
No. : _____

Classification: _____

Identification: _____

Version: _____

Pod control software Instructions manual

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1 Power on

Open the control software and connect the video source and control interface of the pod to the computer as required.

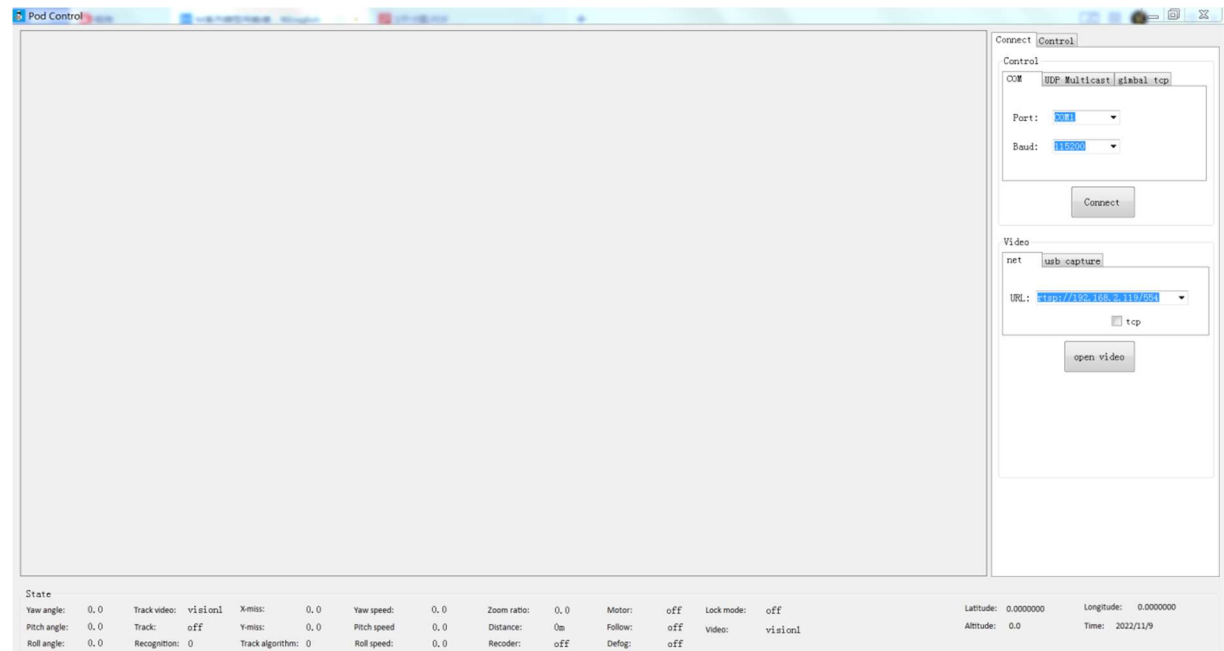


Figure 1 Open interface

2 Control interface connection

The software can use the serial port or network to control the pod.

If the pod is controlled through the serial port, as shown in Figure 2-1, select the "COM" tab, click the port drop-down list, select the COM number corresponding to the pod, and click Connect; If the pod is controlled through the network, as shown in Figure 2-2, select the "gimbal tcp" tab, enter the pod IP, and click Connect; After the connection is successful, the lower left corner will update the pod status in real time.

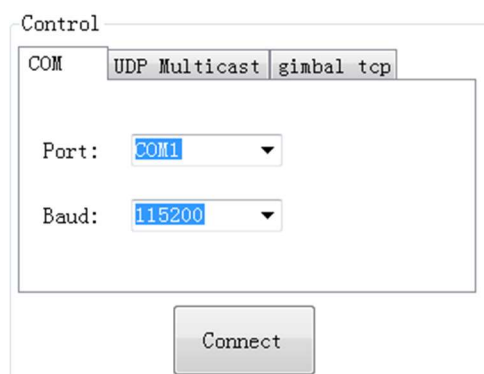


Figure 2-1 Serial Port

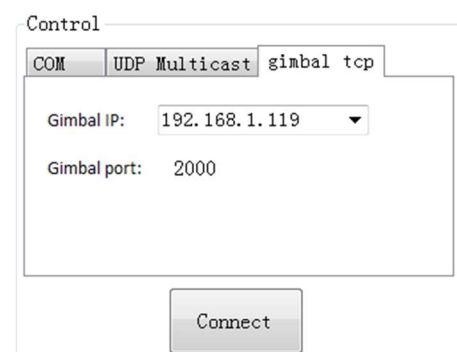


Figure 2-2 Network

3 Open Video

The software supports two ways to obtain videos: USB capture card or network。

- 1) Wiring according to the input mode (completed before power on);
- 2) As shown in Figure 3-1 and Figure 3-2, select the corresponding tab according to the input method;
- 3) Input the video source (USB capture) or video stream address (network) to access the video;
- 4) Click the "Open Video" button (wait a few seconds, if the connection is successful, the video window will display the real-time image of pod)。

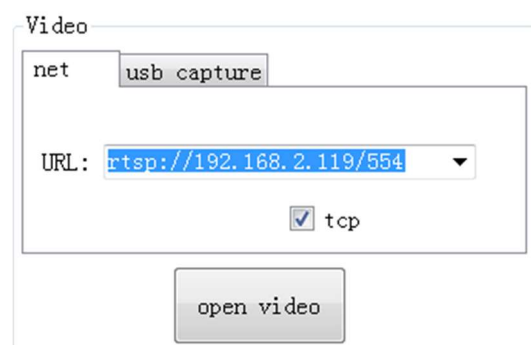


Figure 3-1 Network

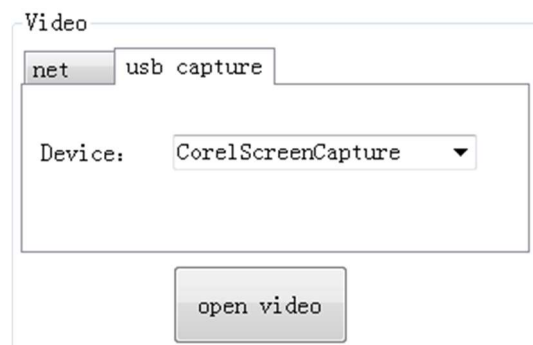


Figure 3-2 USB capture

4 Common control

4.1 Pod rotation control

SN	button/input box	function
1	Up/Down/Left/Right/Stop	Control the pod to rotate in the specified direction
2	Home position	Turn to pod home position
3	Motor on/off	Switch the motor on or off
4	Follow Yaw	Follow yaw or not
5	Motor Lock	Locked by motor at (0 , - 10),other commands will not work in this mode
6	Turn to	Turn to specified angle

7	Restrain drift	Restrain yaw drift,range: ± 20000
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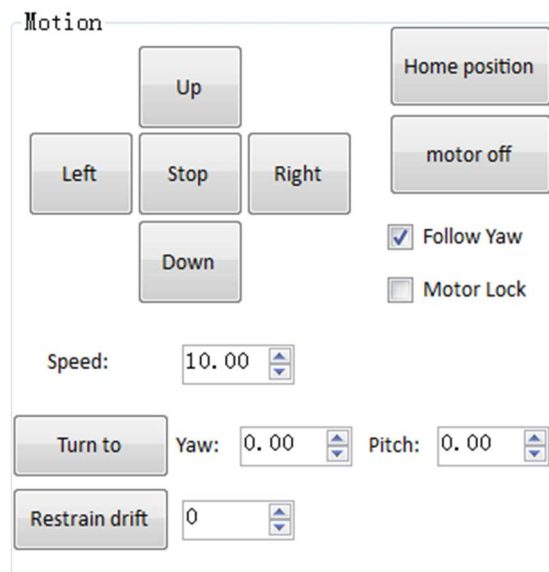


Figure4 Pod rotation control

4.2 Target tracking

SN	button/input box	function
1	Click in the video	Track the specified target
2	Right click in the video	Exit Tracking
3	Track algorithm	Select different algorithms to track the target
4	Recognition	Identify people and vehicles
5	Semi-autotrack	Only supported by MD360Pro and MS10pro.It is suitable for tracking people and vehicles, and will be modified according to the recognition algorithm during the tracking process
6	Traditional tracking	Traditional tracking algorithm can not identify targets

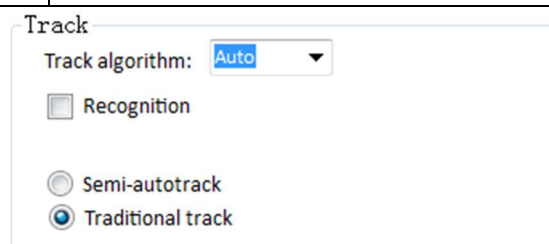


Figure5 Target Tracking

4.3 Image display

SN	button/input box	function
1	Video switching	You can choose to switch between different image sensors
2	PIP Mode	The picture in picture combination mode can be selected when there are multiple image sensors
3	Infrared color	Select the color mode of the infrared image
4	Zoom+/-	Press and hold the button during optical magnification to realize continuous magnification, and release the button to stop magnification; When there is no optical zoom, click once to zoom in or out
5	Zoom Direct	Directly specify zoom magnification when optical zoom is available
6	Start recording	After clicking Start Recording, record on the SD card of the pod. Before powering off, click Stop Recording, or the video file will be damaged
7	OSD	Turn on or off OSD display
8	ICR mode	When there's a lack of light,turn on ICR mode (supported by some pods)
9	Defog	Open the Defog mode when there is fog

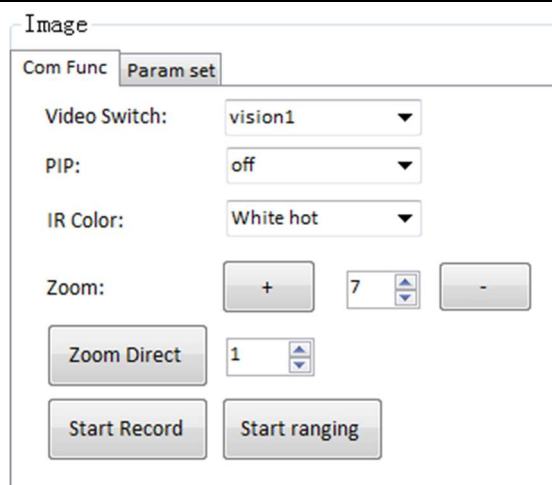


Figure 6-1 common functions

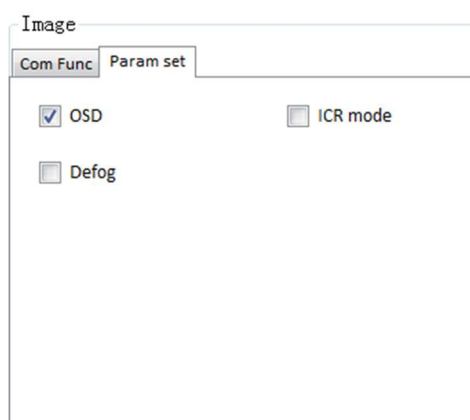


Figure 6-2 parameter setting

4.4 Laser ranging

As shown in Figure 6-1, click the "Start ranging" button to start the laser ranging function, and the measured values can be viewed in the parameter display area, as shown in Figure 7.

State									
Yaw angle:	0.0	Track video:	vision1	X-miss:	0.0	Yaw speed:	0.0	Zoom ratio:	0.0
Pitch angle:	0.0	Track:	off	Y-miss:	0.0	Pitch speed:	0.0	Distance:	0m
Roll angle:	0.0	Recognition:	0	Track algorithm:	0	Roll speed:	0.0	Recorder:	off
								Motor:	off
								Follow:	off
								Defog:	off
								Lock mode:	off
								Video:	vision1

Figure 7 Laser ranging parameter display area

5 Common problems

5.1 Serial port number search

Right click the "Computer" icon, select "Properties", click Device Manager, and an interface as shown in Figure 8 will appear. Generally, the selected serial port number is the serial port number (or port number) refreshed after the connection line is inserted. Double click "Port (COM and LPT)" to refresh the USB port as the selected port.

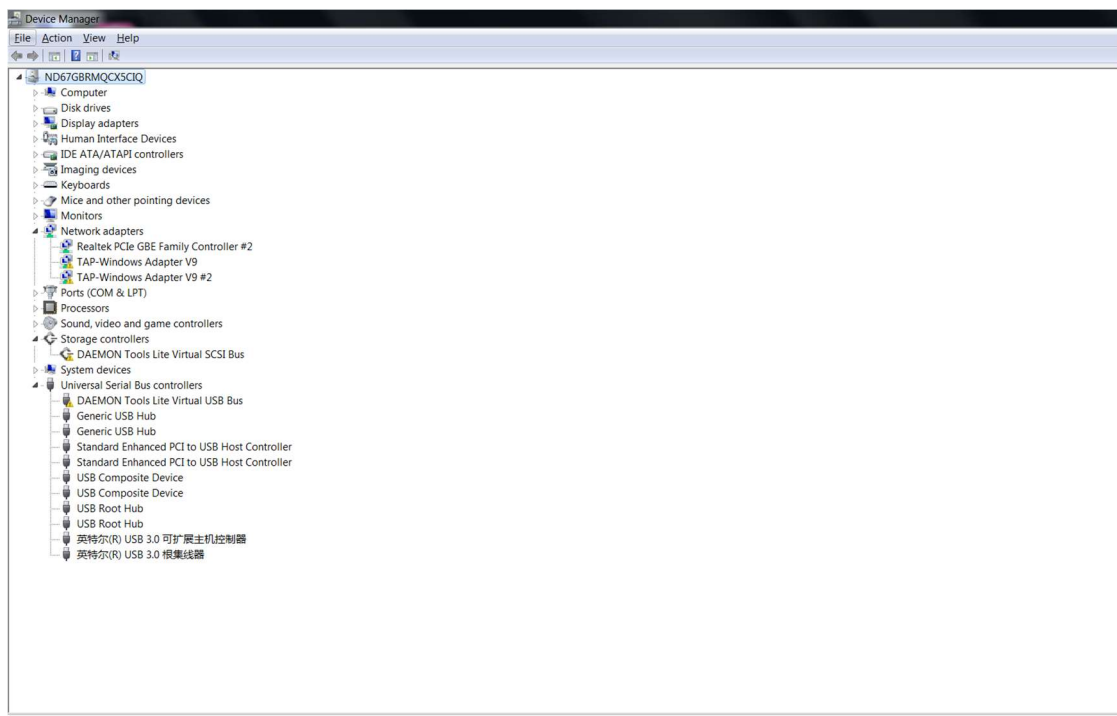


Figure 8 Device Manager

5.2 Network video does not plot

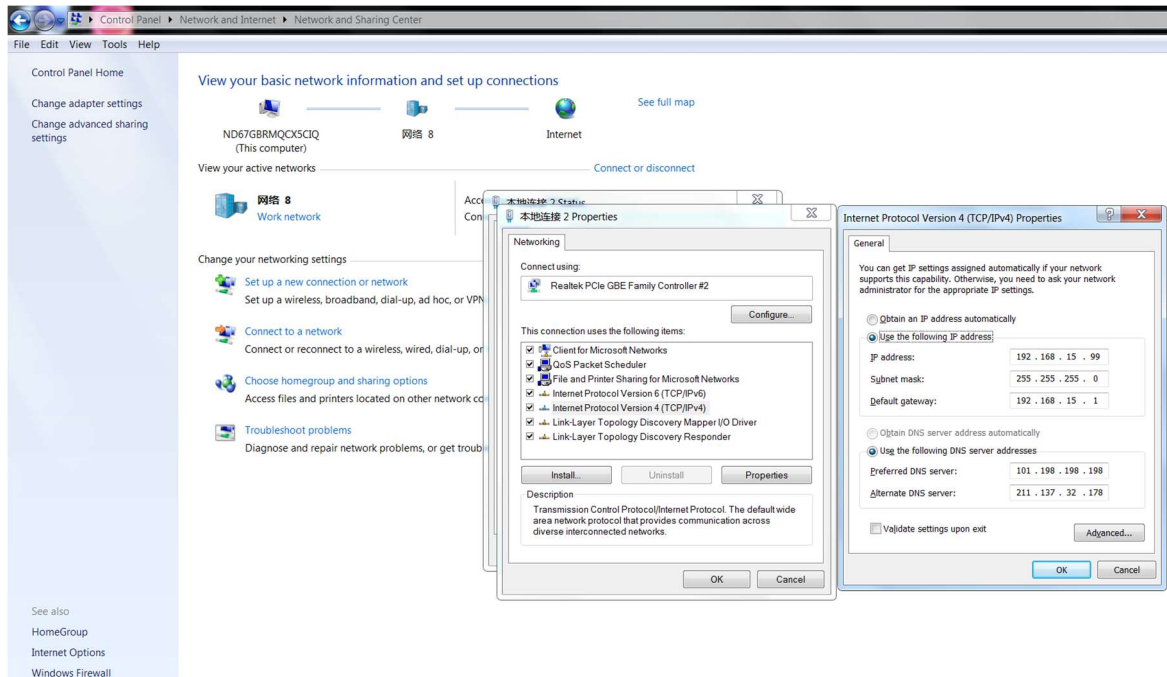


Figure 9 IP Address Modification

- 1) Open "Control Panel" → "Network and Internet" → "Network and Sharing Center" on the computer side;
- 2) Click "Local Connection" icon → "Properties", double-click "Internet Protocol Version 4 (TCP/IPv4)";
- 3) Ensure that the computer IP address and video stream address are in the same network segment. For example, if the video stream address is `rstp://192.168.2.119/554`, the computer terminal address can be set as 192.168.2.56;
- 4) Close the firewall;
- 5) Click the "Open Video" button of the upper computer, and the imaging video will be displayed on the right side of the upper computer.

6 Precautions during use and maintenance

- 1) The daily maintenance of operators and users is limited to the replacement or inspection of cables, daily cleaning and maintenance and functional inspection to ensure that the instrument is in good technical condition;
- 2) Do not open the enclosure without authorization. There are no parts in the machine that can be repaired by the user. In case of system failure, the manufacturer's

technology shall locate the failure and then handle it;

3) If the product is stored for a long time or does not work, it should be stored in a cool and dry environment;

4) The user interface connector shall be inserted after alignment. It is forbidden to pull the cable directly when plugging the plug cable;

5) When the product leaves the factory, all parameters have been debugged. Unless otherwise specified, it is recommended to use the recommended configuration parameters;

6) If it is used in aircraft, the overall performance is affected by the weight of the aircraft, power system, flight control system and user settings, and the user needs to have considerable professional ability. It must be debugged to the performance recognized by the user before it is used in the field;

7) In any state, the thermal imager lens shall not be directly looked at the sun;

8) The SD card shall be disassembled when the system is powered off;

9) Ensure that the lens in front of the lens is clean and tidy;

10) Four seconds before the pod is powered on is the time for automatic calibration of the gyroscope. During this time, please try to ensure that the pod is stable and free of vibration, otherwise the gyroscope data from the last startup will be used. If the pod drifts, restart the pod or send the command to calibrate the gyroscope to the pod;

11) The control software needs to run on a 64 bit system computer.