

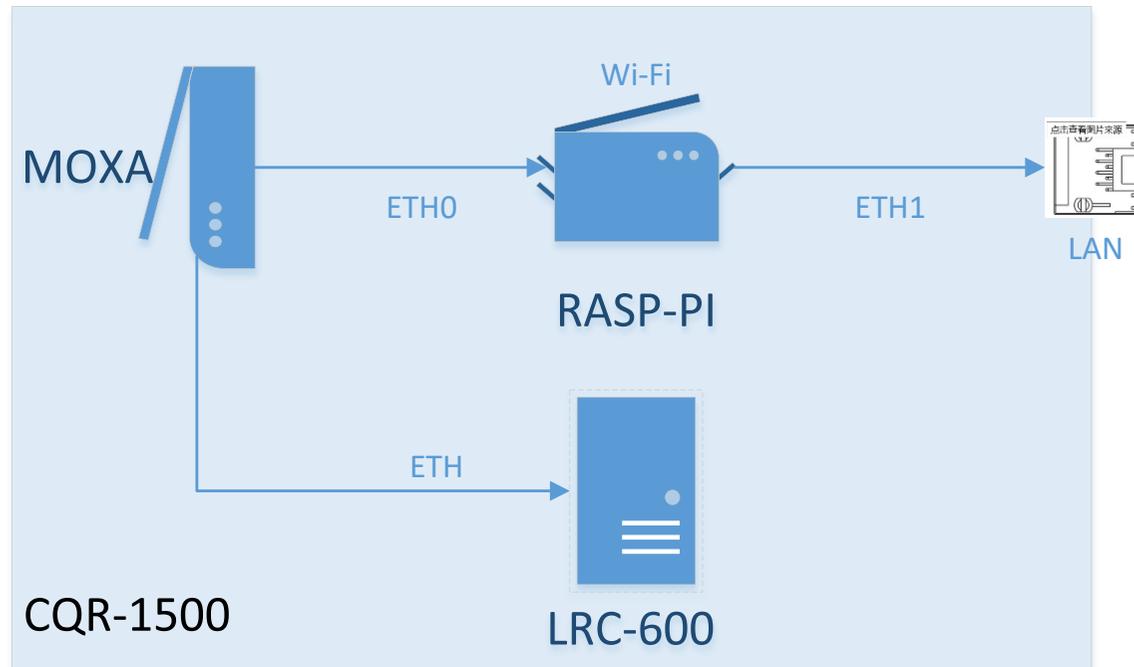
New Robot Configuration





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

● Network Topology



Local LAN	SSID	Laser_Cart		
	PW	okagy2015		
	IP	192.168.1.1		
CQR-1500	MOXA-1137C	WLAN	192.168.1.157	
			ID:admin	
			PW:moxa	
	RASP-PI	LAN	192.168.0.1	
			WLAN	192.168.1.57
			ETH0	192.168.0.3
	LRC-600	Remote server	ETH1	192.168.126.252
			ETH	192.168.0.2
				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)			

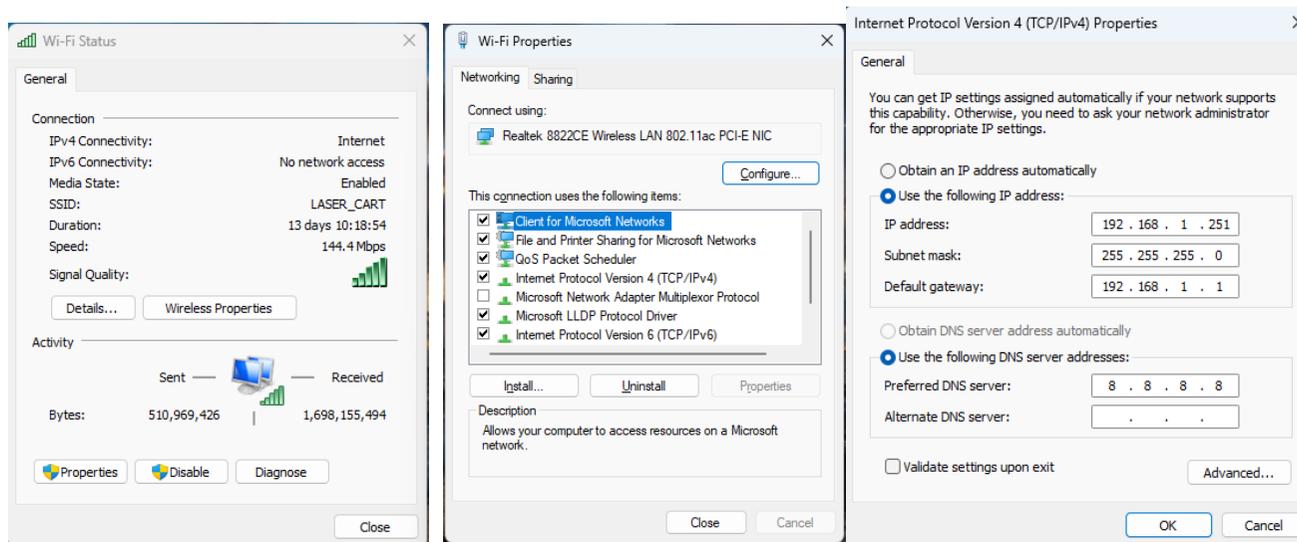
● Network settings on the computer (Already configured on the Y4B computer)

There are two network settings on the computer:

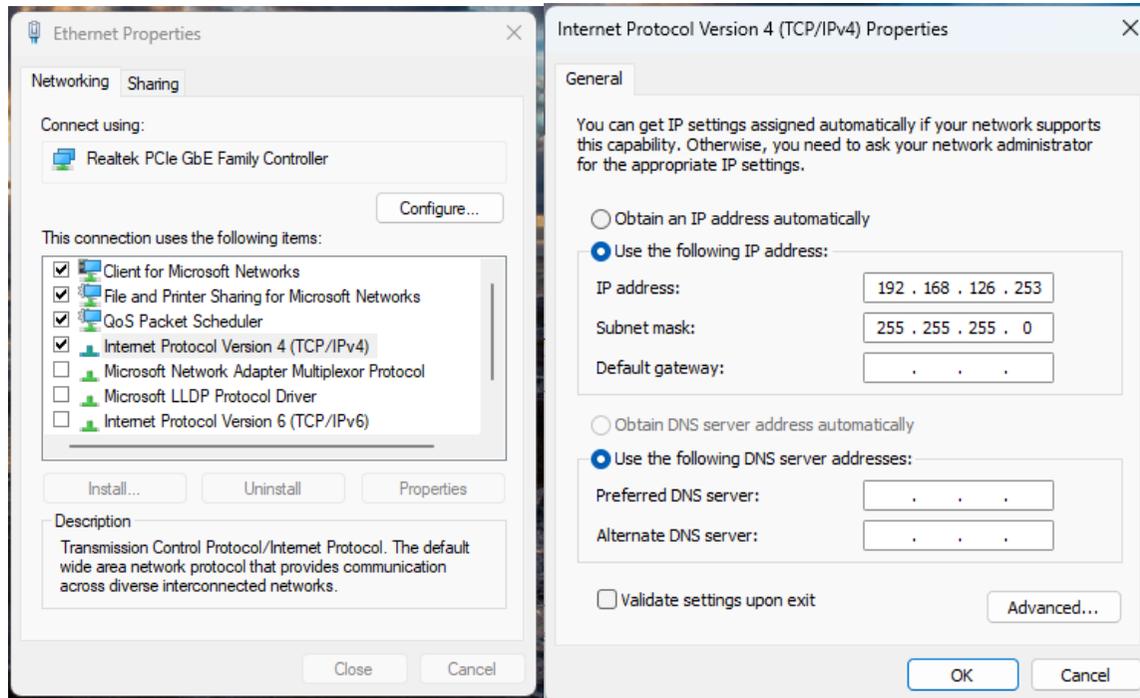
To get to the Internet Protocol Version 4 (TCP/IPv4) Properties, follow the steps below:

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:



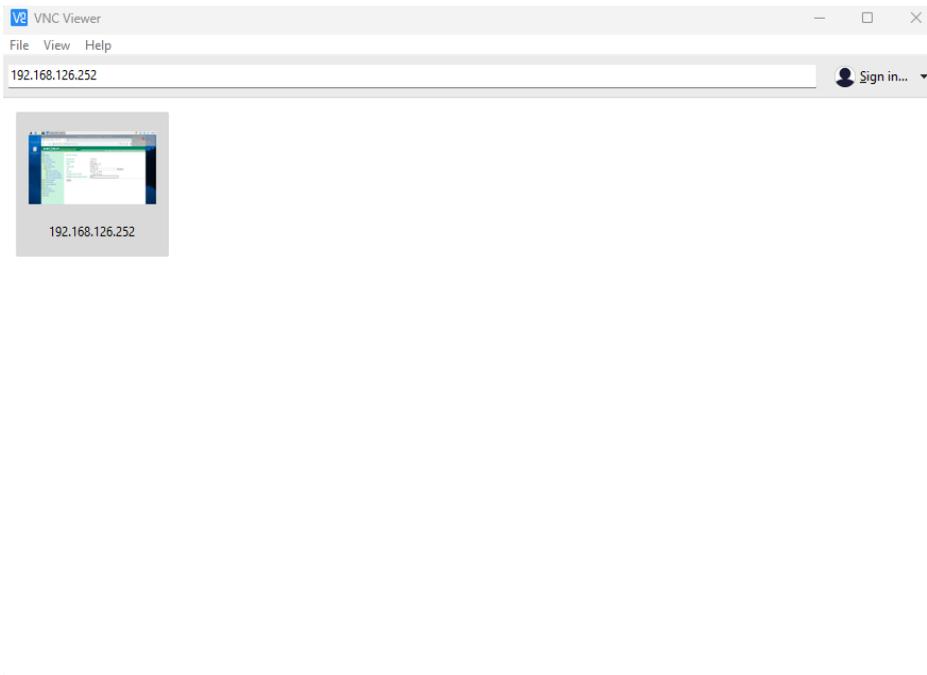
2. Ethernet Cable directly connected to the robot:
 - a. Static IP: 192.168.126.253



● Run VNC Viewer

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

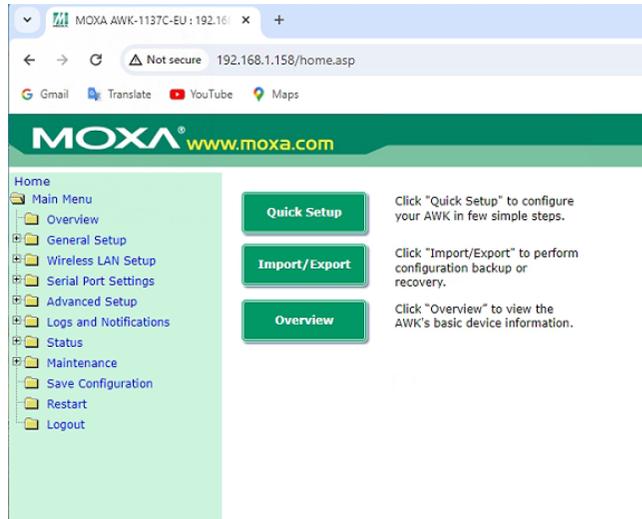
1. Connecting to the Raspberry Pi IP 192.168.126.252 with ID: liftians and password being the same as of MM. The 192.168.126.252 IP is the static IP within the Raspberry Pi environment



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

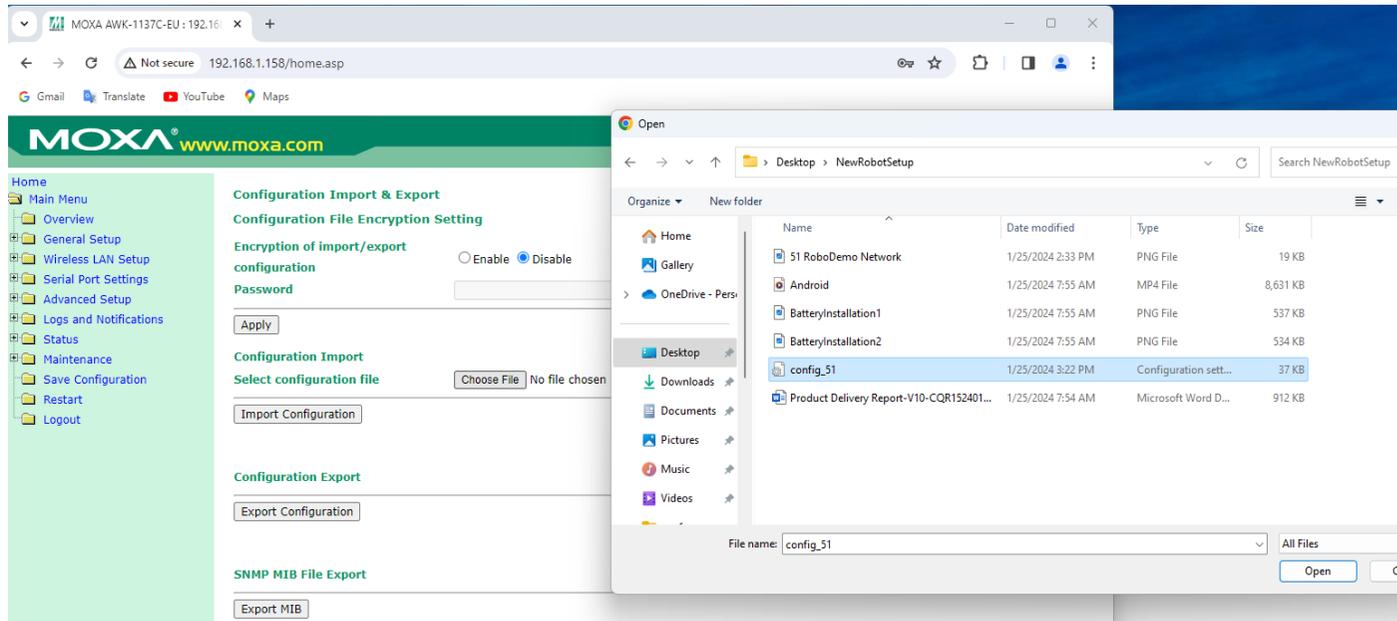
● Log in to Moxa page outside VNC Viewer

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



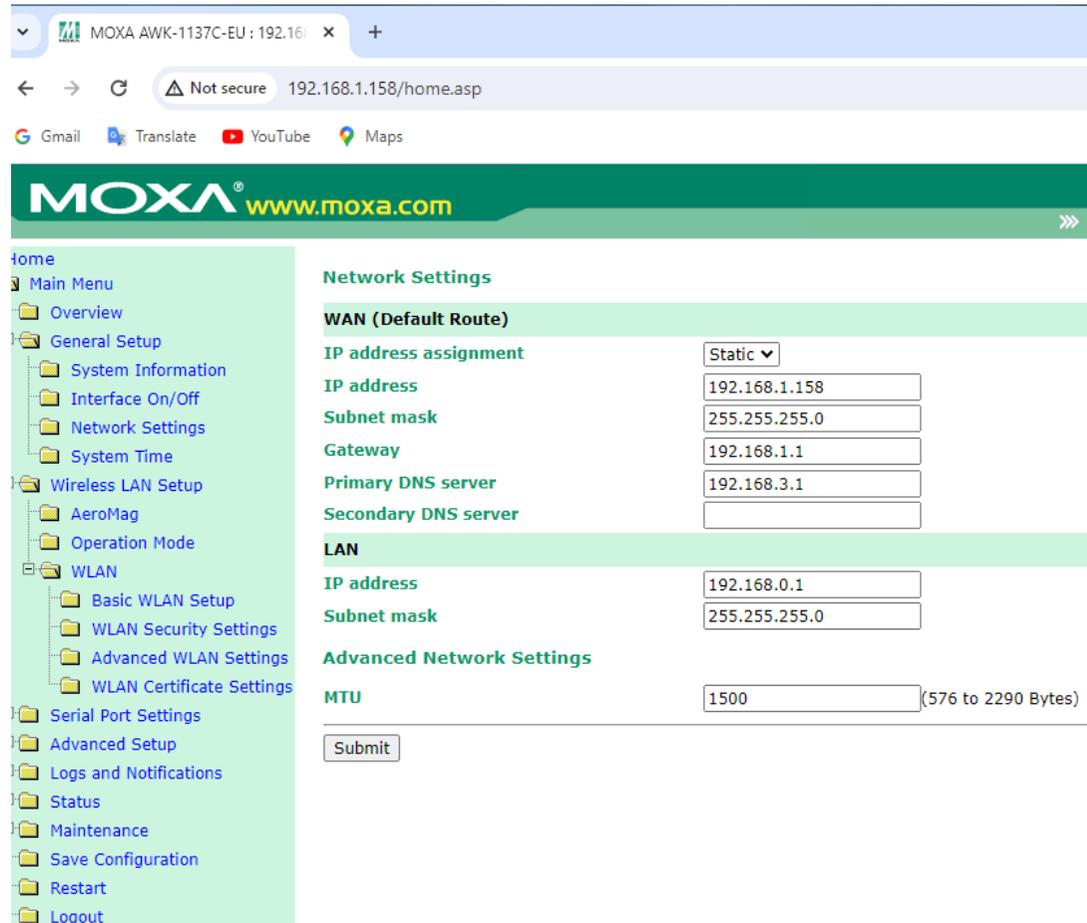
2. Import the network configuration file from bot 51.

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



3. Change the IP address to 192.168.1.1XX from 192.168.1.151

4. General Setup > Network Settings



The screenshot shows a web browser window displaying the MOXA web interface. The browser's address bar shows the URL `192.168.1.158/home.asp`. The page title is "MOXA" and the URL is `www.moxa.com`. The left sidebar contains a navigation menu with the following items: Home, Main Menu, Overview, General Setup (expanded), System Information, Interface On/Off, Network Settings, System Time, Wireless LAN Setup, AeroMag, Operation Mode, WLAN (expanded), Basic WLAN Setup, WLAN Security Settings, Advanced WLAN Settings, WLAN Certificate Settings, Serial Port Settings, Advanced Setup, Logs and Notifications, Status, Maintenance, Save Configuration, Restart, and Logout. The main content area is titled "Network Settings" and is divided into three sections: "WAN (Default Route)", "LAN", and "Advanced Network Settings".

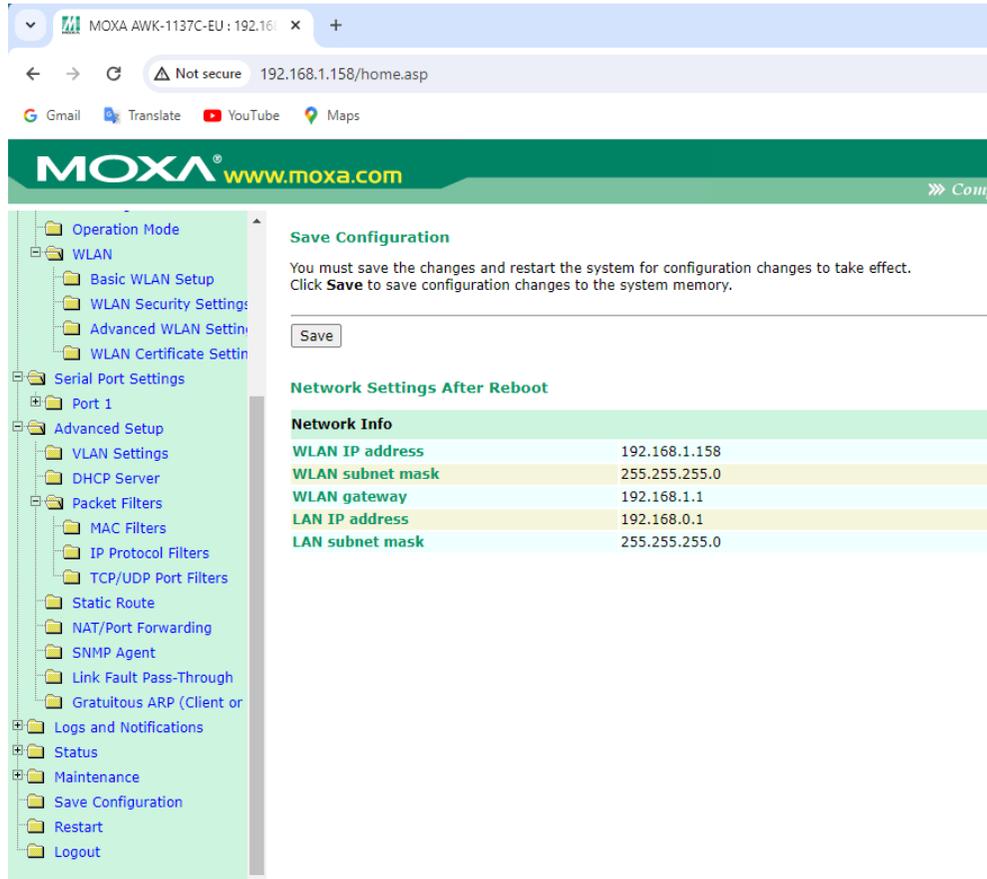
WAN (Default Route)	
IP address assignment	Static
IP address	192.168.1.158
Subnet mask	255.255.255.0
Gateway	192.168.1.1
Primary DNS server	192.168.3.1
Secondary DNS server	

LAN	
IP address	192.168.0.1
Subnet mask	255.255.255.0

Advanced Network Settings	
MTU	1500 (576 to 2290 Bytes)

Submit

5. Save Configuration and Restart



MOXA AWK-1137C-EU : 192.168.1.158

Not secure 192.168.1.158/home.asp

Gmail Translate YouTube Maps

MOXA www.moxa.com

- Operation Mode
 - WLAN
 - Basic WLAN Setup
 - WLAN Security Settings
 - Advanced WLAN Settings
 - WLAN Certificate Settings
 - Serial Port Settings
 - Port 1
 - Advanced Setup
 - VLAN Settings
 - DHCP Server
 - Packet Filters
 - MAC Filters
 - IP Protocol Filters
 - TCP/UDP Port Filters
 - Static Route
 - NAT/Port Forwarding
 - SNMP Agent
 - Link Fault Pass-Through
 - Gratuitous ARP (Client or Server)
 - Logs and Notifications
 - Status
 - Maintenance
 - Save Configuration
 - Restart
 - Logout

Save Configuration

You must save the changes and restart the system for configuration changes to take effect. Click **Save** to save configuration changes to the system memory.

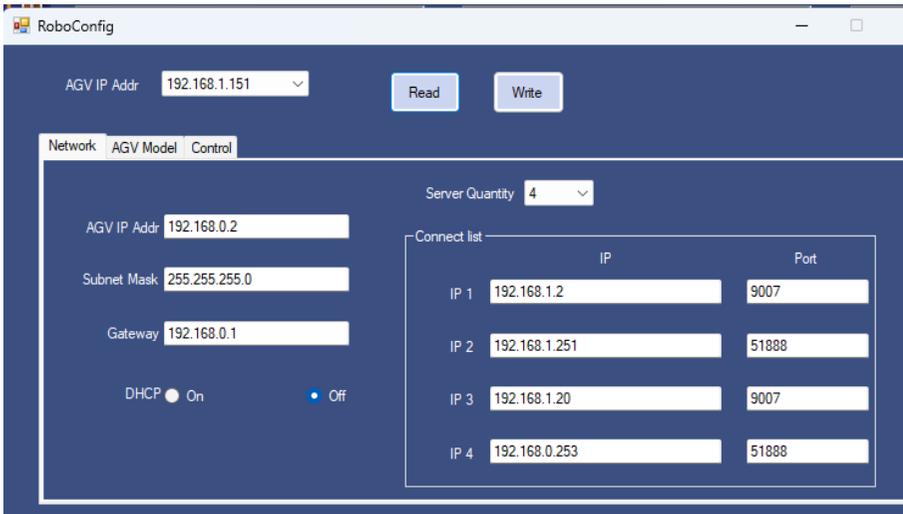
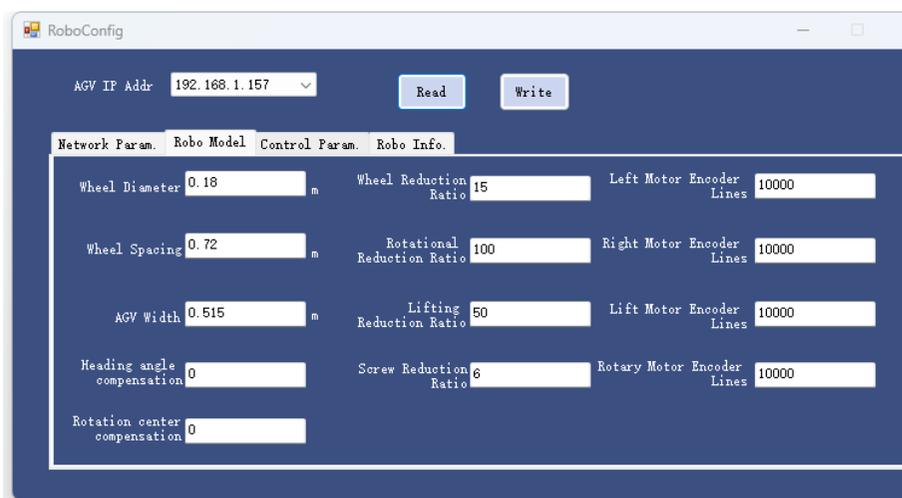
Network Settings After Reboot

Network Info	
WLAN IP address	192.168.1.158
WLAN subnet mask	255.255.255.0
WLAN gateway	192.168.1.1
LAN IP address	192.168.0.1
LAN subnet mask	255.255.255.0

● Configuration

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

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

Network Config (HWF)	Robo. Model Config.																									
 <table border="1" data-bbox="607 884 1077 1139"> <thead> <tr> <th>IP</th> <th>Port</th> </tr> </thead> <tbody> <tr> <td>IP 1: 192.168.1.2</td> <td>9007</td> </tr> <tr> <td>IP 2: 192.168.1.251</td> <td>51888</td> </tr> <tr> <td>IP 3: 192.168.1.20</td> <td>9007</td> </tr> <tr> <td>IP 4: 192.168.0.253</td> <td>51888</td> </tr> </tbody> </table>	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	 <table border="1" data-bbox="1182 815 2033 1121"> <tbody> <tr> <td>Wheel Diameter: 0.18 m</td> <td>Wheel Reduction Ratio: 15</td> <td>Left Motor Encoder Lines: 10000</td> </tr> <tr> <td>Wheel Spacing: 0.72 m</td> <td>Rotational Reduction Ratio: 100</td> <td>Right Motor Encoder Lines: 10000</td> </tr> <tr> <td>AGV Width: 0.515 m</td> <td>Lifting Reduction Ratio: 50</td> <td>Lift Motor Encoder Lines: 10000</td> </tr> <tr> <td>Heading angle compensation: 0</td> <td>Screw Reduction Ratio: 6</td> <td>Rotary Motor Encoder Lines: 10000</td> </tr> <tr> <td>Rotation center compensation: 0</td> <td></td> <td></td> </tr> </tbody> </table>	Wheel Diameter: 0.18 m	Wheel Reduction Ratio: 15	Left Motor Encoder Lines: 10000	Wheel Spacing: 0.72 m	Rotational Reduction Ratio: 100	Right Motor Encoder Lines: 10000	AGV Width: 0.515 m	Lifting Reduction Ratio: 50	Lift Motor Encoder Lines: 10000	Heading angle compensation: 0	Screw Reduction Ratio: 6	Rotary Motor Encoder Lines: 10000	Rotation center compensation: 0		
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Robo. Control Config.	Robo. Info.																									

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

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