UFACTORY LITE 6

Quick Start Guide

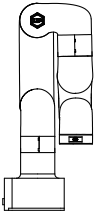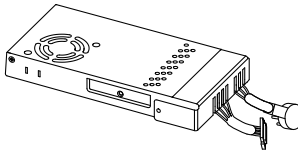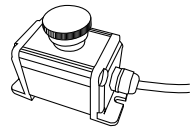UFACTORY

Dear customer,

Thank you for purchasing UFACTORY Lite 6 Robotic Arm! After unboxing, please ensure the contents of the package as checked off are present:
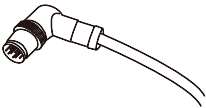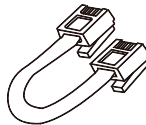
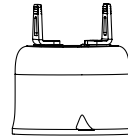UFACTORY Lite 6 Robotic Arm*1

Power Adapter*1

Emergency Stop Switch*1

End Effector Adapter Cable*1

Network Cable*1

Gripper*1
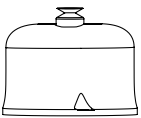
Vacuum Gripper*1
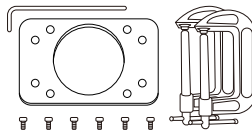
Mounting Tools*1

Lite 6 Quick Start Guide

Hardware connection:

When you have connected all the parts, it should look like Figure 1:
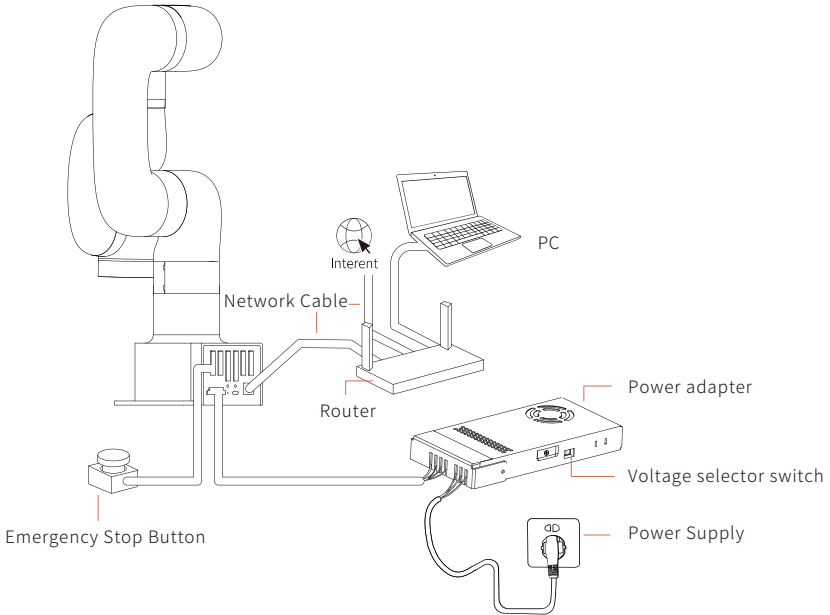
Figure 1

Lite 6 Robotic Arm connection:

- Make sure there is no obstacle in the Lite 6 robotic arm's working space.

- Fix the Lite 6 robotic arm on the base using 4 M5 screws.

- Connect the DC input cable to the integrated control box of Lite 6 robotic arm, The connector is error proof, please do not unplug and plug it violently.Adjust the voltage selector switch according to local voltage, connect the AC power cable to power supply.

- Connect the Emergency Stop Switch and LAN cable to the Lite 6 robotic arm.

- Check the power and motion status indicator, as shown in Figure 3.

Notice： Please make sure the voltage selector switch(as shown in Figure 2) has been adjusted to correct gear according to the local voltage before powering on. Otherwise, the circuit of Lite 6 robotic arm may be damaged.

115V   230V

Figure 2

ROBOT PWR
ROBOT 24V PWR

IO
Motion Status
Network Port
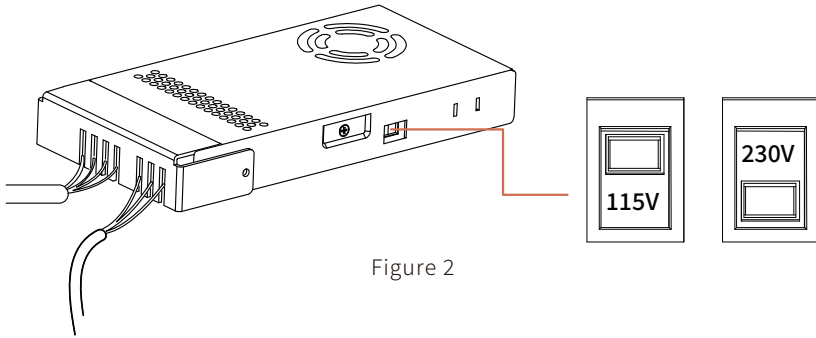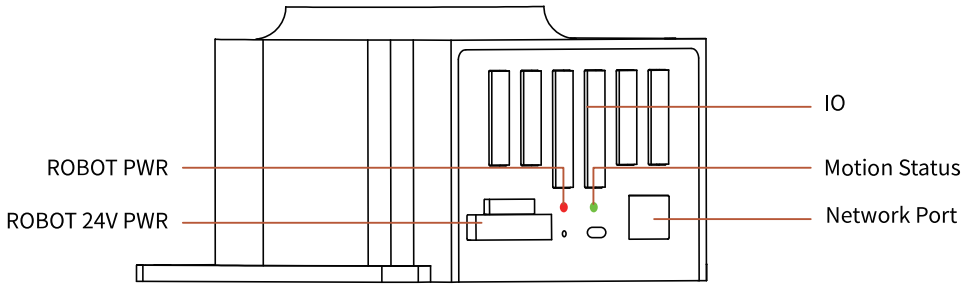
Figure 3

Software connection:

1. Ensure that all the hardware connection steps have been completed;

2.Configure the IP address of the PC

(1) Set the IP address of the PC: Make sure the PC and the integrated Control Box are in the same LAN environment [The network segment of integrated Control Box is 192.168.1.xxx (x is a number between 1 and 255)], which means that the IPV4 network segment of the PC must be between 192.168.1.1 and 192.168.1.255 (the end number of IP address shall be different from that of the Control Box); the factory IP address of the Lite 6 has been marked on the integrated Control Box; The configuration steps on PC are shown in Figure 4.1-4.5;

Status

Network status

Ethernet
Private network

You're connected to the Internet

If you have a limited data plan, you can make this network a metered connection or change other properties.

Change connection properties

Show available networks

Change your network settings

Change adapter options
View network adapters and change connection settings.

Sharing options
For the networks you connect to, decide what you want to sh

Network troubleshooter
Diagnose and fix network problems.
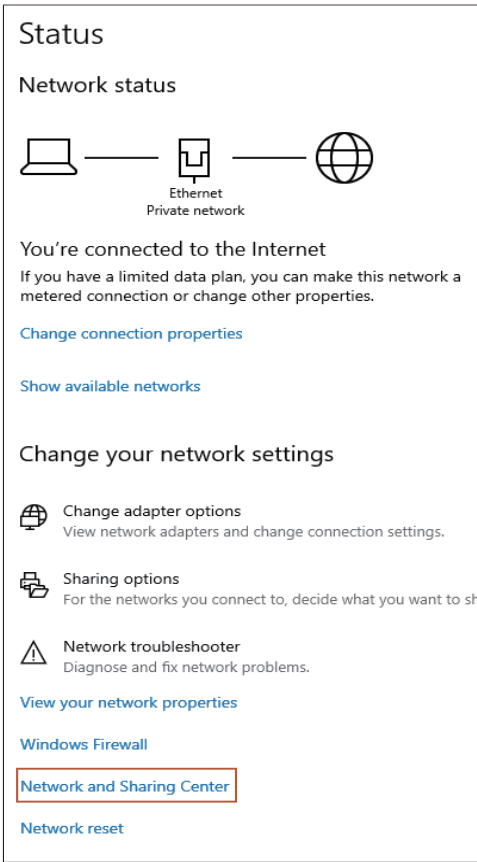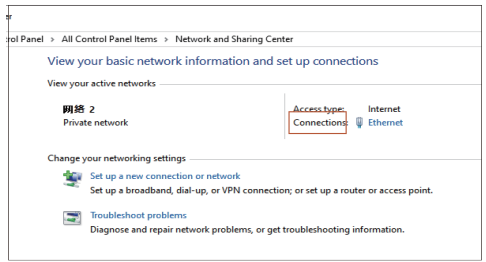
View your network properties

Windows Firewall

Network and Sharing Center

Network reset

Figure 4.1

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ol Panel › All Control Panel Items › Network and Sharing Center

View your basic network information and set up connections

View your active networks

网络 2
Private network

Access type: Internet
Connections: Ethernet

Change your networking settings

Set up a new connection or network
Set up a broadband, dial-up, or VPN connection; or set up a router or access point.

Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.

Figure 4.2

Ethernet Status ✕

General

Connection

IPv4 Connectivity:	Internet
IPv6 Connectivity:	No network access
Media State:	Enabled
Duration:	00:02:28
Speed:	1.0 Gbps

Details...

Activity

Sent —— | —— Received

Bytes: 1,204,512 | 3,009,827

Properties | Disable | Diagnose

Close

Figure 4.3

Ethernet Properties ✕

Networking | Sharing

Connect using:

Realtek PCIe GBE Family Controller

Configure...

This connection uses the following items:

☑ Client for Microsoft Networks
☑ VMware Bridge Protocol
☑ File and Printer Sharing for Microsoft Networks
☑ QoS Packet Scheduler
☑ Internet Protocol Version 4 (TCP/IPv4)
☐ Microsoft Network Adapter Multiplexor Protocol
☑ Microsoft LLDP Protocol Driver

Install... | Uninstall | Properties

Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

OK | Cancel

Figure 4.4

Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
● Use the following IP address:

IP address:	192 . 168 . 1 . 12
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192 . 168 . 1 . 1

○ Obtain DNS server address automatically
● Use the following DNS server addresses:

Preferred DNS server:	192 . 168 . 1 . 1
Alternate DNS server:	. . .

☐ Validate settings upon exit

Advanced...

OK | Cancel
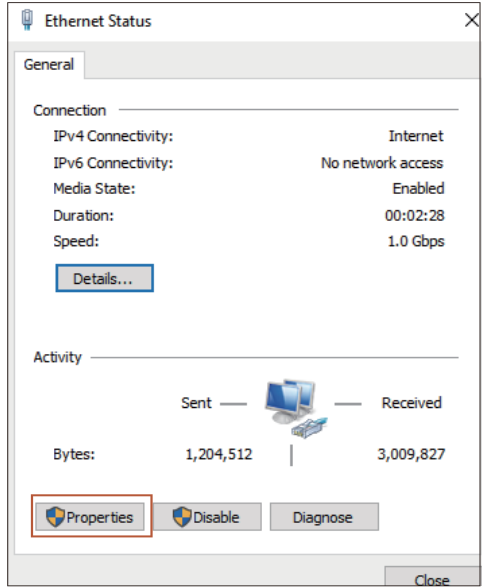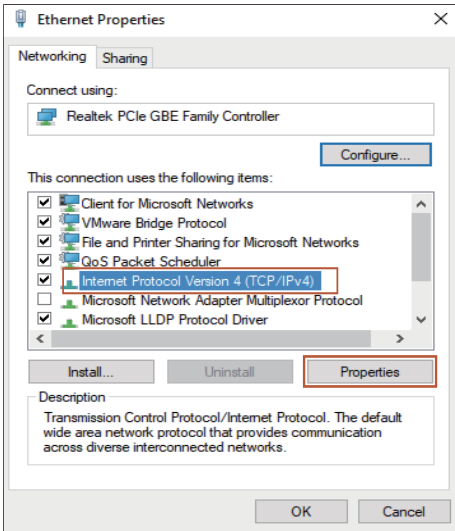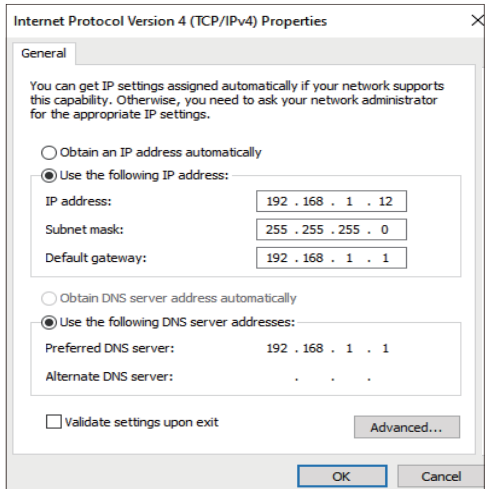
Figure 4.5

(2) Verify the IP address of the PC: Enter cmd in the search box (as shown in Figure 5.1), open a command window, directly ping the IP address of the Robotic Arm entering doc command line: ping 192.168.1.XXX, which can send and receive data packets successfully (as shown in Figure 5.2);
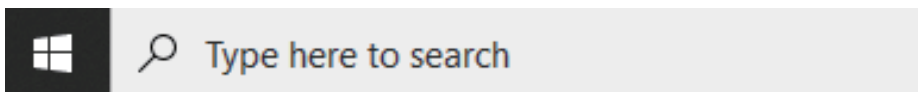

Figure 5.1

Figure 5.2

3. Enter 'IP+:18333' in the browser to access to UFACTORY Studio.

For example, the IP of control box is 192.168.1.185, enter 192.168.1.185:18333 in the Google Chrome browser, as shown in Figure 6:
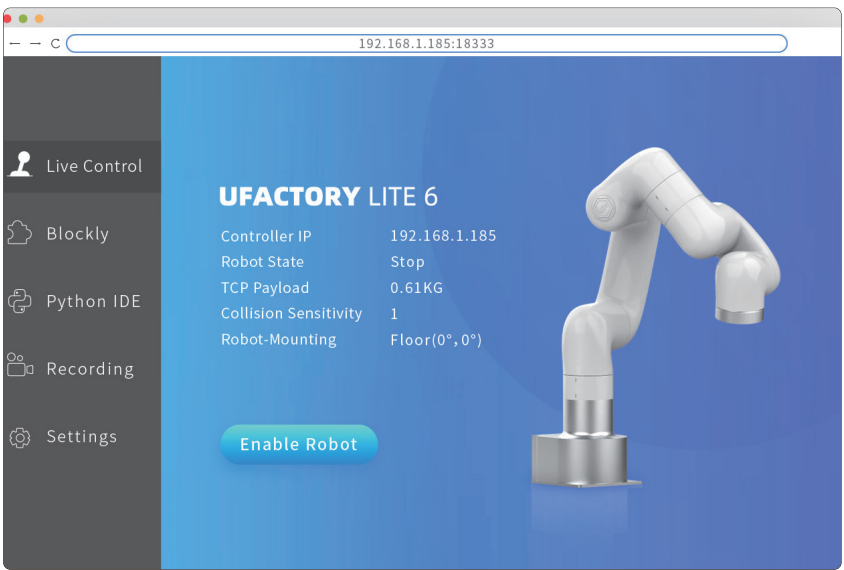
Figure 6

Note: The IP of the control box is attached on the base of Lite 6 robotic arm, as shown in Figure 6.1.
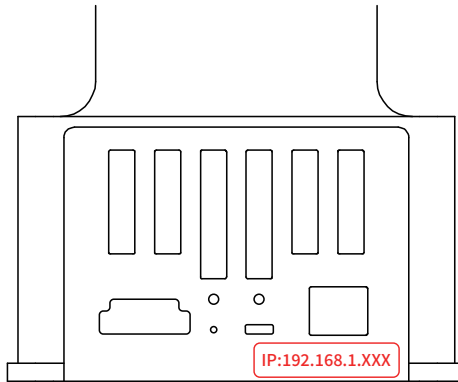

Figure 6.1

At this point, all installation steps have been completed. If you need to modify the network segment of the Control Box to adapt to the LAN segment, please check Appendix 1. If you want to download more information, please see Appendix 2.

Appendix 1：

Through the following steps, you can modify the network segment of the Control Box to fit the current LAN segment.

Assume that the network segment of the customer LAN is: 192.168.2.xxx

(1) Connect the Control Box to the PC directly with a Network Cable, and then modify the IPV4 address of the PC to be the same as the network segment of the Control Box. The factory IP address of the device has been marked on the side of the Control Box. The IP settings on the PC are shown in Figure 4.1 -4.5;

(2) Use UFACTORY Studio to connect to the Control Box, and change the network segment of the Robotic Arm to the LAN segment in the network settings under the setting options of UFACTORY Studio, after clicking save,restart UFACTORY Studio (see Figure 7.1-7.2). Then close UFACTORY Studio and restart it, then remove one end of the Network Cable connected to the PC segment and connect it to the LAN;

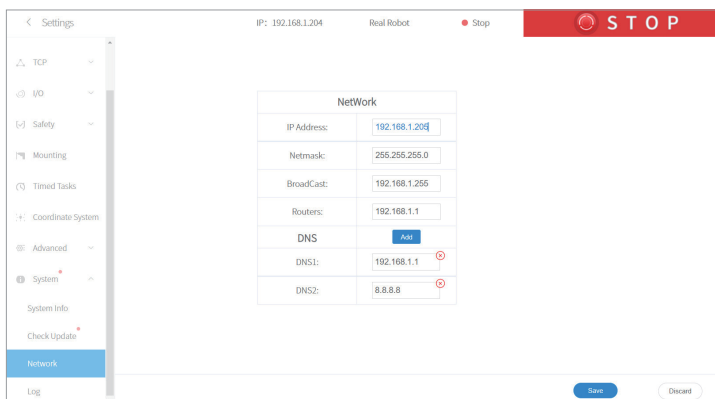(3)Set the IPV4 address of the PC to obtain automatically and access the LAN, as shown in Figure 4.5.
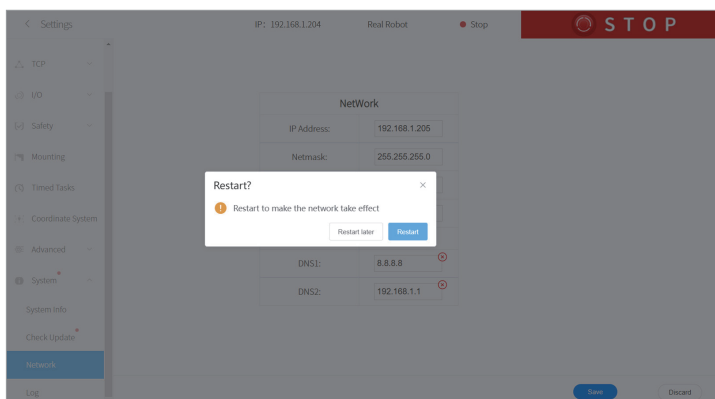

Figure 7.1

Figure 7.2

Appendix 2:
● UFactory Studio manual: https://www.ufactory.cc/ufactory-studio
● Github: https://github.com/xArm-Developer/
● Further information, please email at: support@ufactory.cc; sales@ufactory.cc