3.PC software control

FAQ:

Case-1: Hardware connection failed.

The hardware is not started, please check whether the network is connected.

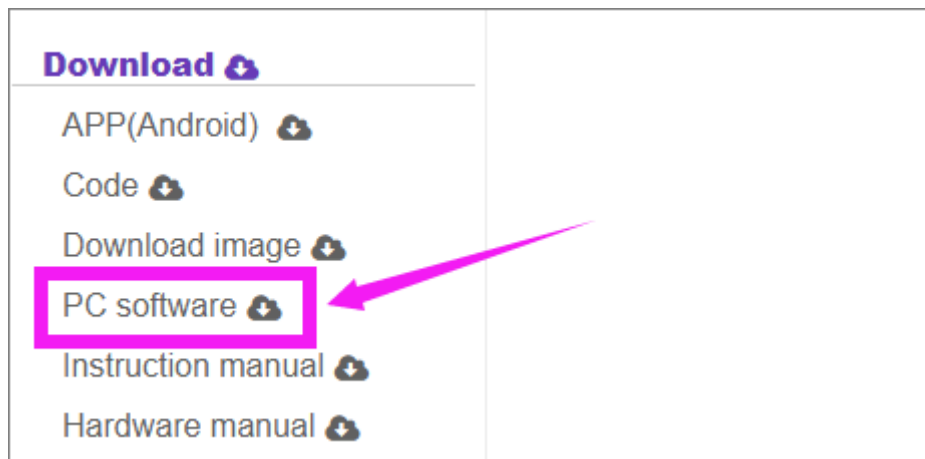**Case-2: Software connection failed.**

wrong IP address or wrong port number, whether the network is in the same LAN, the camera screen is not displayed, check whether it is plugged into the USB port of the robot arm;
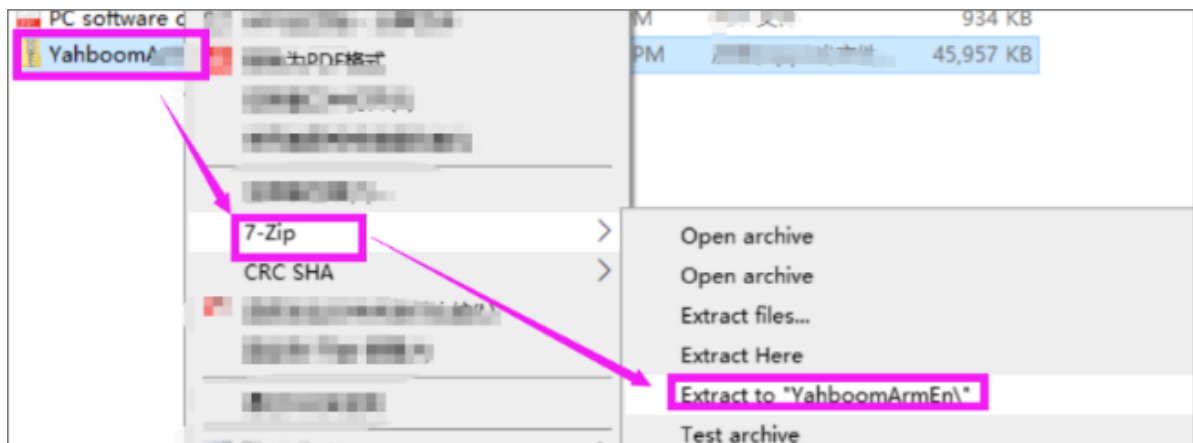
Case-3: System error

Restart the host computer software.

1.Install PC software

1.1 Download PC software from our website.

1.2 Extract ZIP file by 7z software or you can use others software.

1.3 You will get a folder as shown below.

2.Start up DOFBOT and connect PC software

2.1 After turning on the power switch, wait patiently. When the robotic arm buzzes three times, it means that the system has been started.
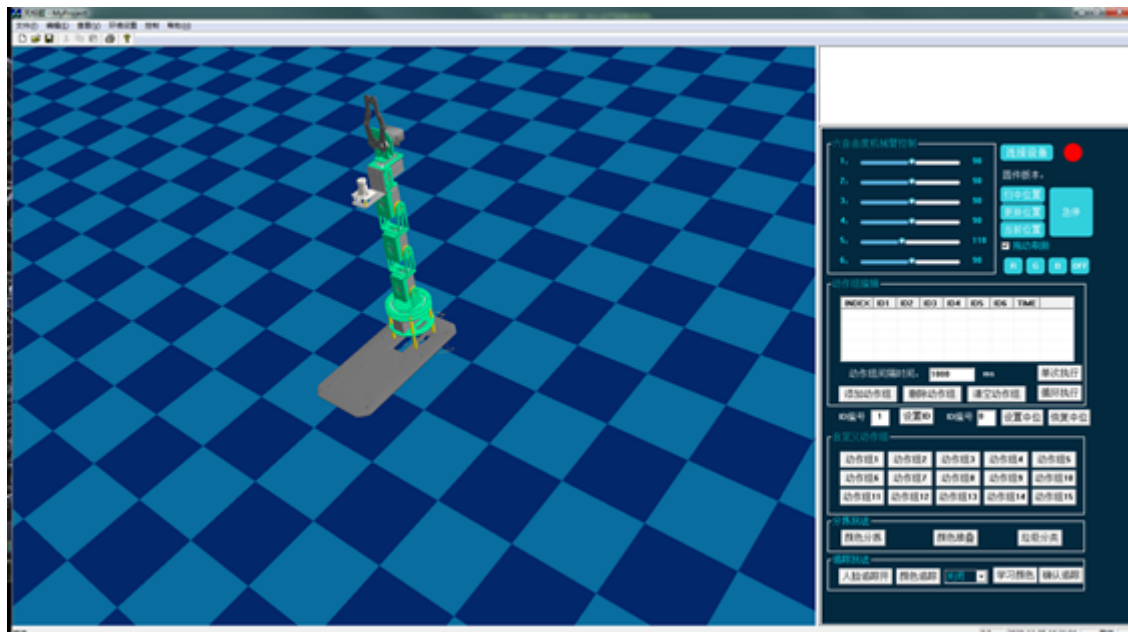
You can check the current IP address of the robotic arm by logging into the virtual machine and entering ifconfig command.

2.2 Ensure your computer and robotic arm are under the same LAN.

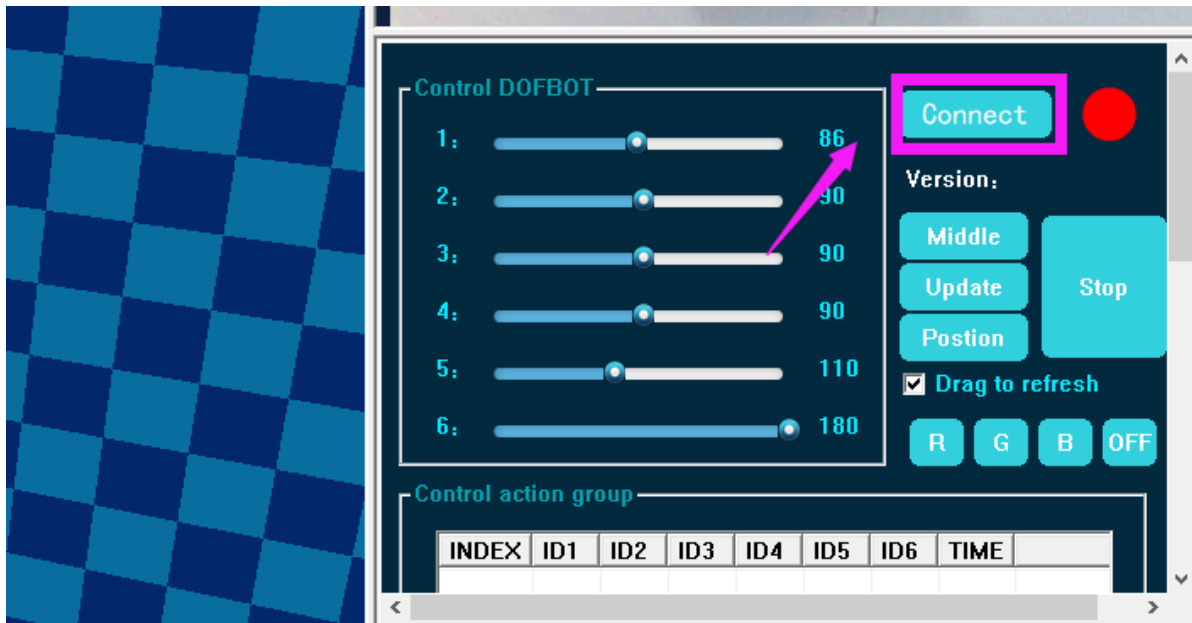2.3 Double-click the exe file to open the software.

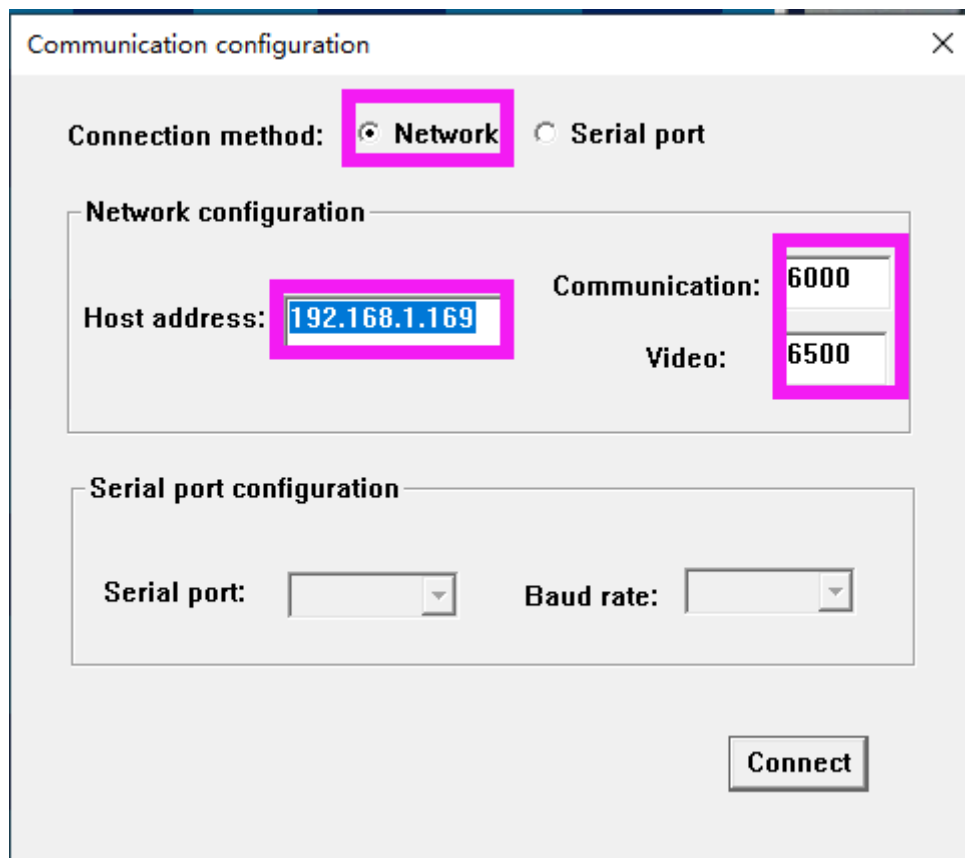2.4 Open the software, you will see following interface.

3.Control DOFBOT by PC software

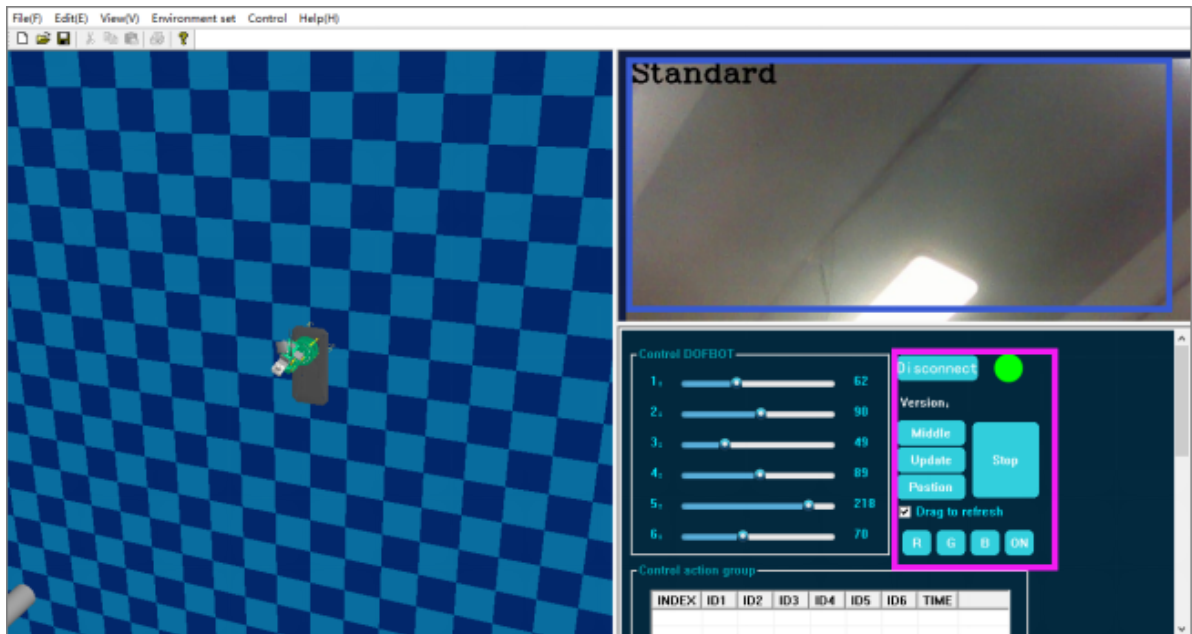3.1 Click [Connect] to connect robotic arm.

3.2 Select the network connection method.

Input the IP address, communication port, and video port of the robotic arm. Then click [Connect].
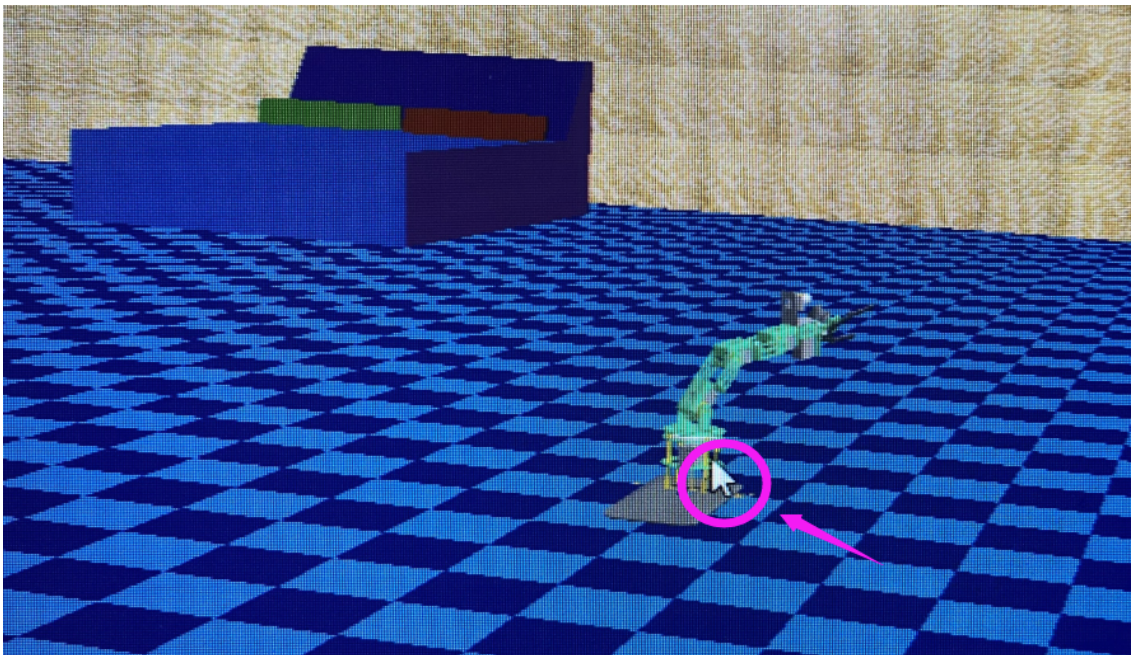

3.3 If the connection is successful, the status indicator on the interface will become green, as shown below. The video screen will also be loaded.
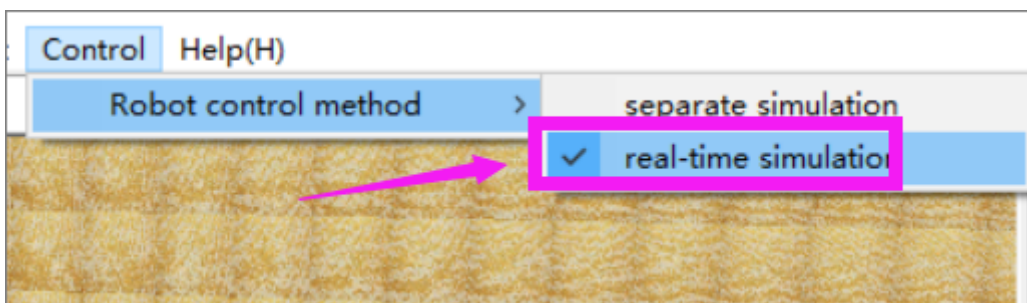
4. PC Function

- Real-time simulation

1. Click the 3D simulation of the robotic arm on the left side on PC software.

2. Choose [Control]--[Robot control method]--[real-time simulation].

3. You can control robotic arm by button on key board. As shown below.

Note: During control, the mouse needs to be kept on the 3D simulation.

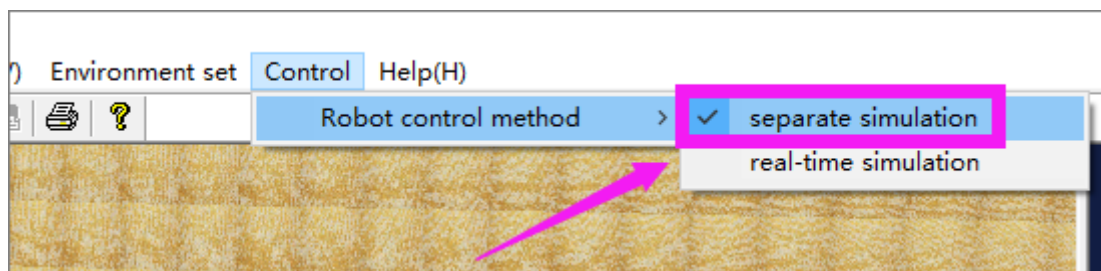Press W,A,S,D key on keyboard at the same time.

Press T,F,G,H key on keyboard at the same time.

Press I,J,K,L key on keyboard at the same time.
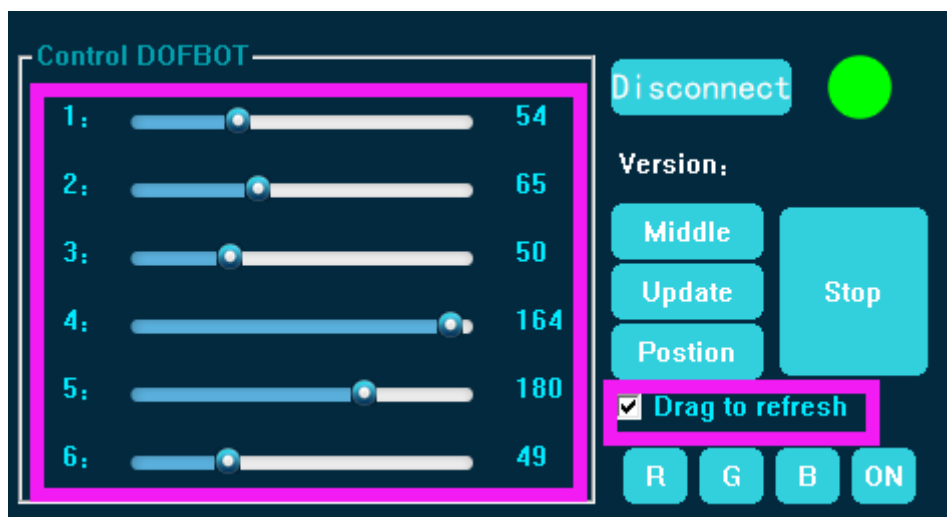
Can control robotic arm.

- Separate simulation

1. Choose [Control]--[Robot control method]--[separate simulation simulation].

2. Control DOFBOT

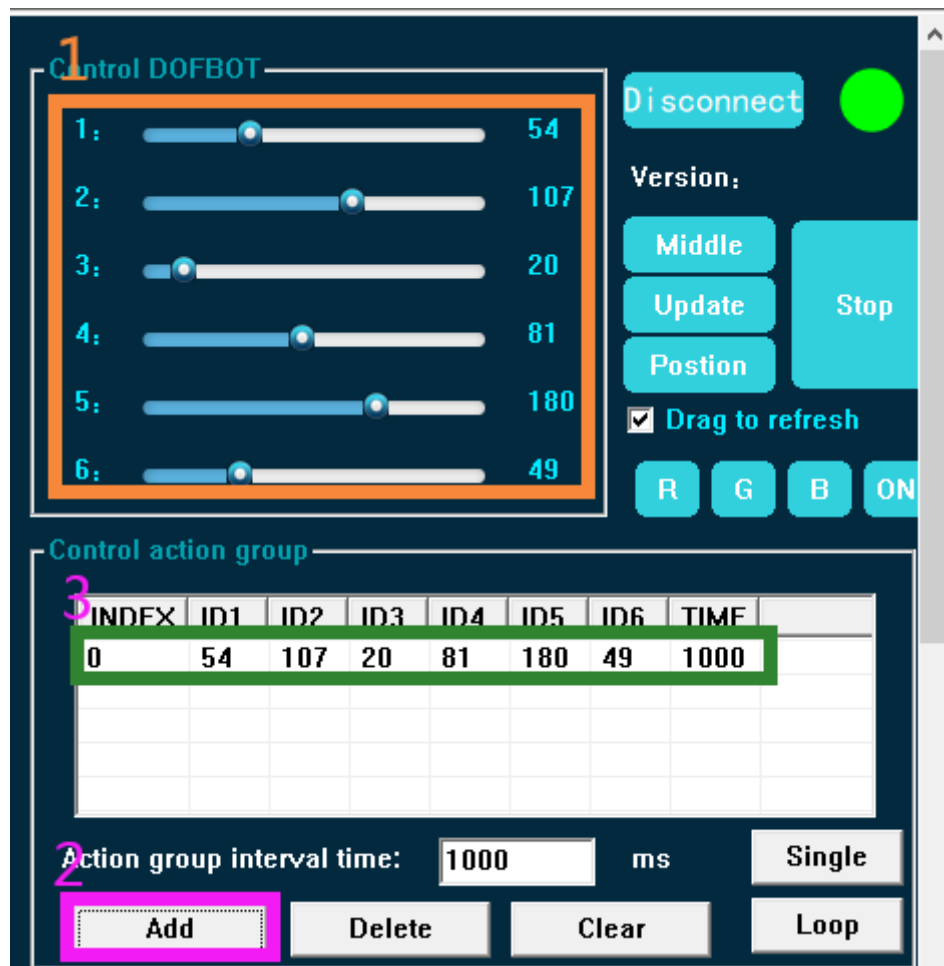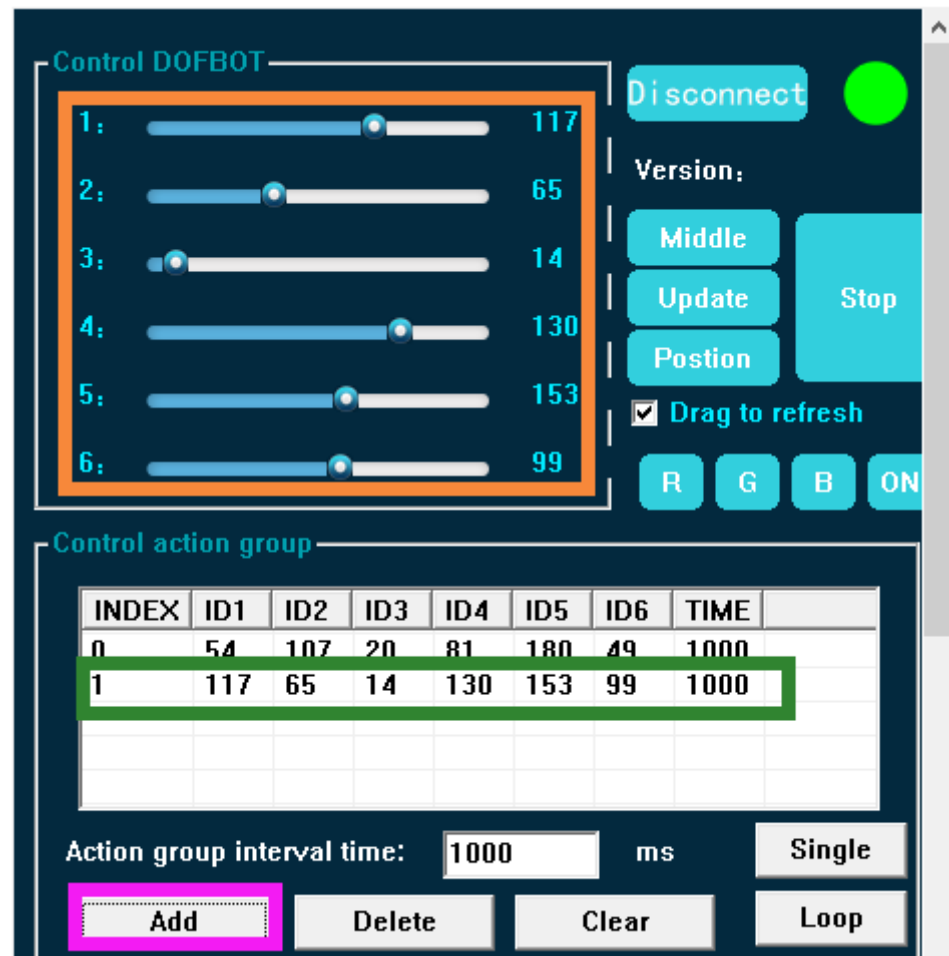You can control 6 servo of robot arm by drag slider.

A: Control cation group

Step:

①Drag slider on Control DOFBOT area.

②Click [Add] on Control action group, which means add a set of actions to robot arm. And you can see a set of action group data on the table. As shown below.

We can add more action groups in the same way.

③Click [Single] or [Loop] to run this action.

④Click Loop off] to stop action is running, and robotic arm will back to center position.

⑤[Delete] and [Clear] be used to delete or clear actions.

B: Custom action group

Choose Action X, robot arm will automatically completed this action, and the robot arm will automatically stop after the action is completed.
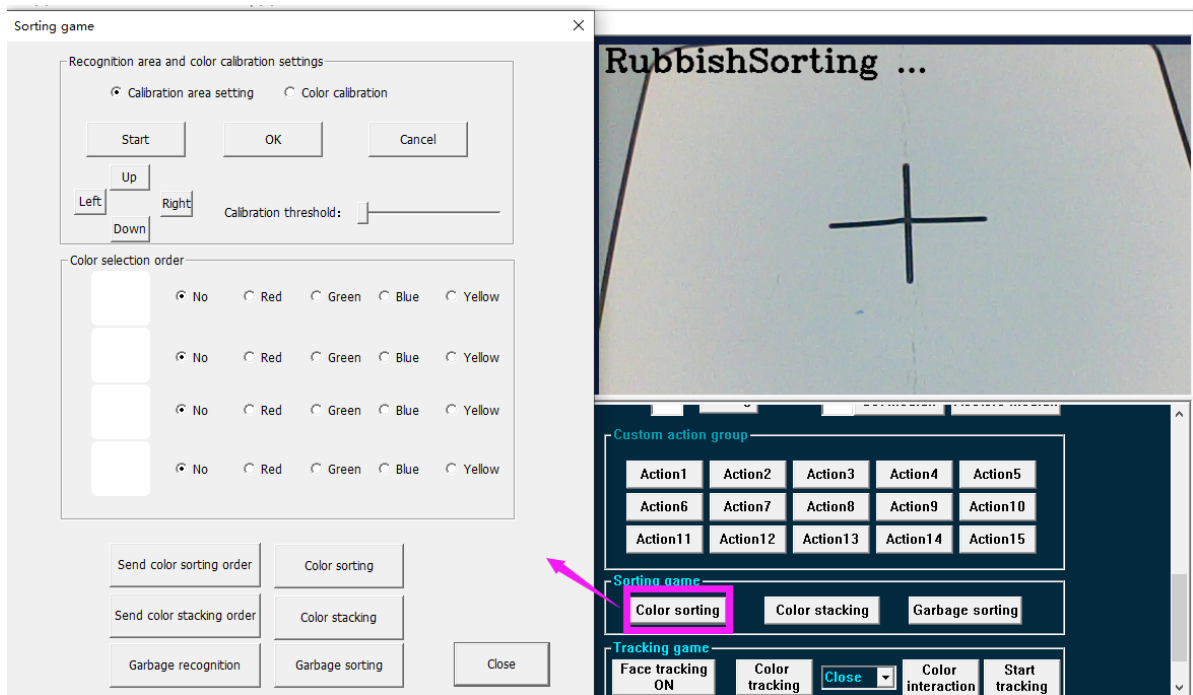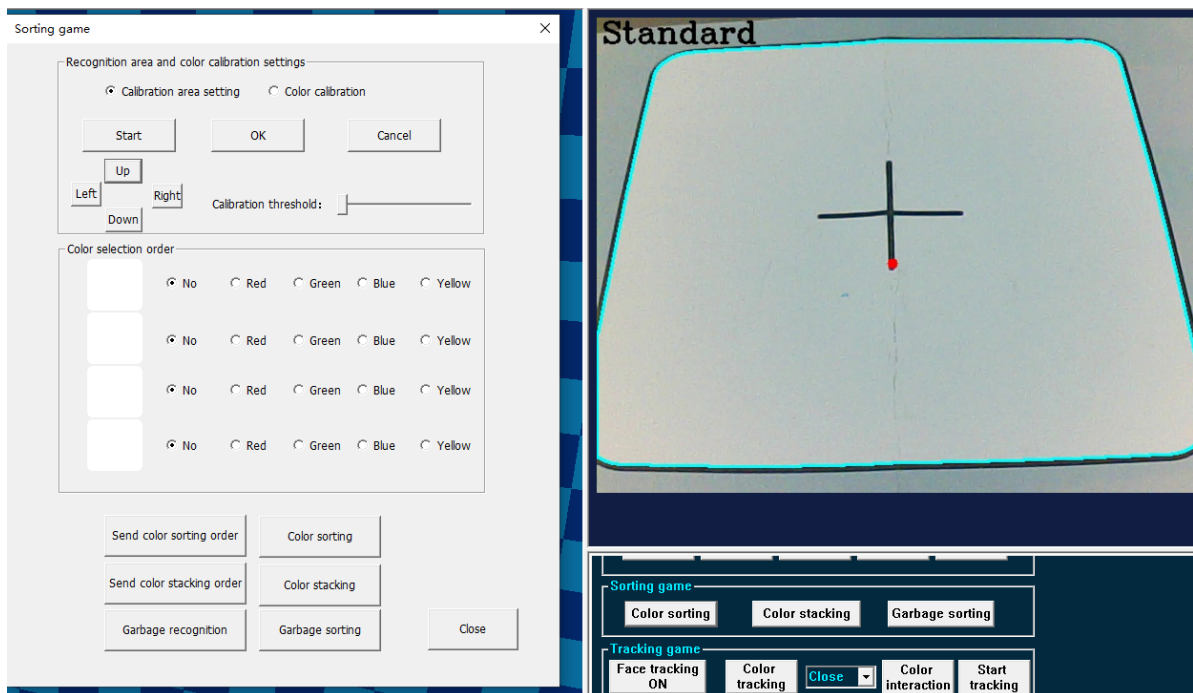

C: Sorting game

①Place map and click a game, for example-Color sorting.

②We need to set the calibration area, enter the calibration area. Click to up, down, left and right button to ensure camera can fully see the identification frame.

We can slide the calibration threshold setting so that the cyan box can circle the identification frame in the map, and click *[OK]* to complete the calibration.

③Select the color block, then send the sorting or stacking order, wait for the camera to recognize it, and then click sorting or stacking.
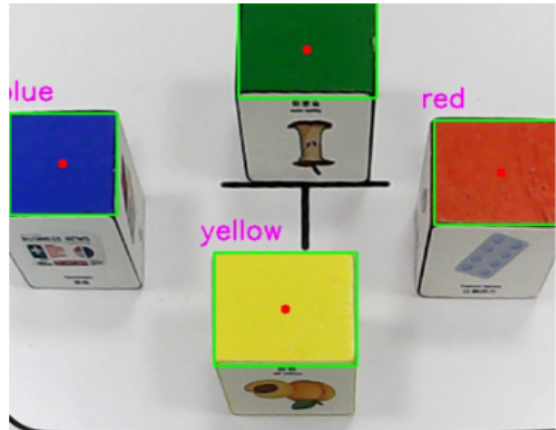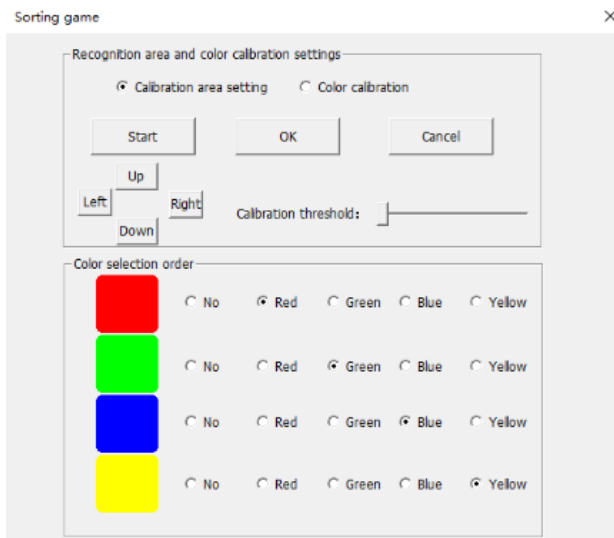
D: Tracking game

Face tracking: Click [Face tracking ON], when the robotic arm detects the face in the video screen, the robotic arm will move slowly with the face.

Color tracking: Select the color to be tracked. Then, click [Color tracking], place the corresponding color block in front of the robotic arm camera. When we move the color block, the robotic arm will move with the color block.

Color interaction: Click to [Color interaction], place the block in the green recognition box on the screen, wait for the value in the green box to stabilize. Then, click [Start tracking], the robotic arm will move with the color block.