Controller is a software application tool that allows users to control, configure, and test public displays via LAN, RS-232, or the new Wi-Fi connection. This tool not only enhances the connection stability of the first-generation version but also introduces a more intuitive interface and automatic detection feature, helping users manage display devices more efficiently. In addition, Neovo Controller includes a member login system and local storage of device lists, providing a more personalized user experience.

Features and Benefits

- Easy remote access to many common control functions
- Access to advanced tiling controls with automatic alignment
- Control one or multiple displays through display grouping
- Enable member login to save personalized settings and device lists.
- Allow local storage of device lists for easier switching between devices.

Usage Scenarios

- Finding command codes for programming into an external control system
- Remotely controlling installed displays, with support for cloud-connected remote monitoring
- Quickly configuring a video wall using intelligent automatic tiling settings
- Switching video sources of multiple displays, with support for custom schedules
- Saving device lists and preference settings through member login to enhance user experience

INTRODUCTION

Supported Display Models

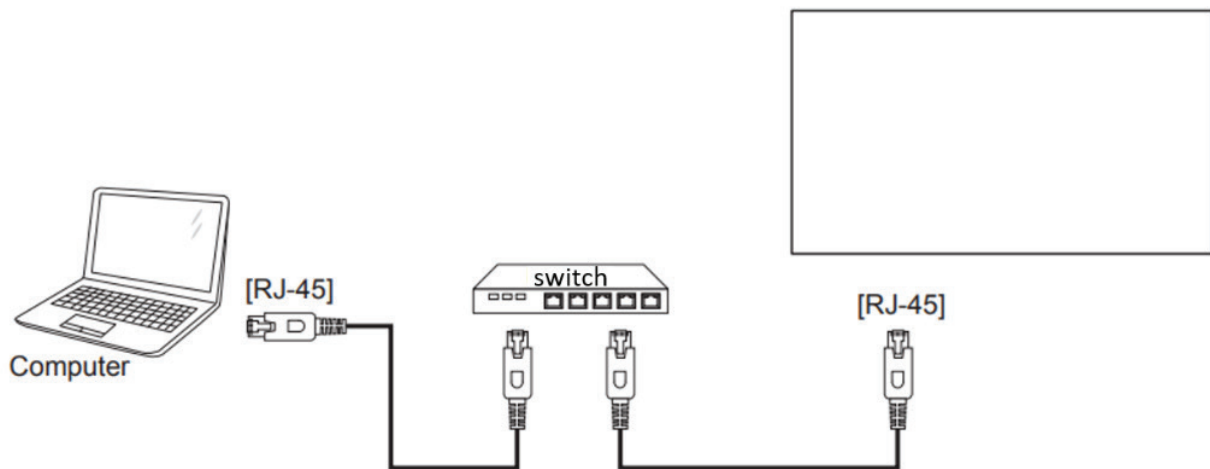
- SMQ Series: 43, 55, 65, 75
- HMQ Series: 43, 55, 65, 75
- TTN Series: 32, 43, 55
- IFP Series: 65, 75, 86
- NSD Series Gen3: 32, 43, 55, 65
- DS Series: 32, 43, 55, 65
- PN Series: 46D2, 55D(3)
- PD Series: 42, 49, 55
- PM Series: 32
- QM Series: 43, 55, 65, 75, 86
- PDQ Series: 43, 55, 65
- SX Series: 15G, 17G, 19G
- RX Series: 22G, 24G
- HX Series: 24G

MAKING CONNECTIONS

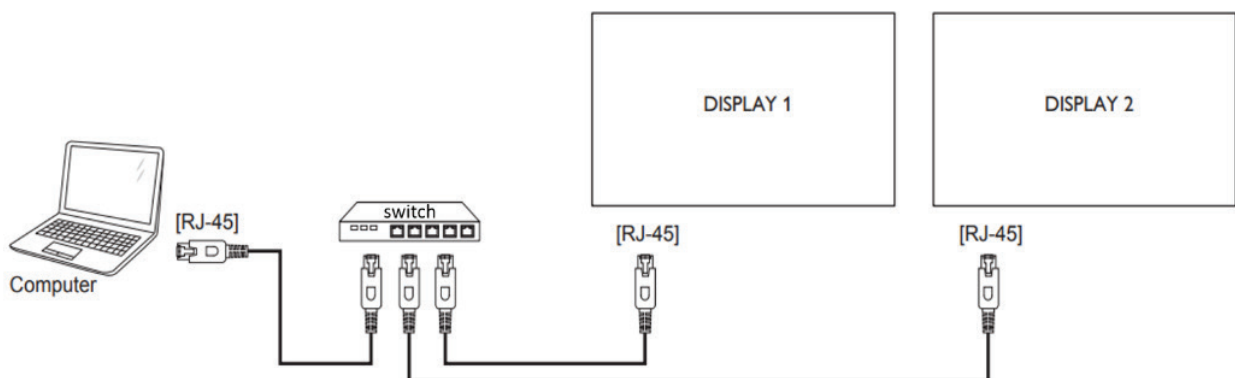
You can interconnect multiple display to create a daisy-chain configuration a video wall via LAN or RS-232.

Connecting via LAN

- Single display setup:



- Multiple display setup:

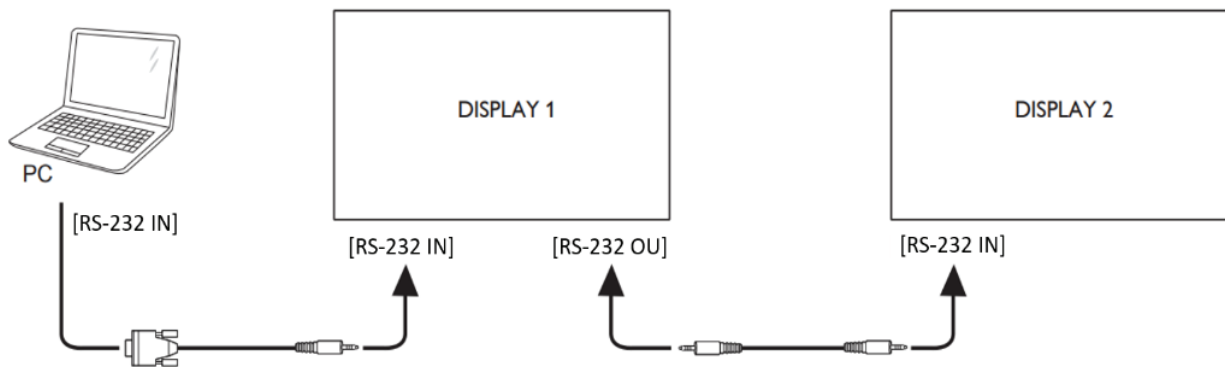


MAKING CONNECTIONS

Connecting via RS-232

Connect the RS-232 cable to the corresponding serial port in your computer and display respectively.

Connect the RS-232 OUT connector of DISPLAY 1 to the RS-232 IN connector of DISPLAY 2 to create a daisy-chain configuration.



Note: A USB to RS-232 adapter is necessary for computers which do not have a physical serial port.

CONTROLS AND FUNCTIONS

Member Login and Local Storage

Neovo Controller introduces a member login system, allowing users to log in and save personalized settings and device lists. Additionally, it supports local storage of device lists, making it easy to maintain consistent settings when switching between different computers.

Member Login Feature

Users can register and log in to a member account to access personalized device lists and preference settings.

Support multi-device login to ensure consistent settings across different devices.

Local Storage of Device Lists

Automatically saves device lists locally, so users do not need to re-establish connections each time.

CONTROLS AND FUNCTIONS

Getting Started

Upon launching Neovo Controller, You will see the login screen as shown below.



Neovo Controller

User Login

Email *

Password *

[Login](#) [Sign up](#) [Skip](#)

On this screen, You have three options:

If you already have an AG Neovo member account: Simply enter your email and password to log in.

If you do not have an AG Neovo member account: Click on "Sign Up" to register for a new account.

If you wish to use Neovo Controller without logging in, click "Skip" to continue.

CONTROLS AND FUNCTIONS

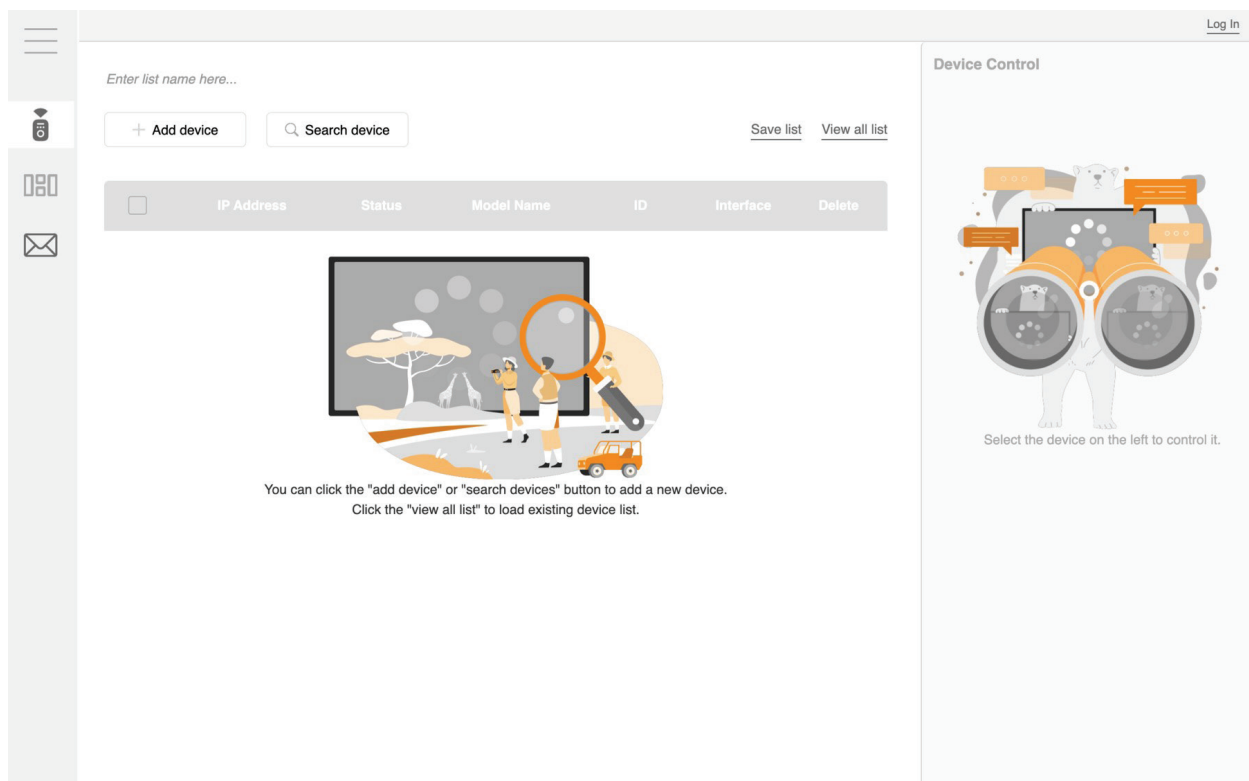
Adding or Searching for Displays

After logging in or selecting "Skip," you will be directed to the main screen of Neovo Controller.

When using Neovo Controller for the first time, it is necessary to add the displays you want to control.

As previously mentioned, you can use the "Search device" button to automatically search for displays within the network domain. Alternatively, if you have already connected a display via RS-232 using a USB-to-RS232 adapter, you can also add the device manually.

First, let us explain how to use the search function to add displays.

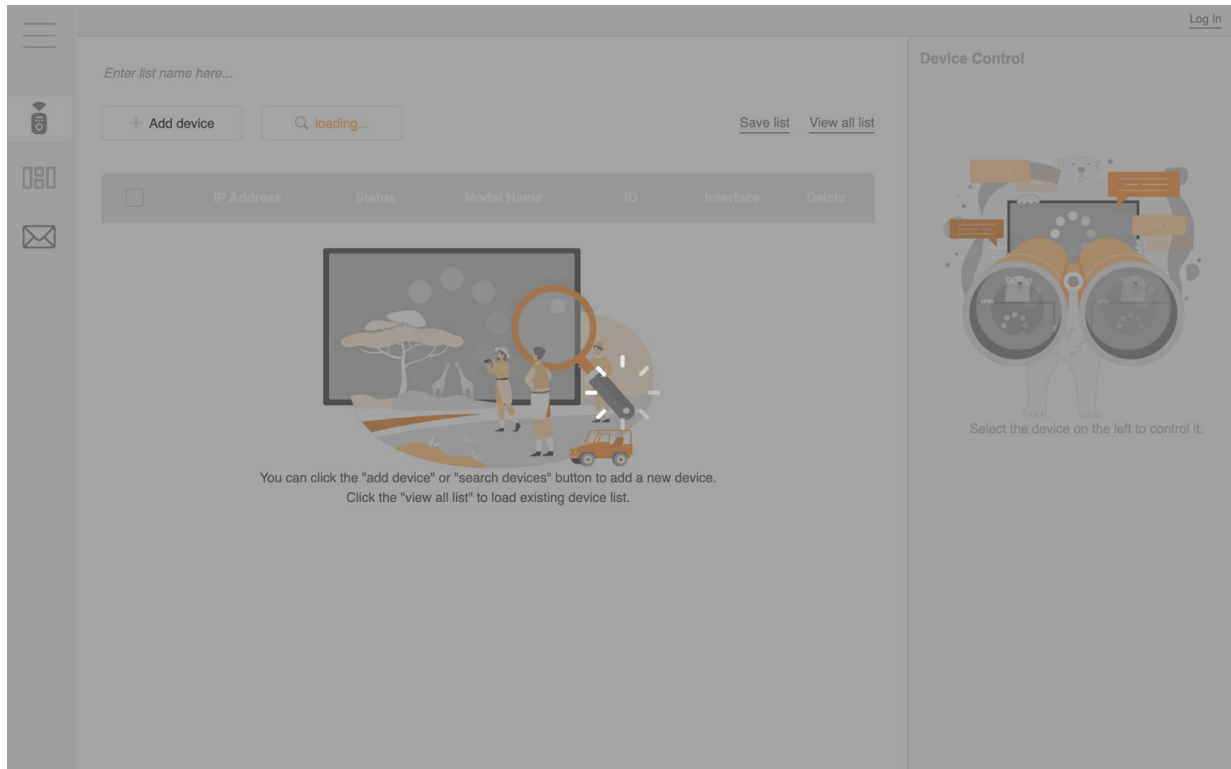


The screenshot displays the Neovo Controller web interface. On the left is a sidebar with navigation icons. The main area features a header with a list name input field, an "Add device" button, and a "Search device" button. Below these are "Save list" and "View all list" links. A table header is visible with columns: IP Address, Status, Model Name, ID, Interface, and Delete. A large illustration shows people interacting with a display, with a magnifying glass highlighting the "Search device" button. Below the illustration, text reads: "You can click the 'add device' or 'search devices' button to add a new device. Click the 'view all list' to load existing device list." On the right, a "Device Control" panel shows a polar bear holding two displays, with the instruction: "Select the device on the left to control it."

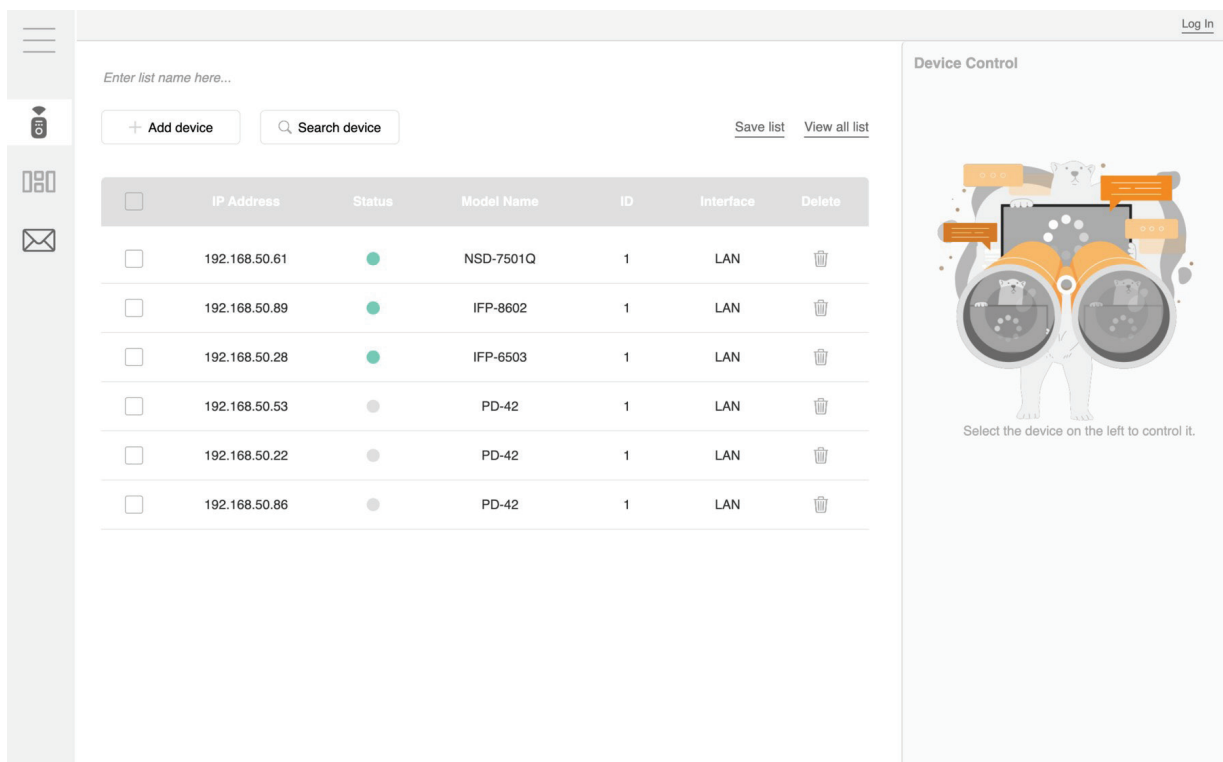
CONTROLS AND FUNCTIONS

Searching for Displays

Ensure that your display is connected to the same network as the current device. Simply press the "Search device" button, and within approximately ten seconds, the search results will be displayed on the screen.



Once the search is complete, you will see the available displays listed.

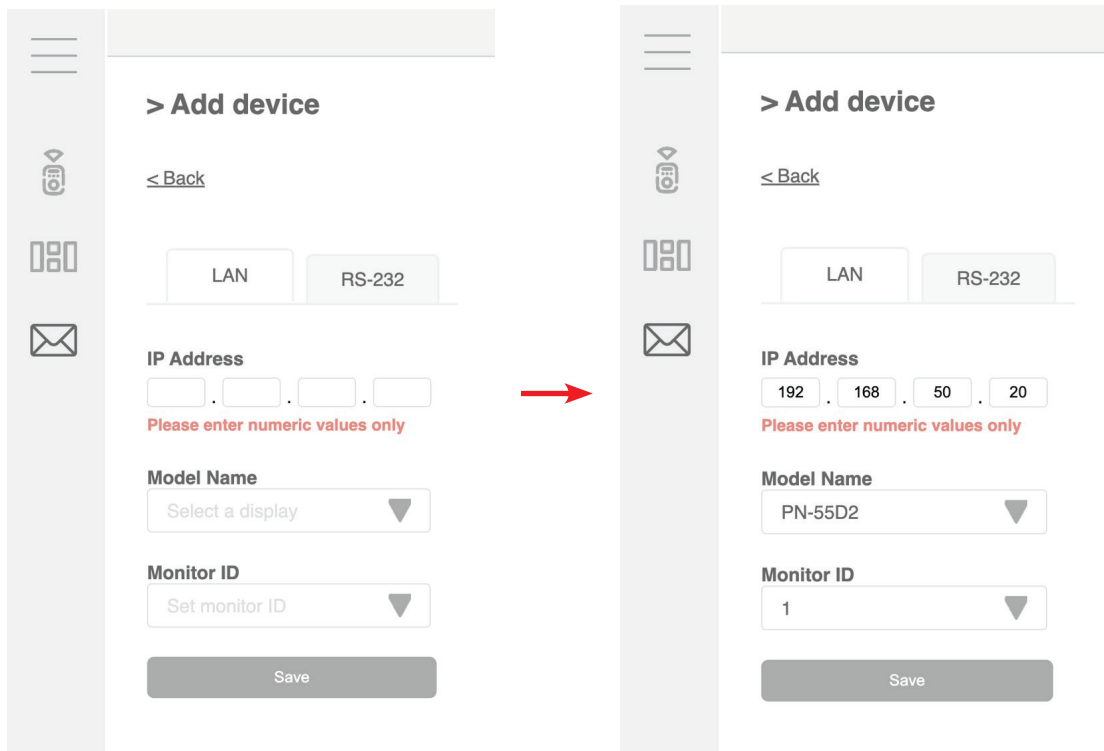


CONTROLS AND FUNCTIONS

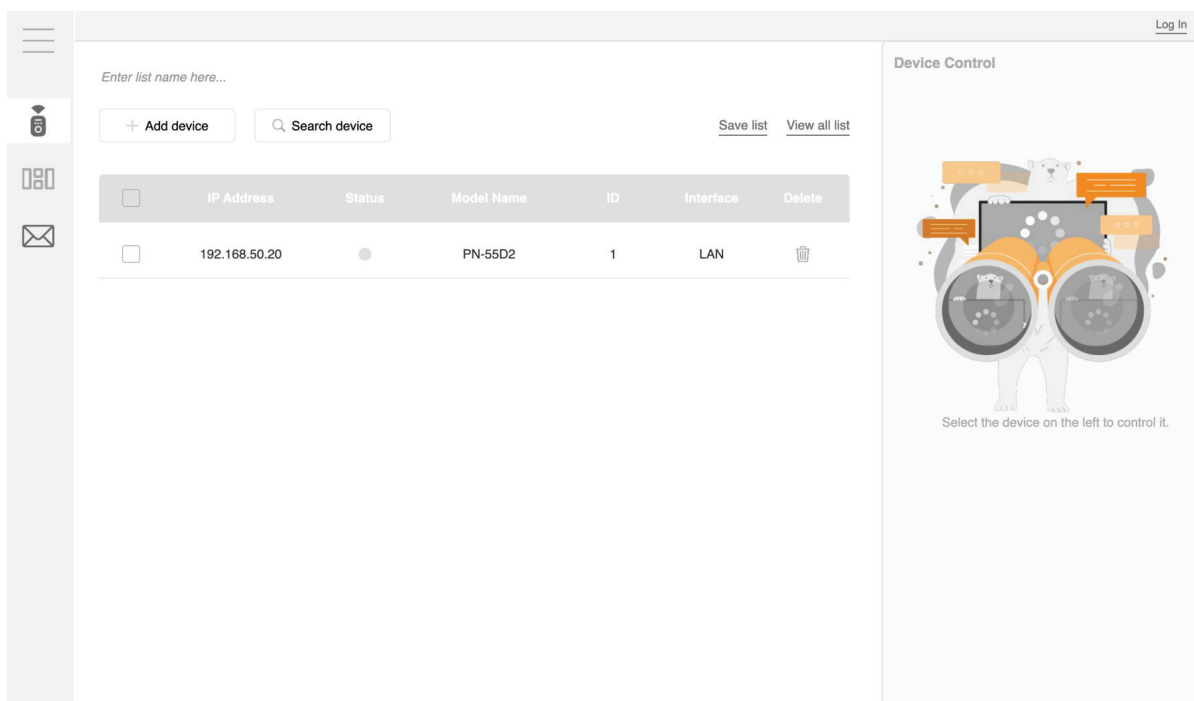
Adding a Device - LAN

To add a device manually, click on the "Add device" button.

You can add a LAN device by entering its IP address, selecting the model name, and specifying the monitor ID. Once the information is complete, click "Save." The newly added display will then be shown in the device list.



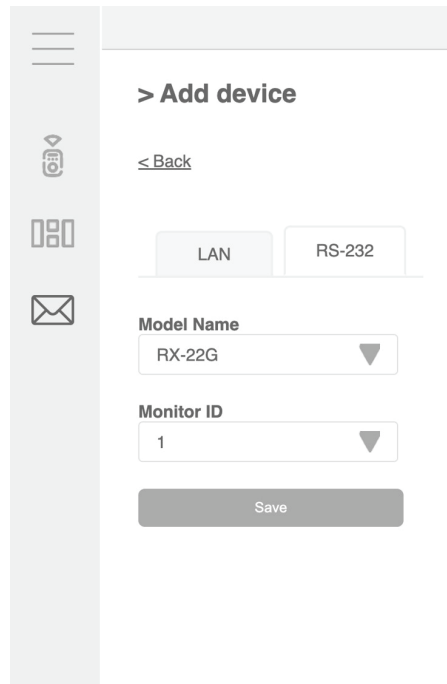
After saving, the display will appear in the list, as shown below.



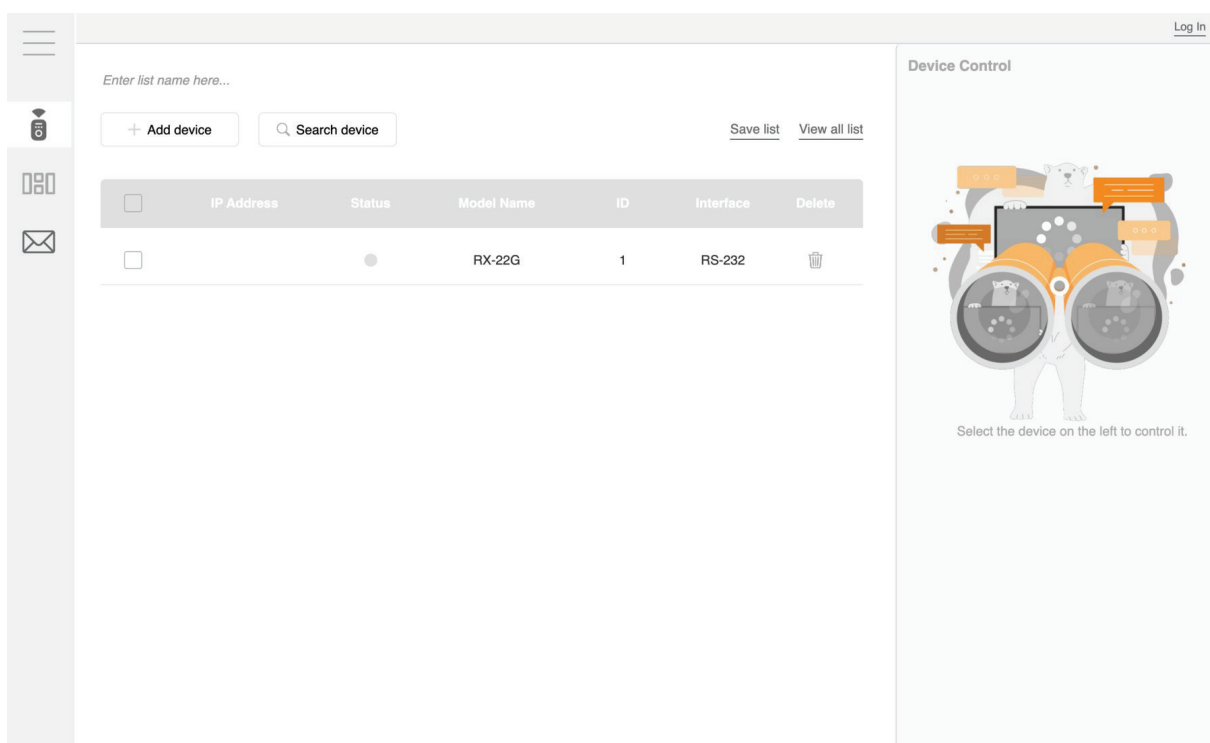
CONTROLS AND FUNCTIONS

Adding a Device - RS-232

After selecting the "RS-232" tab, first confirm the model of the display you want to connect. Then, locate and select the device in the dropdown menu to ensure the model is correct, allowing successful identification and control of the display. Once these steps are completed, enter the monitor ID and other required information, then click "Save," and the display will appear in the list.



The screenshot shows the 'Add device' form with the 'RS-232' tab selected. The form includes a 'Model Name' dropdown menu set to 'RX-22G' and a 'Monitor ID' dropdown menu set to '1'. A 'Save' button is located at the bottom of the form.



The screenshot shows the main interface with a list of devices and a 'Device Control' panel. The device list has the following columns: IP Address, Status, Model Name, ID, Interface, and Delete. One device is listed with Model Name 'RX-22G', ID '1', and Interface 'RS-232'. The 'Device Control' panel on the right features an illustration of a polar bear with two monitors and the text 'Select the device on the left to control it.'

IP Address	Status	Model Name	ID	Interface	Delete
	●	RX-22G	1	RS-232	🗑️

CONTROLS AND FUNCTIONS

Device Control Functions

Once you have added the displays you wish to control, you can begin using the features of Neovo Controller.

The **Device Control** panel consists of three main tabs:

1. **Display Setting**
2. **Input Source**
3. **Remote Control**

Display Setting

The **Display Setting** tab allows you to adjust the basic parameters of the display, such as brightness, volume, and color settings. When only one display is selected, you will receive real-time information from the display, including:

- Power status
- Current brightness level
- Current volume level
- Available control functions

For example, when adjusting the brightness value of the PD-42 display in the image, the brightness of the display will change immediately.

The screenshot displays the Neovo Controller interface. On the left is a sidebar with navigation icons. The main area shows a table of devices with columns for IP Address, Status, Model Name, ID, Interface, and Delete. The PD-42 device with IP 192.168.50.53 is selected. To the right, the 'Device Control' panel is open to the 'Display Setting' tab, showing sliders for Brightness (73) and Volume (54), and RGB Data sliders (44, 50, 45). There are also IR Lock and Key Lock toggle switches.

	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	
<input type="checkbox"/>	192.168.50.61	●	NSD-7501Q	1	LAN	
<input type="checkbox"/>	192.168.50.86	●	PD-42	1	LAN	
<input checked="" type="checkbox"/>	192.168.50.53	●	PD-42	1	LAN	
<input type="checkbox"/>	192.168.50.22	●	PD-42	1	LAN	
<input type="checkbox"/>	192.168.50.82	●	PD-42	1	LAN	

CONTROLS AND FUNCTIONS

When multiple displays are selected, adjusting the brightness value will apply the change to all selected displays simultaneously, provided they support brightness adjustment. This ensures that the displays remain synchronized in terms of brightness level.

Log In

Enter list name here...

+ Add device 🔍 Search device [Save list](#) [View all list](#)

<input type="checkbox"/>	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.89	●	IFP-8602	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	🗑️
<input checked="" type="checkbox"/>	192.168.50.61	●	NSD-7501Q	1	LAN	🗑️
<input checked="" type="checkbox"/>	192.168.50.22	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.86	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.53	●	PD-42	1	LAN	🗑️

Device Control

Display Setting Input Source Remote Control

Brightness 50

Volume 13

RGB Data

43

50

44

IR Lock Key Lock

CONTROLS AND FUNCTIONS

Input Source

The Input Source tab provides information about the available channels for the selected display. When a single display is selected, you will see all the input channels that the display can switch to.

The screenshot shows the 'Input Source' tab in a web interface. On the left, there is a sidebar with navigation icons. The main area has a search bar with the placeholder 'Enter list name here...' and buttons for '+ Add device' and 'Search device'. Below the search bar is a table with columns: IP Address, Status, Model Name, ID, Interface, and Delete. The table contains six rows of device information. The row with IP address 192.168.50.61 and model name NSD-7501Q is selected, highlighted in orange, and has a checkmark in the first column. To the right of the table are links for 'Save list' and 'View all list'. On the far right, there is a 'Device Control' panel with three tabs: 'Display Setting', 'Input Source', and 'Remote Control'. The 'Input Source' tab is active, showing a grid of buttons for various input channels: HDMI1, HDMI2, HDMI3, HDMI4, DP, VGA, OPS, Mediaplayer, Browser, CMS, PDF, and Custom.

	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.89	●	IFP-8602	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	🗑️
<input checked="" type="checkbox"/>	192.168.50.61	●	NSD-7501Q	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.22	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.86	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.53	●	PD-42	1	LAN	🗑️

However, when multiple displays are selected, only the channels that are common to all selected displays will be shown to ensure consistent operation.

The screenshot shows the 'Input Source' tab in a web interface, similar to the previous one, but with two devices selected. The table now has two rows highlighted in orange: the one with IP address 192.168.50.61 (model NSD-7501Q) and the one with IP address 192.168.50.86 (model PD-42). The 'Device Control' panel on the right now only shows buttons for HDMI1, HDMI2, DP, and VGA, which are the common input channels for both selected devices.

	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.89	●	IFP-8602	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	🗑️
<input checked="" type="checkbox"/>	192.168.50.61	●	NSD-7501Q	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.22	●	PD-42	1	LAN	🗑️
<input checked="" type="checkbox"/>	192.168.50.86	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.53	●	PD-42	1	LAN	🗑️

CONTROLS AND FUNCTIONS

Remote Control

The **Remote Control** tab allows you to control displays in real time using remote control features. Full remote control functionality is supported for the following models:

- NSD-Gen3
- IFP-Series
- PD-Series

These displays can be controlled as if using a physical remote, enabling real-time adjustments and operations.

The screenshot displays a web interface for remote control. On the left is a sidebar with navigation icons. The main area features a search bar with the placeholder text "Enter list name here...", an "Add device" button, and a "Search device" input field. Below this is a table listing devices with columns for selection, IP Address, Status, Model Name, ID, Interface, and Delete. The device with IP 192.168.50.28 (IFP-6503) is selected. To the right is a "Device Control" panel with tabs for "Display Setting", "Input Source", and "Remote Control". The "Remote Control" tab is active, showing a virtual remote interface with buttons for power, back, home, navigation, OK, and volume control.

<input type="checkbox"/>	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.89	●	IFP-8602	1	LAN	🗑️
<input checked="" type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.61	●	NSD-7501Q	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.22	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.86	●	PD-42	1	LAN	🗑️
<input type="checkbox"/>	192.168.50.53	●	PD-42	1	LAN	🗑️

CONTROLS AND FUNCTIONS

When multiple displays are selected, if any of the selected models do not support remote control functionality, only the power button will remain accessible for those displays. This ensures that basic control is still available while maintaining compatibility across models with varying remote control capabilities.

The screenshot displays a web interface for managing displays. On the left is a sidebar with navigation icons. The main area features a search bar with the placeholder text "Enter list name here...", an "Add device" button, and a "Search device" input field. Below this is a table listing devices with columns for selection, IP Address, Status, Model Name, ID, Interface, and Delete. Two devices are selected, highlighted in orange. To the right is a "Device Control" panel with tabs for "Display Setting", "Input Source", and "Remote Control". The "Remote Control" tab is active, showing a virtual remote interface with a power button, navigation arrows, a central "OK" button, and volume controls.

<input type="checkbox"/>	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.89	●	IFP-8602	1	LAN	
<input checked="" type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	
<input checked="" type="checkbox"/>	192.168.50.61	●	NSD-7501Q	1	LAN	
<input type="checkbox"/>	192.168.50.22	●	PD-42	1	LAN	
<input type="checkbox"/>	192.168.50.86	●	PD-42	1	LAN	
<input type="checkbox"/>	192.168.50.53	●	PD-42	1	LAN	

CONTROLS AND FUNCTIONS

Device List Management

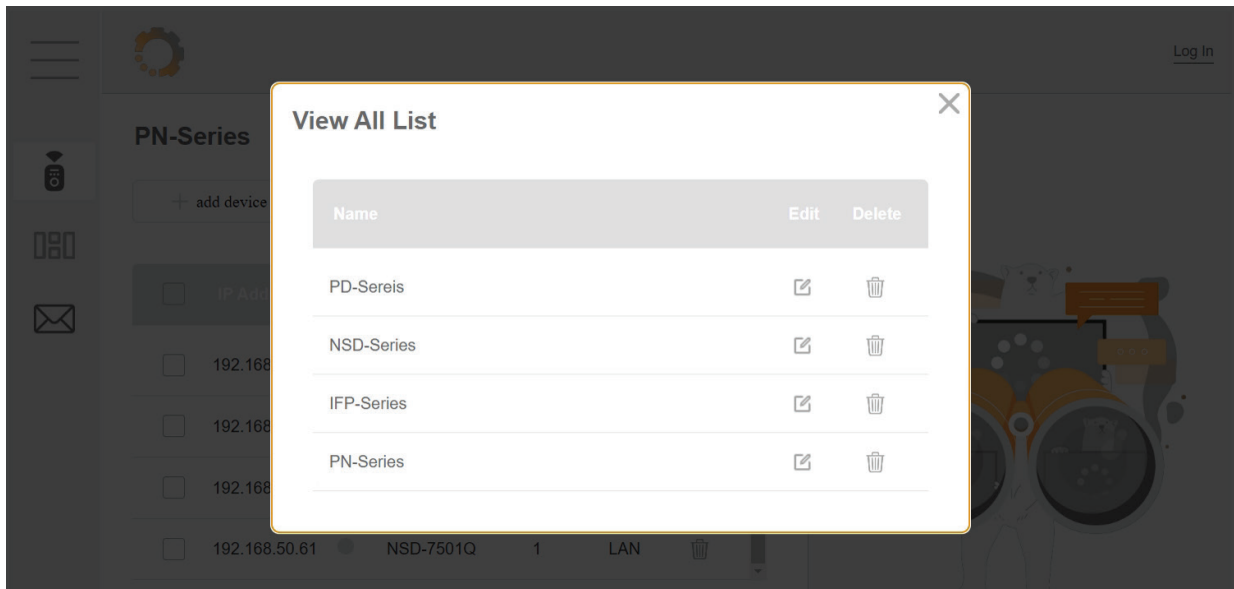
Above the device list, there are two buttons: **Save list** and **View All list**.

Enter list name here...

[Save list](#) [View all list](#)

<input type="checkbox"/>	IP Address	Status	Model Name	ID	Interface	Delete
<input type="checkbox"/>	192.168.50.89	●	IFP-8602	1	LAN	
<input type="checkbox"/>	192.168.50.28	●	IFP-6503	1	LAN	

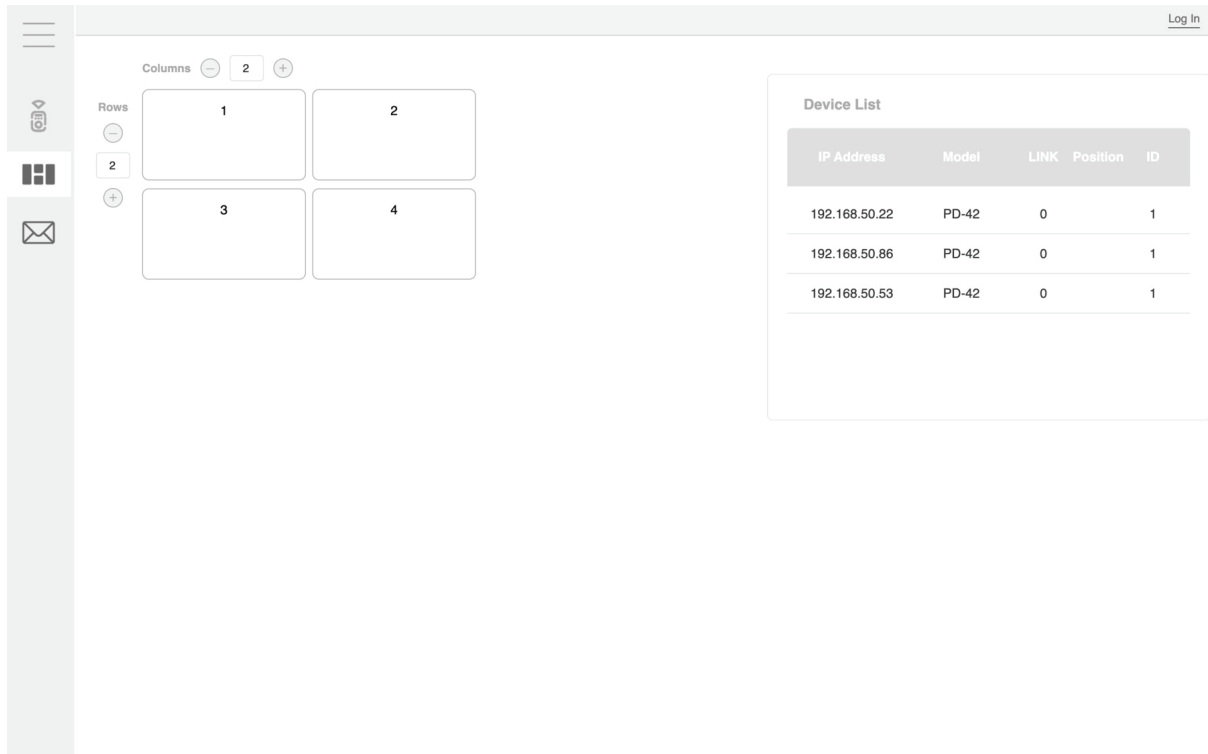
We recognize that some users may own a large number of AG Neovo displays. Therefore, you can define custom names for each list and use these lists to group displays for more efficient control. This allows you to easily manage and operate different sets of displays based on your requirements.



CONTROLS AND FUNCTIONS

Video Wall Functionality

Neovo Controller automatically imports the displays that were added or searched previously and determines if the displays support Video Wall functionality. In this section, we will use the PD-42 as an example.



You will see the Video Wall settings on the left side of the screen, while the right side displays the list of displays that support Video Wall functionality.

The Video Wall function allows you to create a seamless large screen by combining multiple displays, which can be managed centrally using Neovo Controller.

CONTROLS AND FUNCTIONS

Activating the Video Wall is simple: first, click on the position where you want to place a screen, then select the display to be placed in that position. The display will immediately be activated in Video Wall mode, and all changes are reflected in real time.

The screenshot shows a web interface for configuring a video wall. On the left, there is a sidebar with icons for menu, camera, grid, and mail. The main area features a 2x2 grid of display positions. The top-left position (1) is labeled '1' with IP '192.168.50.22'. The top-right position (2) is highlighted in orange and labeled '2' with IP '192.168.50.53'. The bottom-left position (3) is labeled '3' with IP '192.168.50.86'. The bottom-right position (4) is empty. Above the grid, 'Columns' is set to 2 and 'Rows' is set to 2. On the right, a 'Device List' table is displayed.

IP Address	Model	LINK	Position	ID
192.168.50.22	PD-42	0	1	1
192.168.50.86	PD-42	0	3	1
192.168.50.53	PD-42	0	2	1

Note: The maximum supported configuration for the video wall is 5x5.

The screenshot shows the same web interface but with a 5x5 grid of display positions. The top-left position (1) is labeled '1' with IP '192.168.50.22'. The top-second position (2) is highlighted in orange and labeled '2' with IP '192.168.50.53'. The top-third position (3) is labeled '3' with IP '192.168.50.86'. The other positions (4-25) are empty. Above the grid, 'Columns' is set to 5 and 'Rows' is set to 5. On the right, the 'Device List' table is the same as in the previous screenshot.

IP Address	Model	LINK	Position	ID
192.168.50.22	PD-42	0	1	1
192.168.50.86	PD-42	0	3	1
192.168.50.53	PD-42	0	2	1

CONTROLS AND FUNCTIONS

If you find that a display is in the wrong position, you can even drag and drop the display to swap its position with another. The Video Wall will respond instantly to the new layout.

Additionally, to remove a display from the Video Wall, simply click the **X** button below the display, and it will be removed from the configuration.

Columns: 2

Rows: 2

IP Address	Model	LINK	Position	ID
192.168.50.22	PD-42	0	1	1
192.168.50.86	PD-42	0	3	1
192.168.50.53	PD-42	0	2	1



Columns: 2

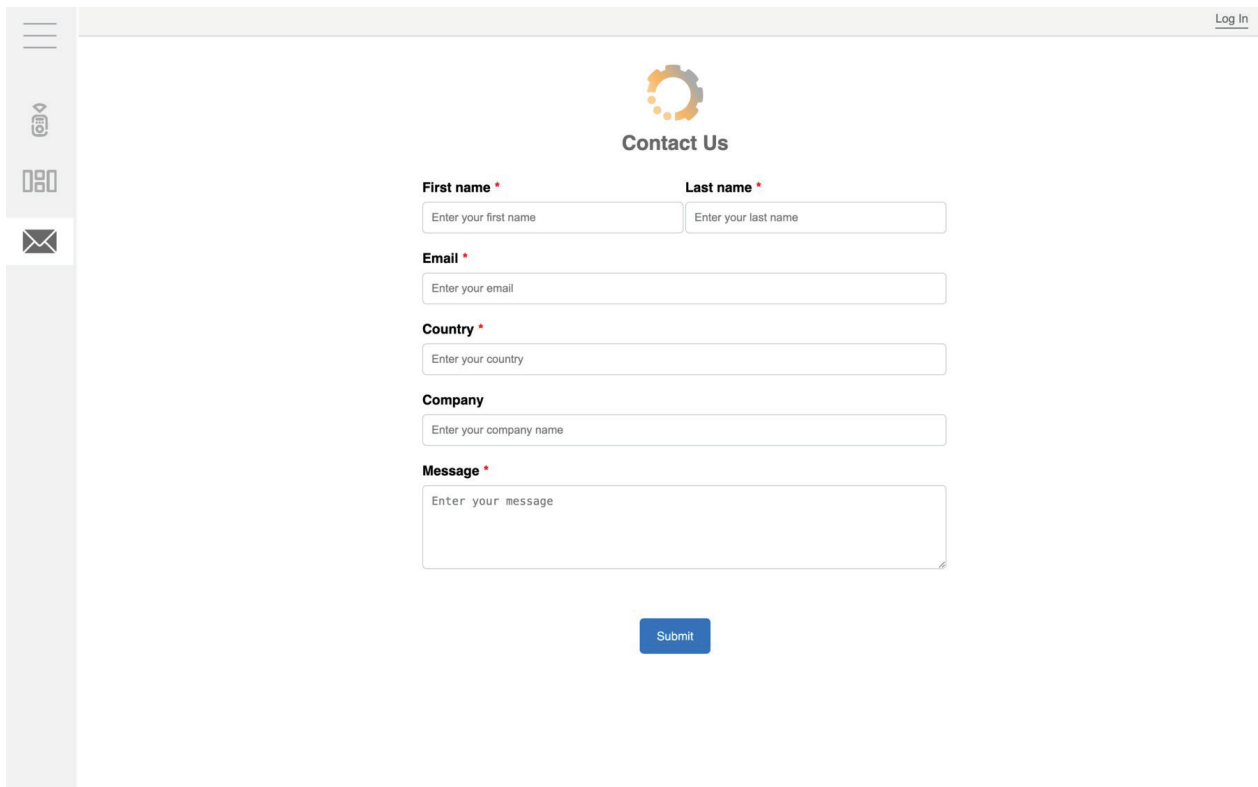
Rows: 2

IP Address	Model	LINK	Position	ID
192.168.50.22	PD-42	0	1	1
192.168.50.86	PD-42	0	3	1
192.168.50.53	PD-42	0	4	1

CONTROLS AND FUNCTIONS

Feedback and Contact

We hope Neovo Controller helps end customers, system integrators (SI), and partners use, manage, and control AG Neovo displays more effectively. We are always eager to hear your thoughts and suggestions for improvement. If you have any feedback or issues to share, please navigate to the Contact Us page, fill in your details, and let us know about your experience. We will get back to you as soon as possible.



The screenshot shows a web interface for the 'Contact Us' form. On the left is a vertical sidebar with icons for a menu, home, and mail. The top right corner has a 'Log In' link. The main content area features a gear icon and the title 'Contact Us'. The form includes the following fields:

- First name ***: Input field with placeholder 'Enter your first name'.
- Last name ***: Input field with placeholder 'Enter your last name'.
- Email ***: Input field with placeholder 'Enter your email'.
- Country ***: Input field with placeholder 'Enter your country'.
- Company**: Input field with placeholder 'Enter your company name'.
- Message ***: Text area with placeholder 'Enter your message'.

A blue 'Submit' button is located at the bottom center of the form.