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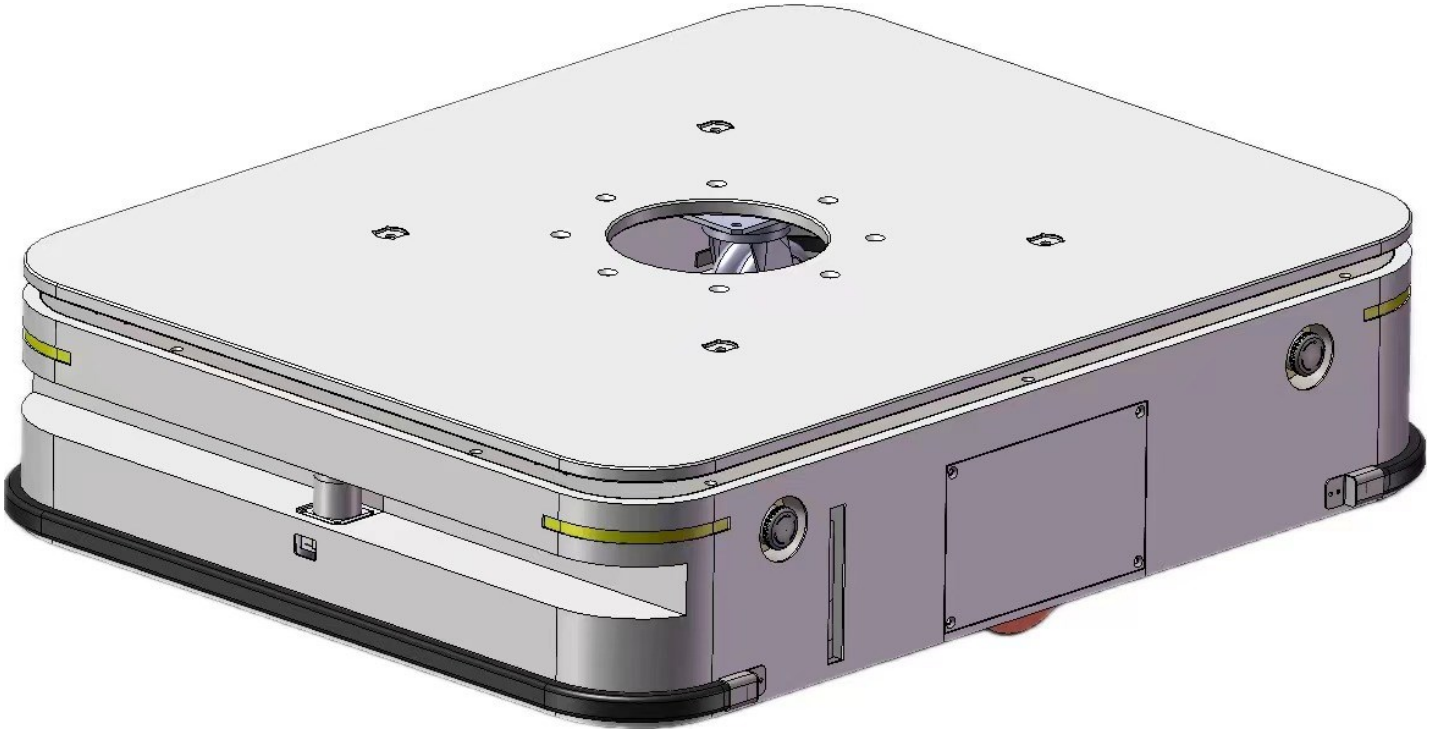
New Robot Configuration



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Model	CQR-1500	**SN**	**CQR152401080057**
Engineer	**Allen Cheung**	**Date**	**Jan 8 2024**

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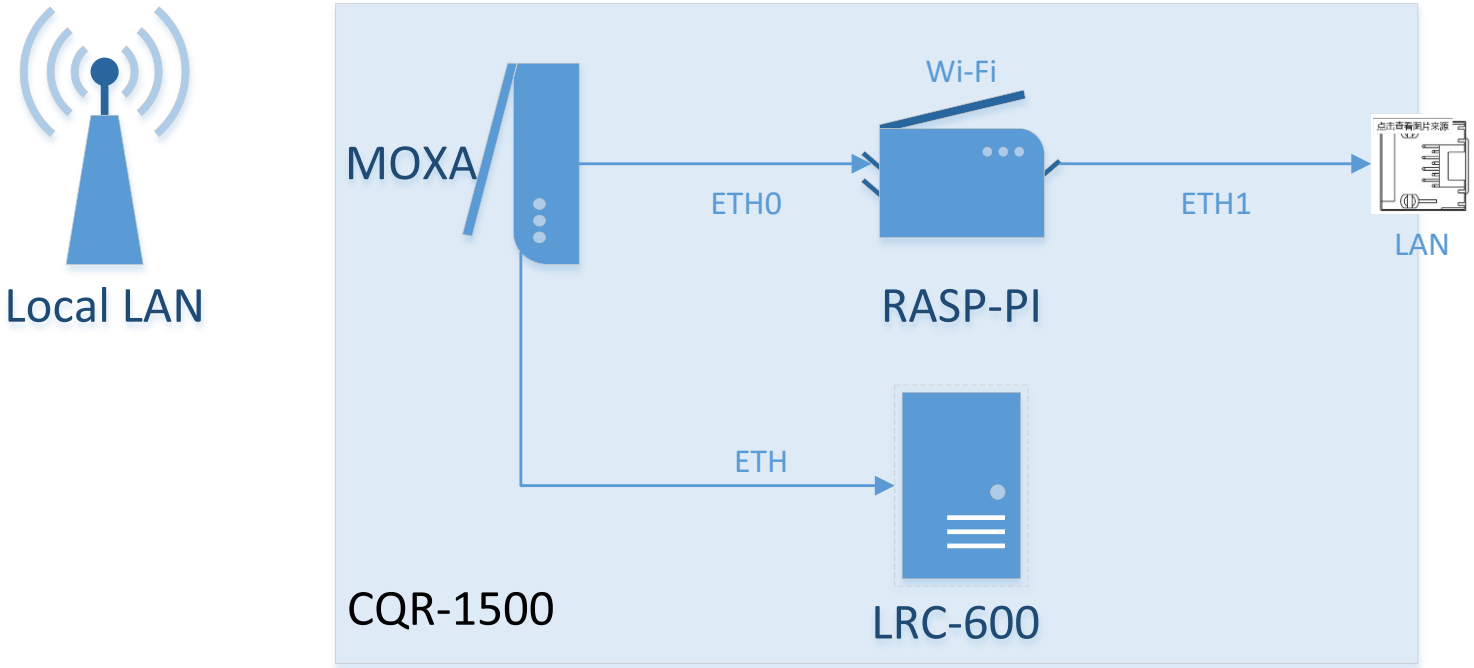
- **Network Topology**



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Local LAN	SSID	Laser_Cart	
	PW	okagv2015	
	IP	192.168.1.1	
CQR-1500	MOXA-1137C	WLAN	192.168.1.157
			ID:admin
			PW:moxa
		LAN	192.168.0.1
	RASP-PI	WLAN	192.168.1.57
		ETH0	192.168.0.3
		ETH1	192.168.126.252
	LRC-600	ETH	192.168.0.2
		Remote server	192.168.1.2/9007
			192.168.1.251/51888
			192.168.1.252/51888
			192.168.0.3/51888
			192.168.126.253/51888(wired)

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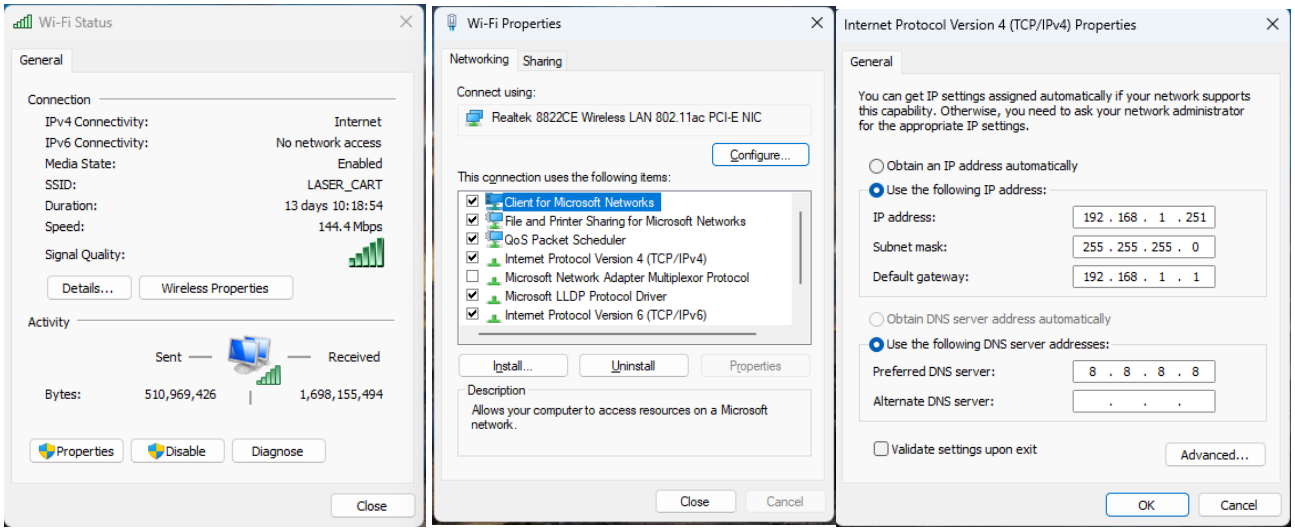
Network settings on the computer (Already configured on the Y4B computer)

There are two network settings on the computer:

To get to the Internet Protocol Version 4 (TCP/IPv4) Properties, follow the steps below:

Control Panel > Network and Internet > Network and Sharing Center > Connections > Properties > Internet Protocol Version 4 (TCP/IPv4) > Properties

1. Wifi to Laser_Cart:
    a. Static IP:



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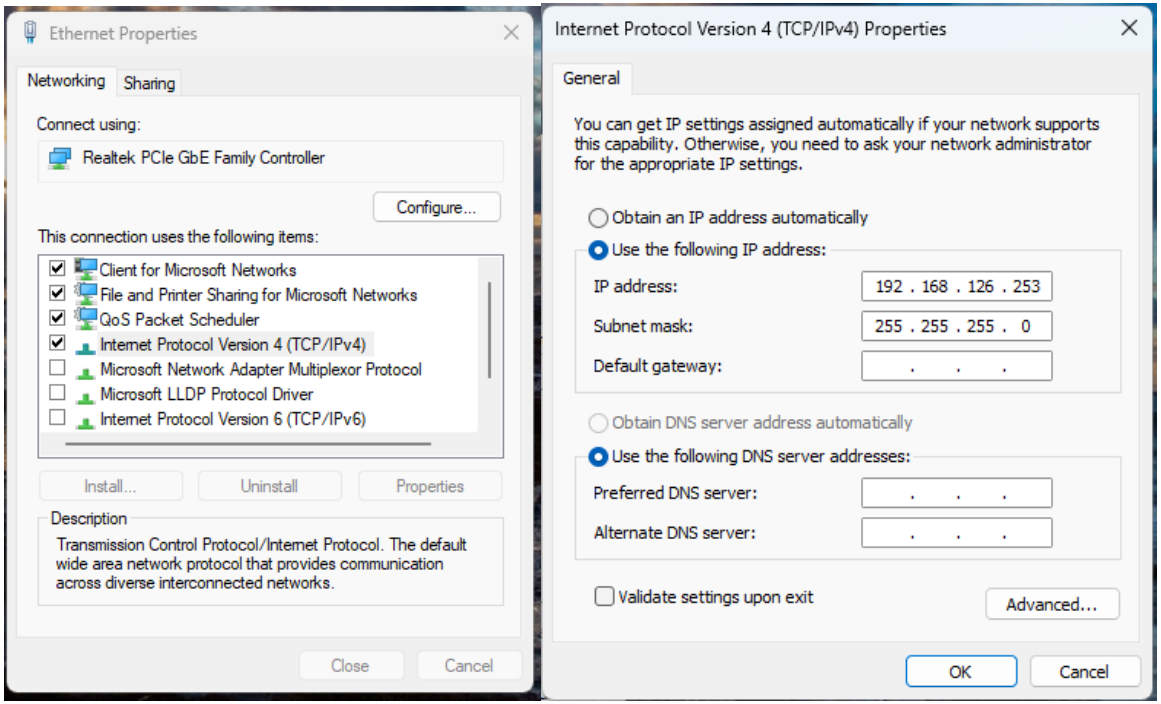
2. Ethernet Cable directly connected to the robot:
    a. Static IP: 192.168.126.253



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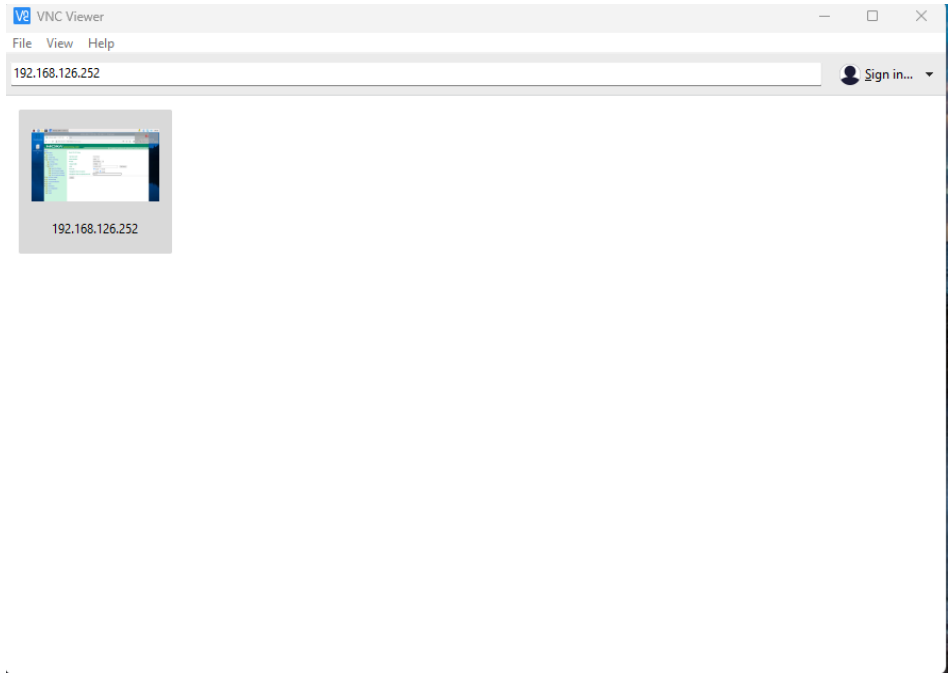
Run VNC Viewer

While the ethernet cable is being connected, run the VNC Viewer program.

1. Connecting to the Raspberry Pie IP 192.168.126.252 with ID: liftians and password being the same as of MM. The 192.168.126.252 IP is the static IP within the Raspberry Pie environment



2. Inside the VNC Viewer, open the web browser to access 192.168.0.1 Moxa page to change the password and other network settings
3. Save and restart the Moxa program to make the changes effective. It will take about one minute to restart the Moxa router

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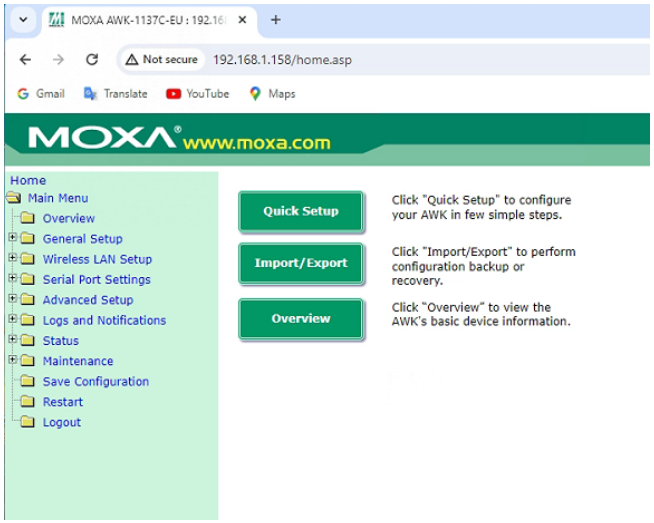
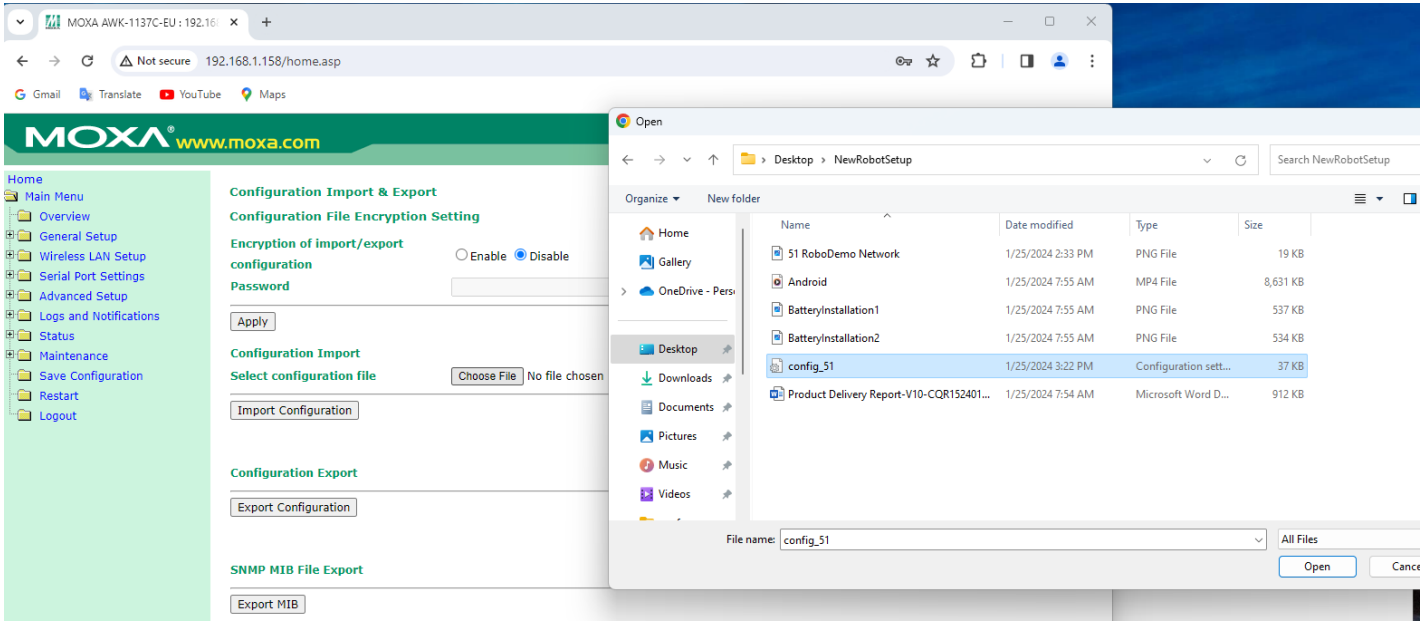
Log in to Moxa page outside VNC Viewer

1. Open the web browser with IP: 192.168.1.1XX, XX is the robot number. Click on Import/Export on the home page.



2. Import the network configuration file from bot 51.

   Choose File (Desktop > NewRobotSetup > Config_51) > Open > Import Configuration



3. Change the IP address to 192.168.1.1XX from 192.168.1.151

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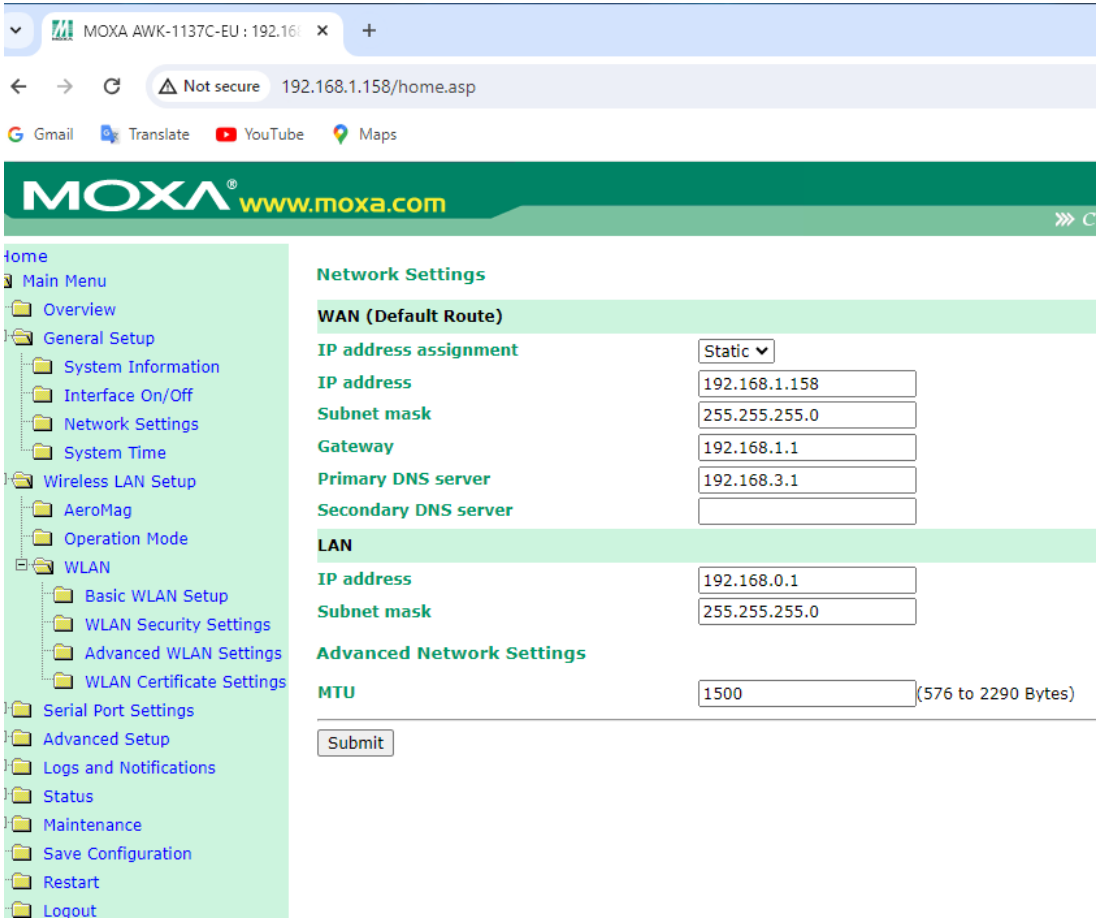
4. General Setup > Network Settings



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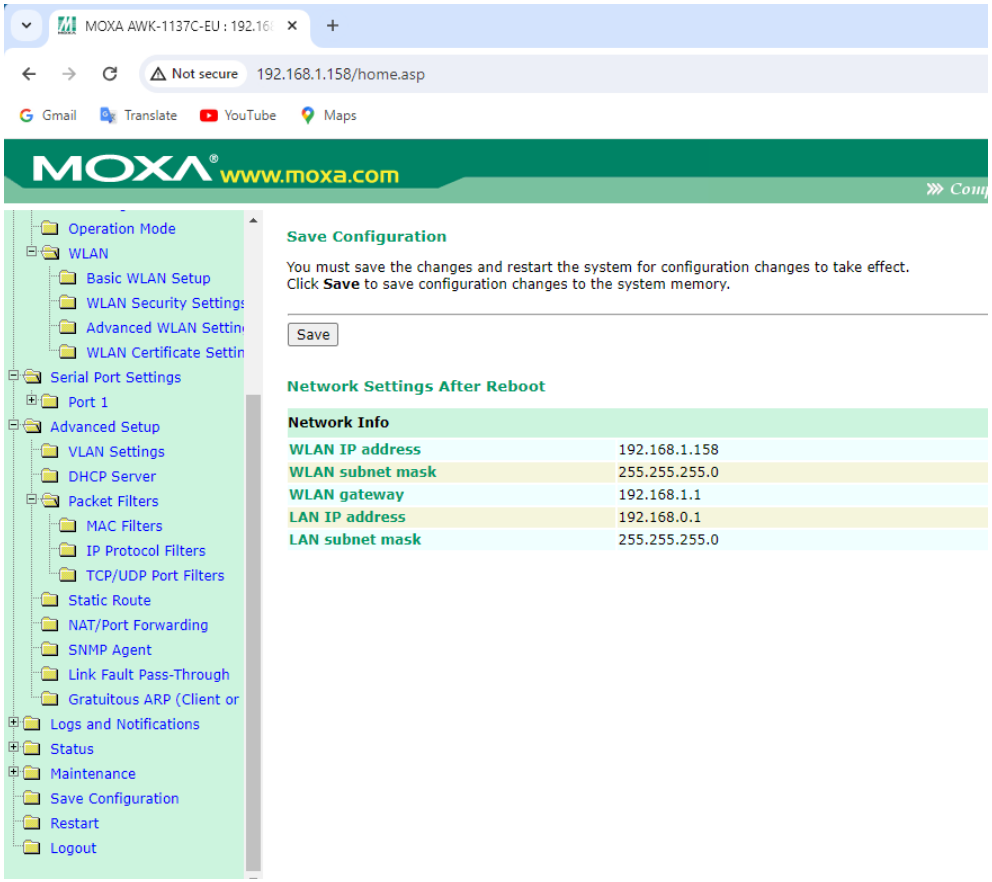
5. Save Configuration and Restart



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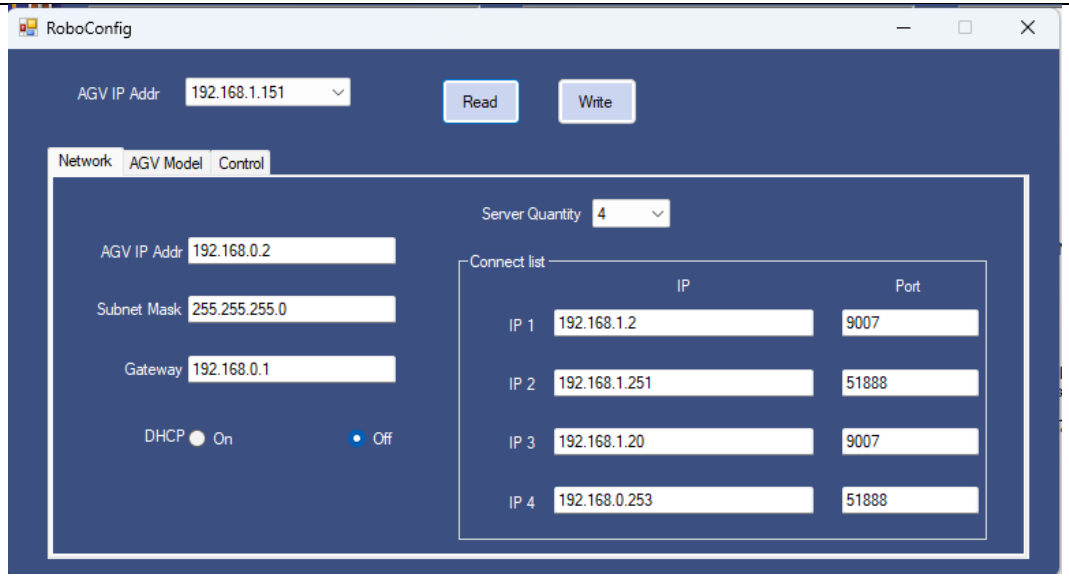
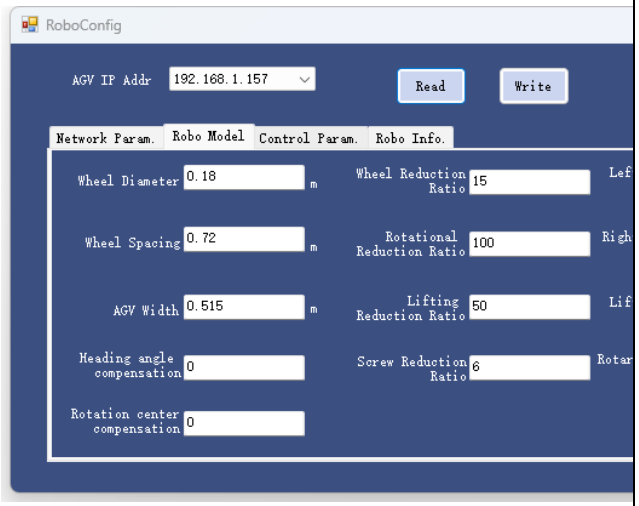
Configuration

Use the network configuration for Bot 51 as HWF network connections (Primary and Secondary Servers)

RoboDemo connection > RoboCheck > Protocal Switch to LiftiansTest > RoboConfig to select an IP > Read from Network Param> Modify Network parameters and Write

Network Config (HWF)	Robo. Model Config.
	
Robo. Control Config.	Robo. Info.

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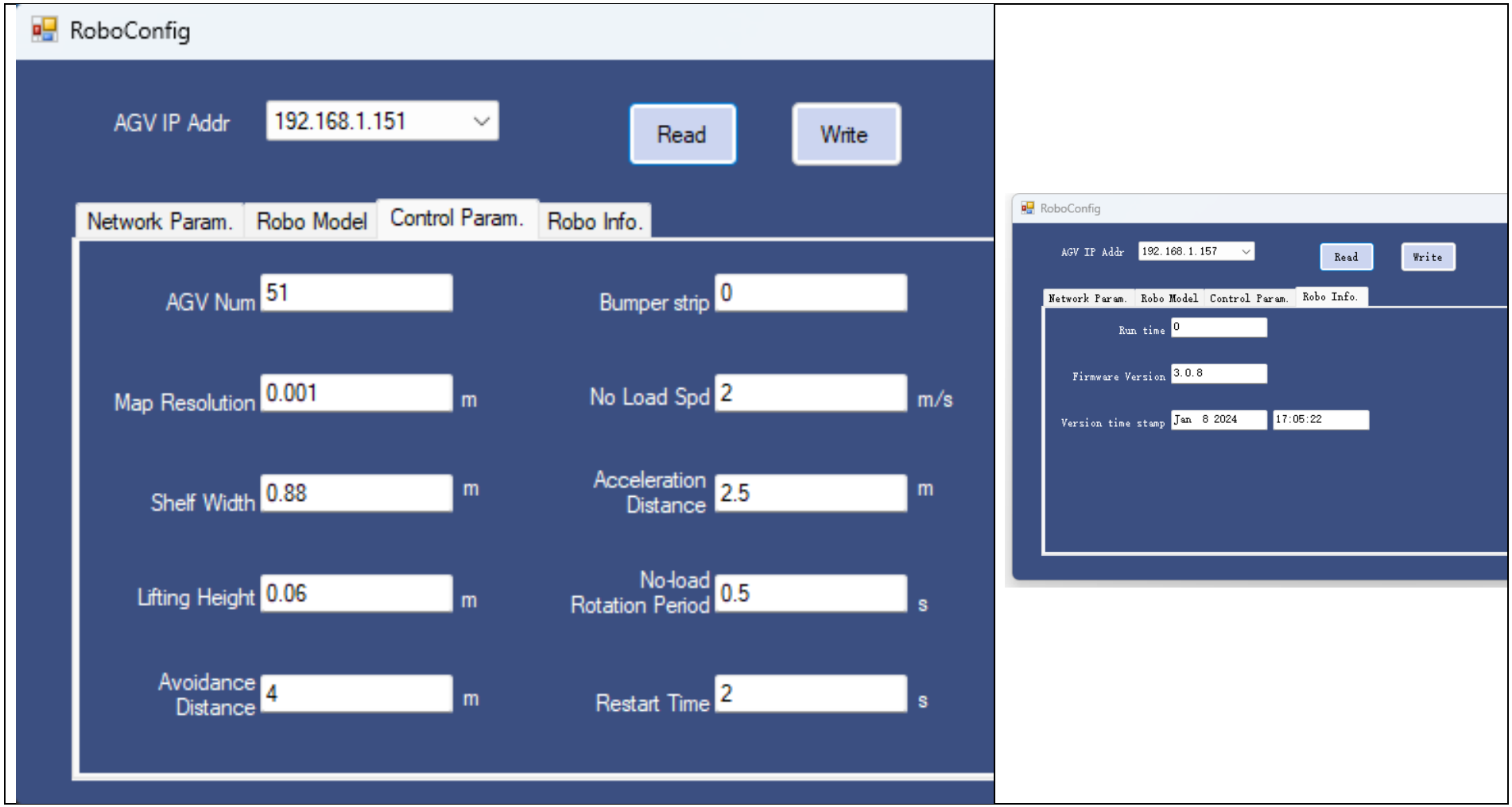
RoboConfig
AGV IP Addr
192.168.1.151
Read
Write
Network Param.
Robo Model
Control Param.
Robo Info.
AGV Num
51
Bumper strip
0
Map Resolution
0.001
m
No Load Spd
2
m/s
Shelf Width
0.88
m
Acceleration Distance
2.5
m
Lifting Height
0.06
m
No-load Rotation Period
0.5
s
Avoidance Distance
4
m
Restart Time
2
s
RoboConfig
AGV IP Addr
192.168.1.157
Read
Write
Network Param.
Robo Model
Control Param.
Robo Info.
Run time
0
Firmware Version
3.0.8
Version time stamp
Jan 8 2024
17:05:22

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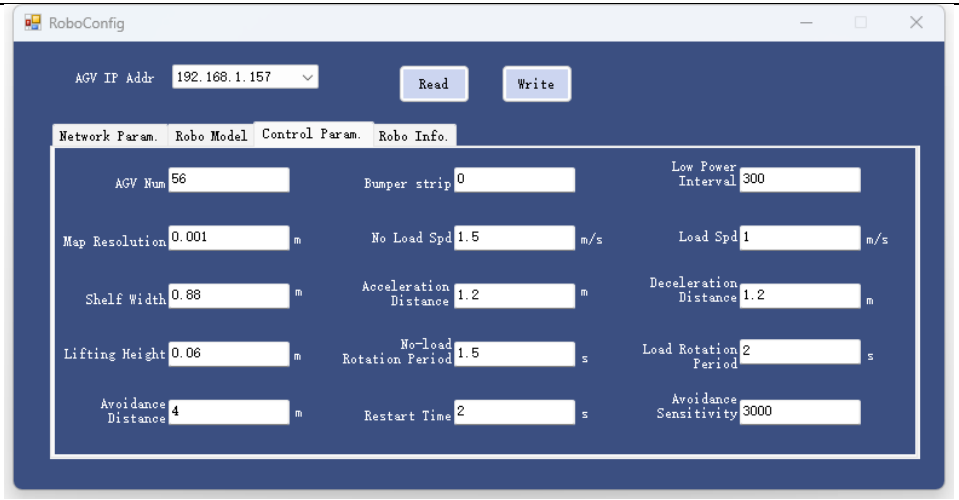
RoboConfig
AGV IP Addr
192.168.1.157
Read
Write
Network Param.
Robo Model
Control Param.
Robo Info.
AGV Num
56
Bumper strip
0
Low Power Interval
300
Map Resolution
0.001
m
No Load Spd
1.5
m/s
Load Spd
1
m/s
Shelf Width
0.88
m
Acceleration Distance
1.2
m
Deceleration Distance
1.2
m
Lifting Height
0.06
m
No-load Rotation Period
1.5
s
Load Rotation Period
2
s
Avoidance Distance
4
m
Restart Time
2
s
Avoidance Sensitivity
3000

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RoboConfig
AGV IP Addr
192.168.1.151
Read
Write
Network Param.
Robo Model
Control Param.
Robo Info.
Server Quantity
4
AGV IP Addr
192.168.0.2
Subnet Mask
255.255.255.0
Gateway
192.168.0.1
DHCP
On
Off
Connect list
IP
Port
IP 1
192.168.1.2
9007
IP 2
192.168.1.251
51888
IP 3
192.168.1.20
9007
IP 4
192.168.0.253
51888


RoboConfig
AGV IP Addr
192.168.1.151
Read
Write
Network Param.
Robo Model
Control Param.
Robo Info.
Wheel Diameter
0.18
m
Wheel Spacing
0.726
m
AGV Width
0.515
m
Heading angle compensation
-0.2
Rotation center compensation
0
Wheel Reduction Ratio
15
Rotational Reduction Ratio
100
Lifting Reduction Ratio
50
Screw Reduction Ratio
6
Left Motor Encoder Lines
10000
Right Motor Encoder Lines
10000
Lift Motor Encoder Lines
10000
Rotary Motor Encoder Lines
10000

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