IQVideo

Lecture Capture System

LCS710 PRO

——User Manual——

Attention

This manual introduces functions, installations, and operations for the device. Please read it carefully before installation and use.

1. To prevent damage to this product or any product connected to it, use this device within the specified range.
Do not expose the product to rain or moisture.
Do not open the case in case of the risk of electric shock. Installation and maintenance should only be carried out by qualified electricians.
Do not use the product beyond the specified temperature, humidity, or power supply specifications.

2.Electrical safety. Installation and use of this product must strictly comply with local electrical safety standards.

3.Avoid damage to the product caused by heave pressure, strong vibration, or Immersion during transportation, storage, and installation.

4. Install with Caution
The housing of this product is made of organic materials. Do not expose it to any liquid, gas, or solids which may corrode the housing.
Do not power on before completing the installation.
Do not disassemble the product without permission. This product contains no parts that can be maintained by users themselves. Any damage caused by the user without permission is not covered by warranty.

Contents

Chapter 1 System Components

Video Station*1

Auto-tracking Camera (Teacher)*1

Auto-tracking Camera (Student)*1

Ceiling MIC*2

Sound Mixer*1

Chapter 2 Installation Preparation

Before setting, prepare your computer (with tracking and debugging software installed), video station, tracking camera, and ceiling microphone.

There are two tracking cameras: the teacher camera and the student camera. Default IP address of teacher camera: 192.167.32.65, default IP address of student camera: 192.167.32.66. The installation height should range from 2.2 m to 2.5 m.

Connect all devices and network cables, ensure that all devices are on the same LAN, and prepare the Settings.

【Installation Diagram】

Scene1: 2 microphones for teacher. (focus on teachers' voice).

Student using handheld microphone.


```
——————  Audio Cable
——————  LAN Cable
```
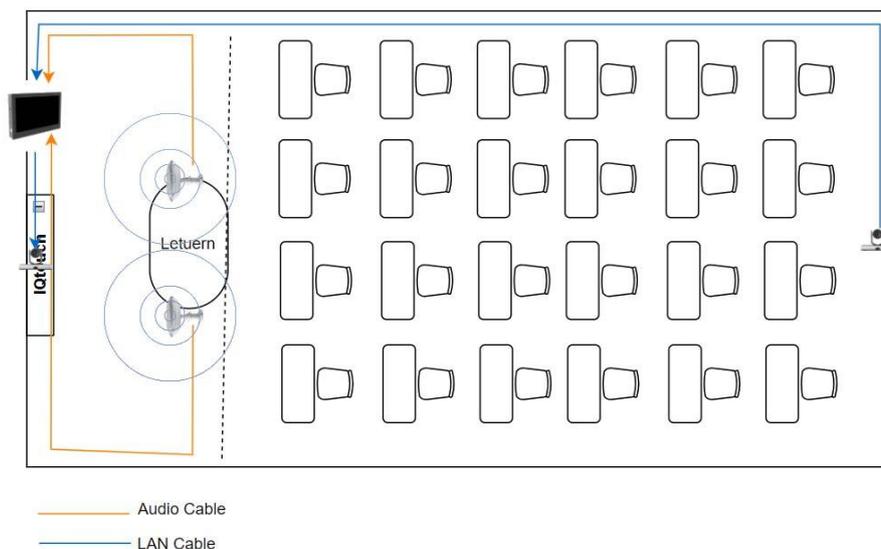
1. **Distance:**

   Microphone best pick up range is 5 meters within the cardioid polar shape as picture shows belong: (Omnidirectional microphone have better performance when **head of mic towards the speaker**).

2. **Height:**

   If you hang mics in the ceiling, the **height suggests as close to the speaker** as possible

   (as low as possible without impact camera vision).

   If you install in the lectern, microphone install **as close to the mouth of the**

speaker as possible. Both mic not higher than 2.5 meters.

3. **Angle:**

    Measure the teachers' major movement area, **adjust angle of microphone head towards the voice source.** Microphone pick up range should cover the major path of teacher's movement.

4. **Position:**

    Both mics installed in the middle of the lectern area.(teachers' movement area).

【**Installation Diagram**】

Scene2: 1 microphone for teacher, 1 microphone for student. (Both teacher and student voice would be picked).
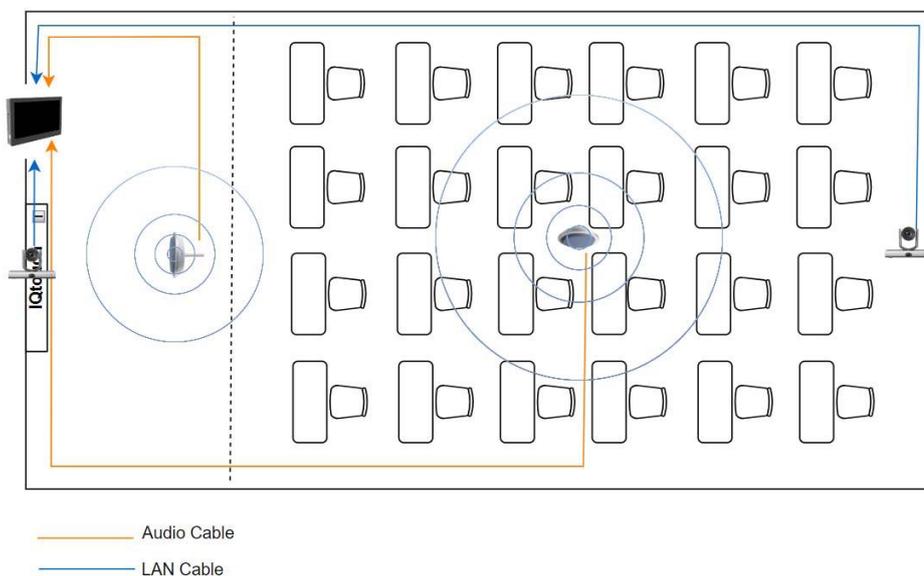
Attention:

(If only use one mic for student voice pick up, better use under classroom size within 100 square meters.)

1. **Height:** Both mic not higher than 2.5 meters.

2. **Angle:** Towards the ground.

3. **Distance:** best within 5 meters pick up range.

4. **Position:** In the middle of the students.

Chapter 3 Device Connection

Pre-setting Steps:

1. Add one Ethernet network IP to PC:

   IP: 192.167.32.100

   Subnet: 255.255.255.0

2. Connect PC to the POE3 port of the station.

Connection Wire Requirements:

1. Network cable: Different deployment environments require different types of network cables. The more complex the environment, the better the quality of the network cable used. Theoretically Cat5 is enough.

2. Audio cable: 3.5mm, double circles, three sections

Chapter 4 Auto-Tracking Setting

CameraCMS-V1.
0.27.97-2023.030

Software：CameraCMS

4.1 Camera connection

1. When we open the tool, we see the following interface. At this time, we need to add the camera. Click Start search
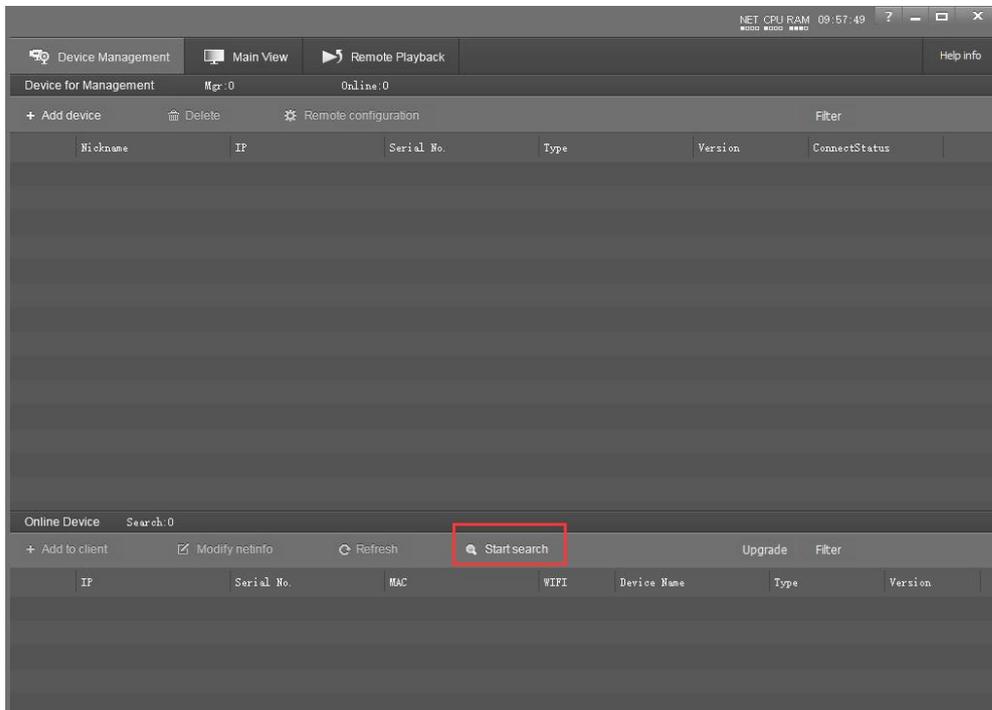
2. And then we can see the camera information appearing here.
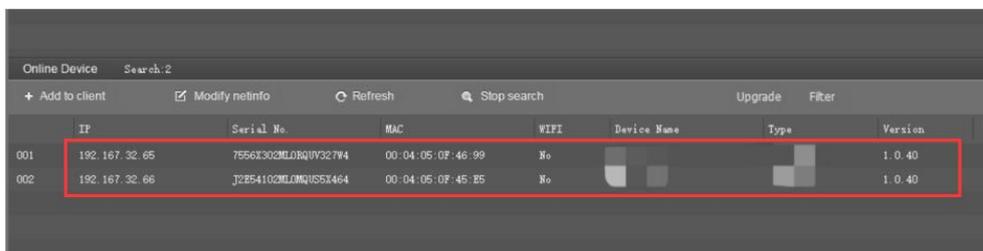
3. Select the camera and add it to the Camera client list so we can proceed.
Select camera-> Add to client->Add
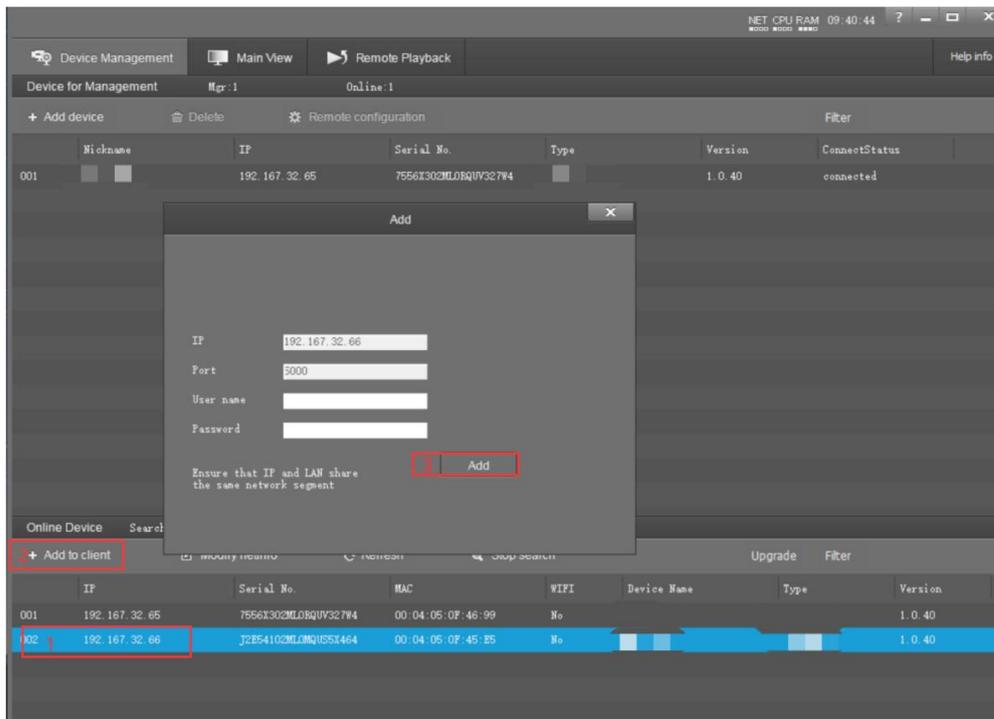
4. Add Main View. First, go to the Main View page to select the corresponding camera, and then right-click the mouse and the selection of panoramic and close-up images will appear：
Main View -> Camera(Right mouse click) ->close-up & panorama
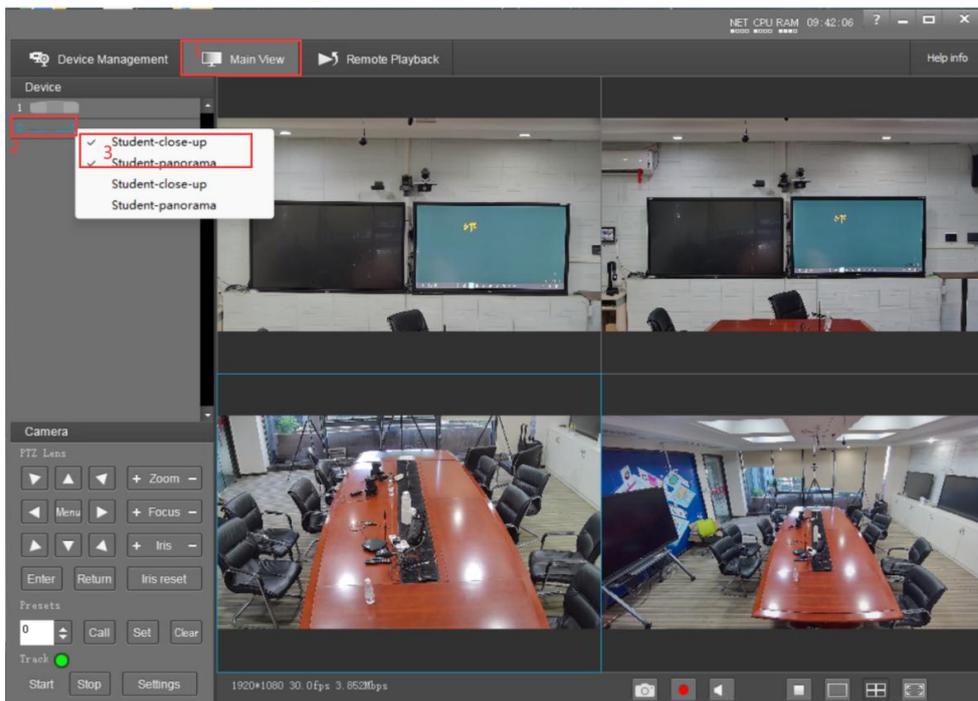
4.2 Teacher camera auto-tracking setting

Click Stop Tracking before you start tracking Settings.

1. Stop ->Presets 1/0 -> Settings　(1 is a close-up view and 0 is the target loss back view)
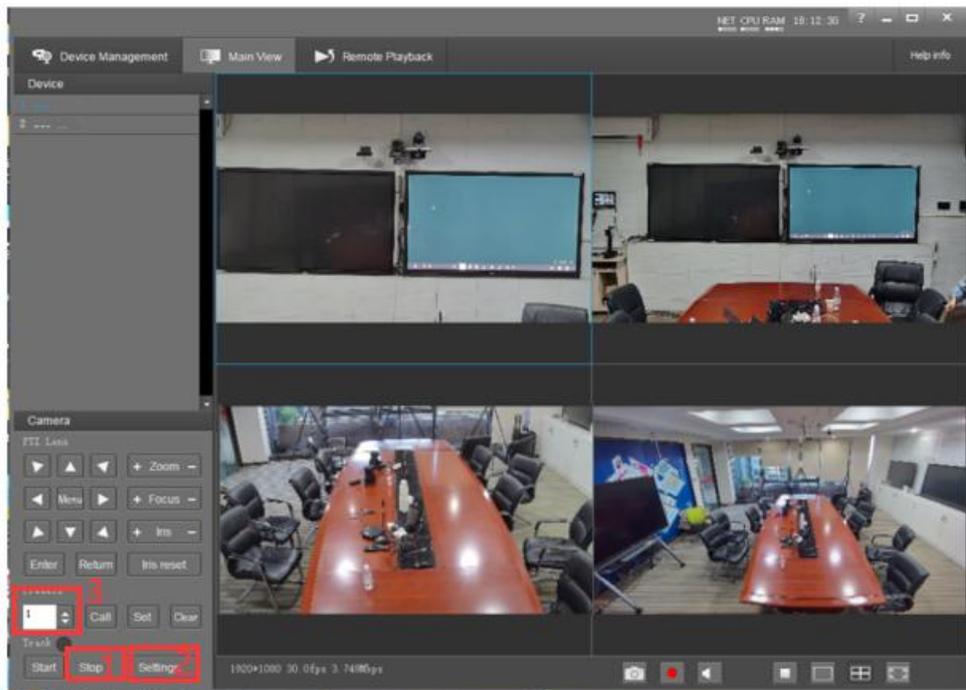
Check the target lost settings: set as No. 0 preset

Settings-Basic2-Target lost action.
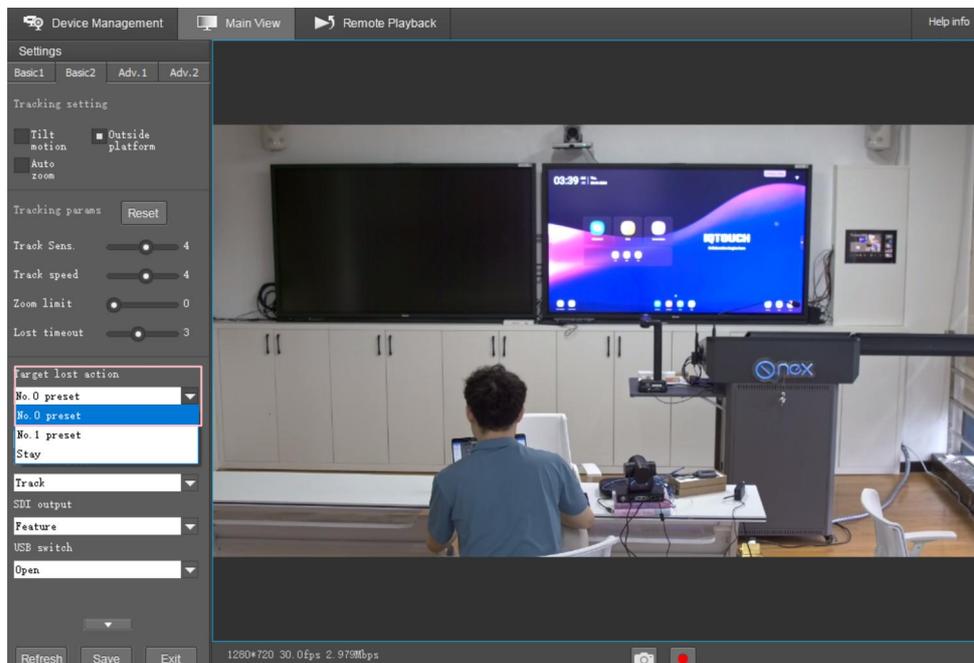
2. Lecturer area setting

The green rectangles are the lecturers' areas, where the camera automatically tracks teachers as they walk around freely.

Lecturer -> Draw the selection-> Save
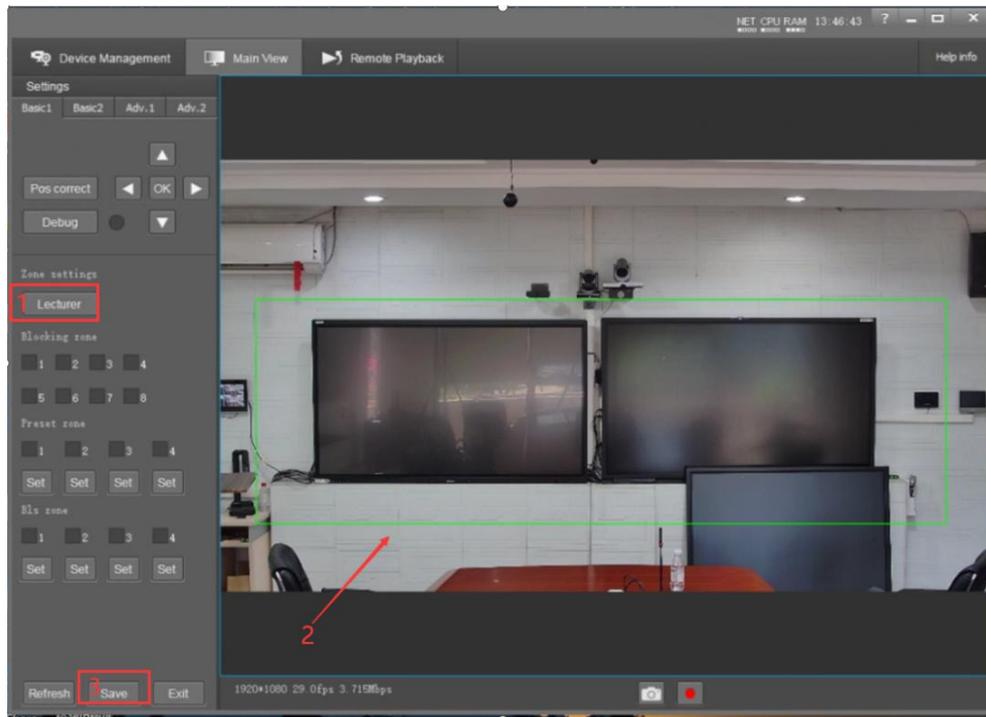
3. Blocking zone

The red rectangle function is to avoid unproper tracking. For example, the students in the first row , which may affect the tracking effect of the lecturer area.

If screen show more faces, also block the screens. (this would not impact teacher area tracking)

Blocking zone -> Draw the selection -> Save
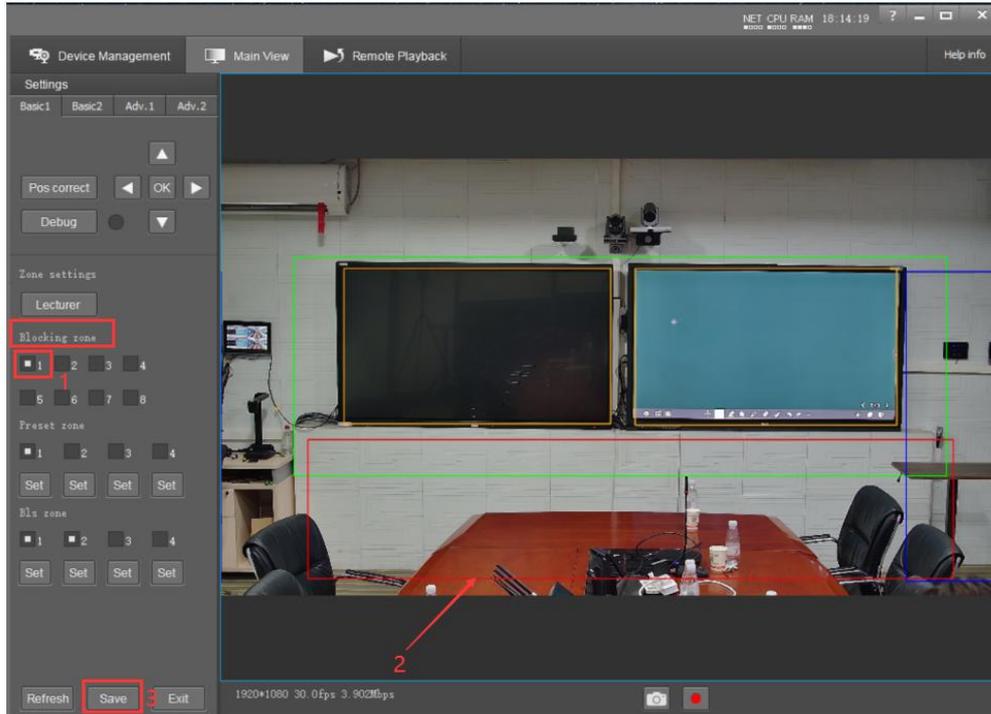
4. Preset zone

The blue rectangle is the table position, and when the teacher is lecturing at the desk position, shaking head or hands under this area would not change the preset view.

Preset zone -> Draw the selection -> Save
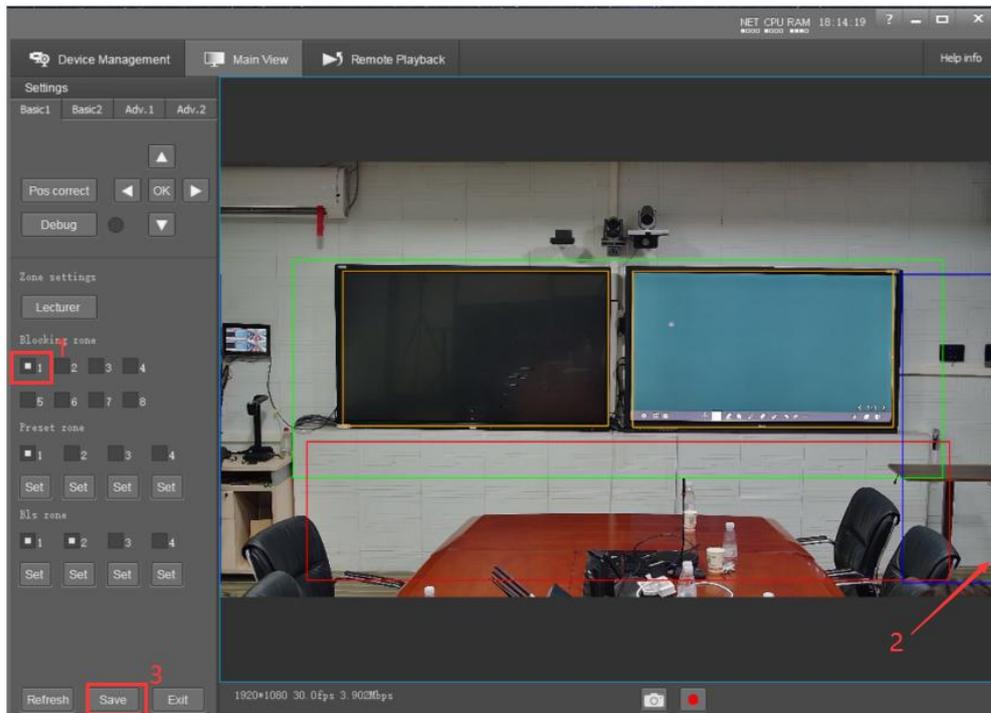
Set the tracking screen

Set-> Adjust the direction and size -> Set -> Save
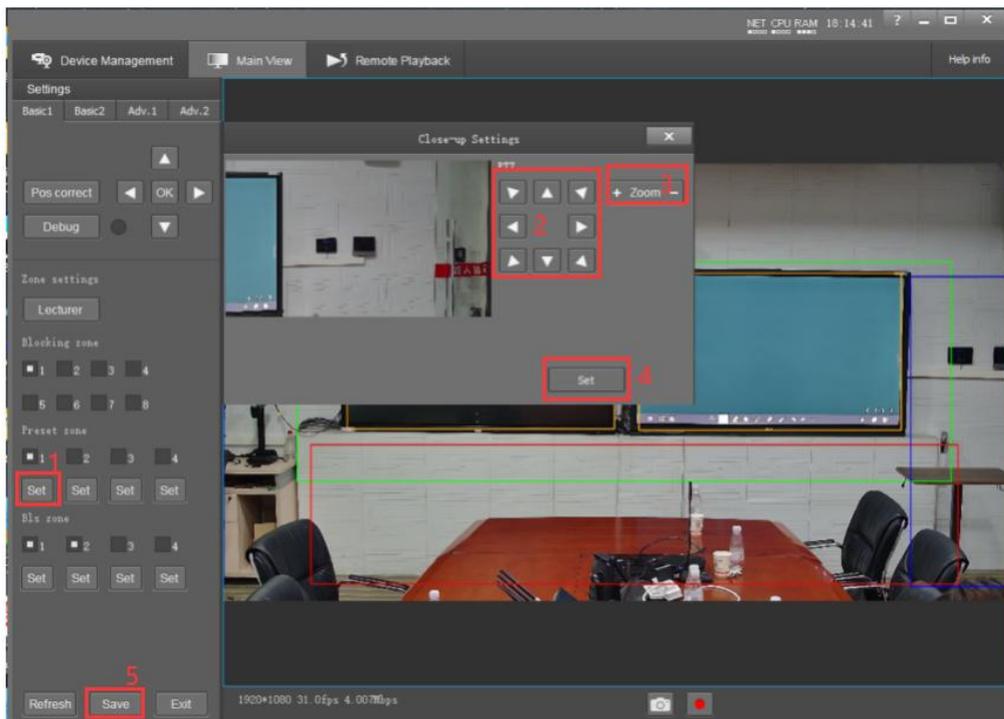
5. Blackboard zone

The yellow rectangle is the zone of blackboard, which the camera automatically tracks the blackboard zone when teacher is writing over the blackboard.(face to blackboard,one hand raise up)

Set ->Draw the selection -> Save
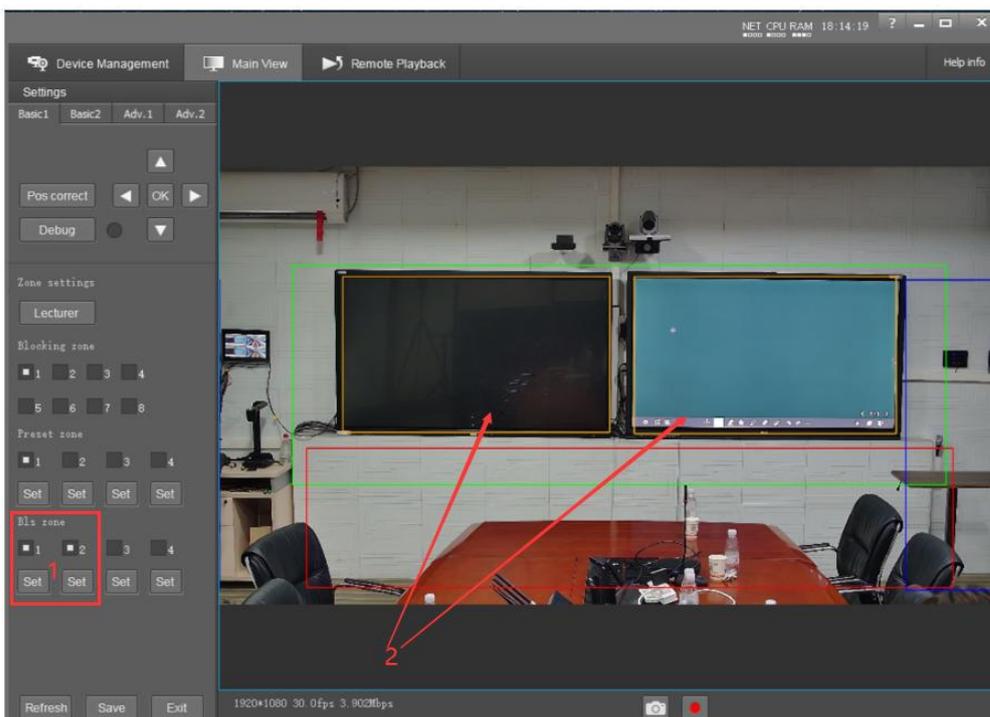
Set the tracking screen

Set-> Adjust the direction and size -> Set -> Save

Left Blackboard settings
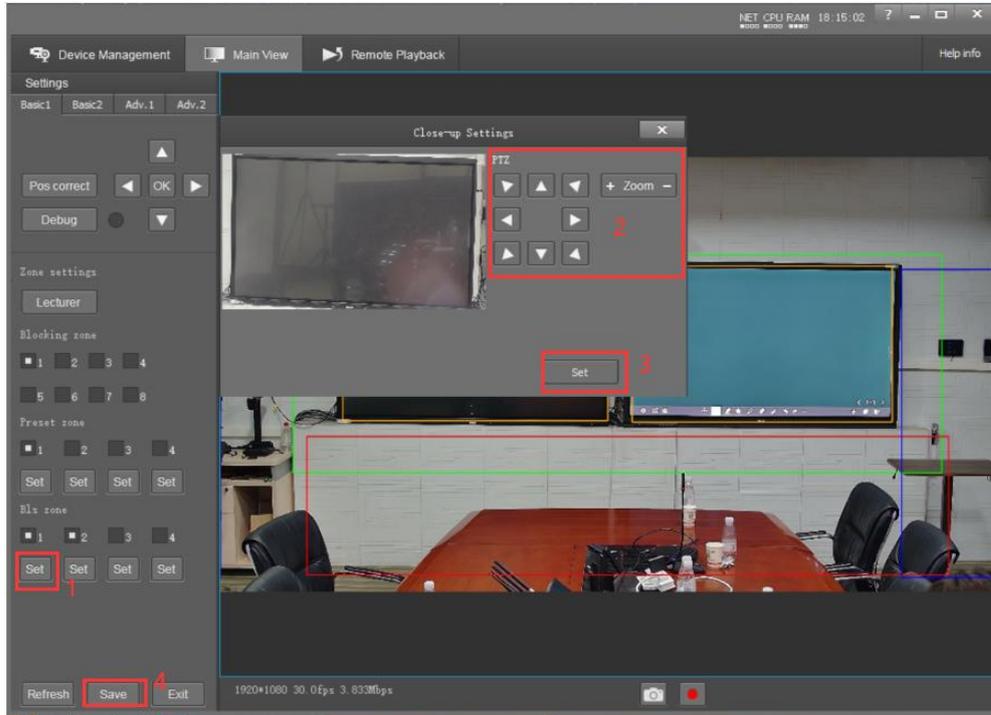
Right Blackboard settings
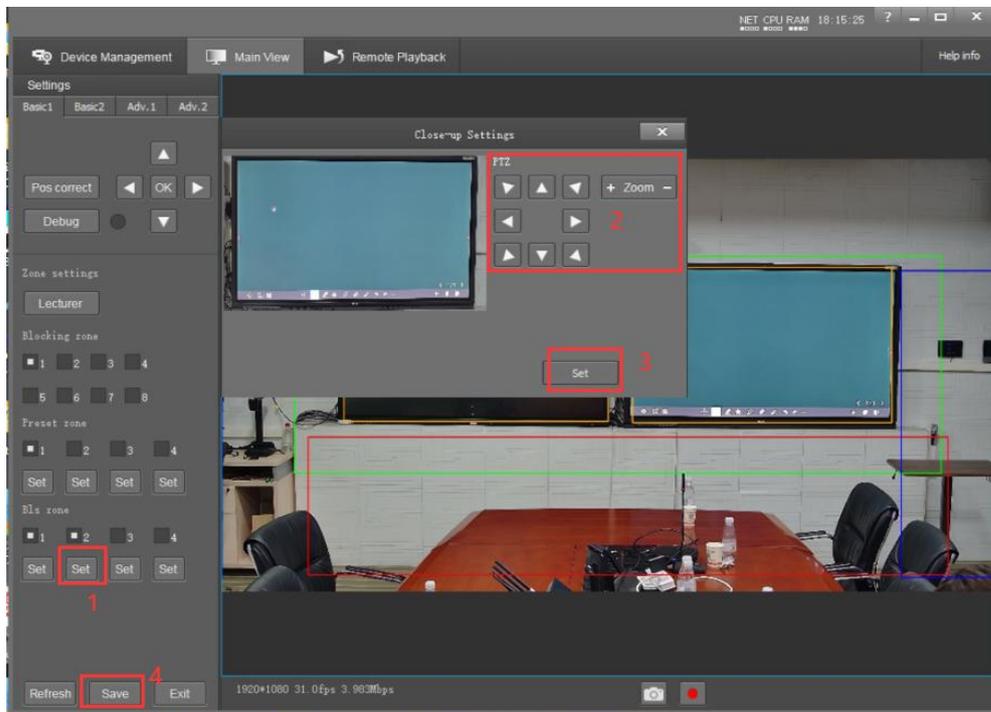
4.3 Student camera auto-tracking setting

Be sure to click Stop Tracking before you start tracking Settings.

1. Select camera->Stop ->set Presets 1 -> Settings
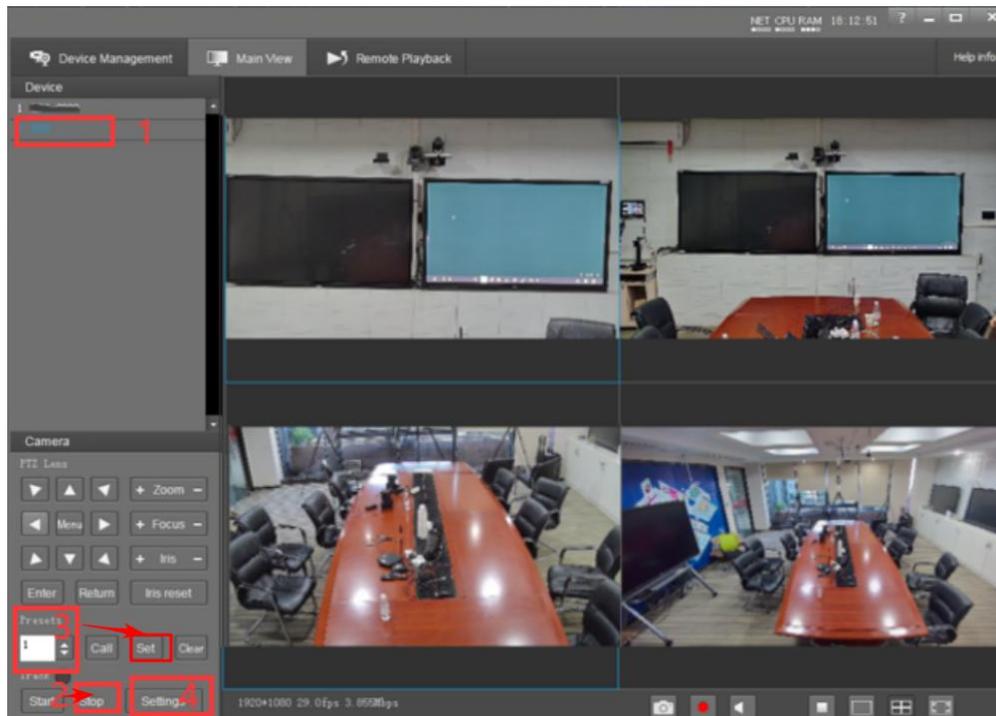
2. Blocking zone

The purpose of the red rectangle is to prevent distractions from interfering with the camera's tracking, such as people wandering outside the window.

Blocking zone -> Draw the selection -> Save
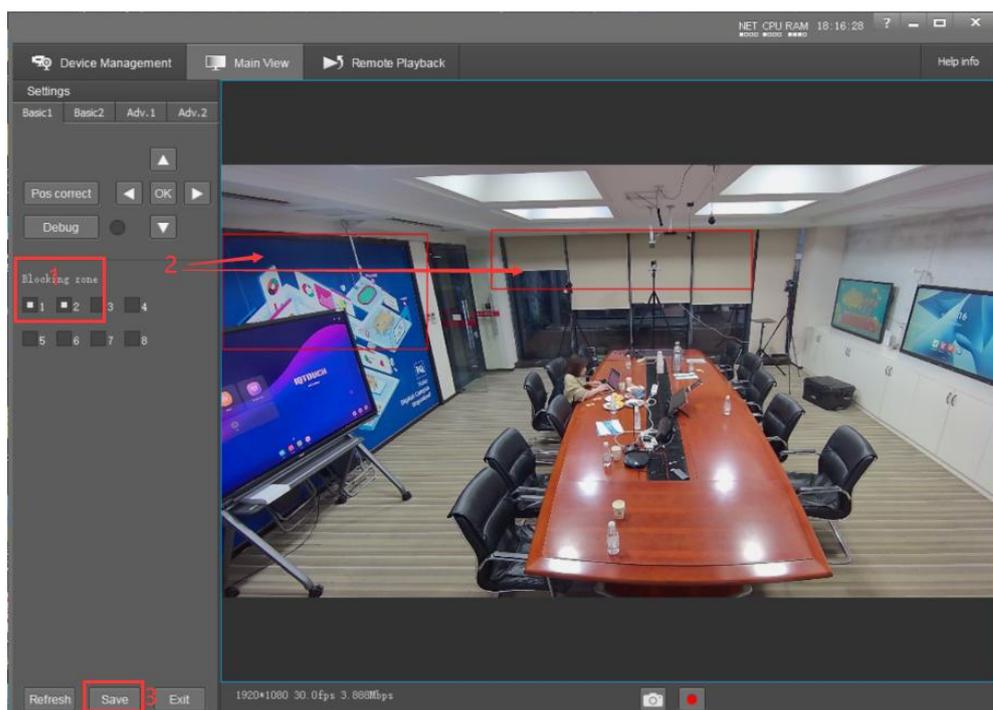
If the close up view is not tracking properly the student faces,check these two camera cmos center calibration:

Stop tracking-settings-Basic1-Pos Correct-adjust two cmos under the same center-ok.

Avoid manually adjust the PTZ camera.
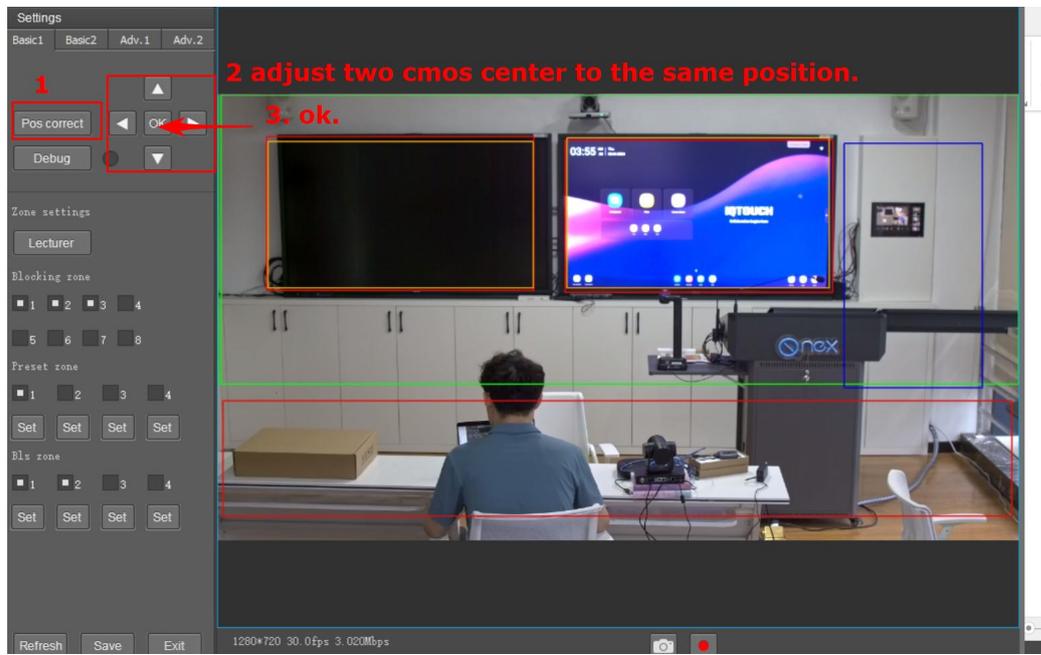
If every time when camera power on not able to track, check the camera settings:

Setting-> Basic2-> Power on State: track -> Save
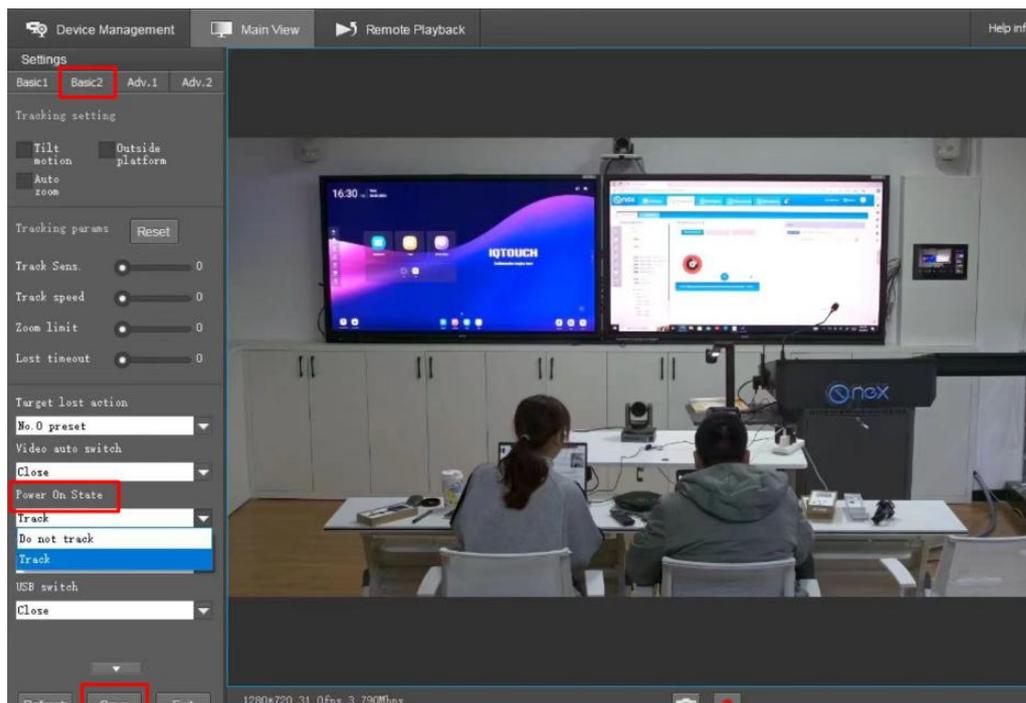
Chapter 5 PTZ Control Settings

1. Teacher camera PTZ control settings:

   Station Advance setting (admin/admin)-> Channel-> Teacher_C :

   Enable PTZ Control:

   IP Address: 192.167.32.65   Port: 5858

   Protocol: Visca   Type: UDP
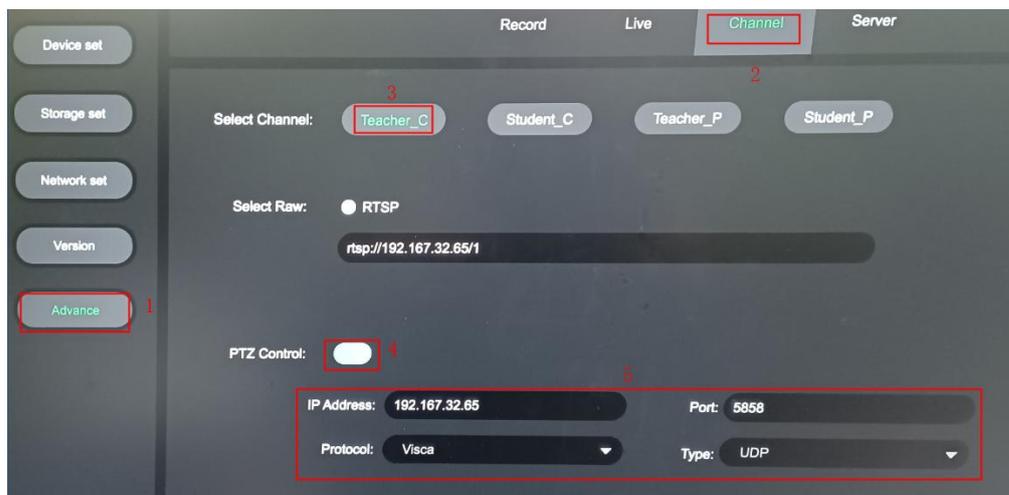
2. CameraCMS setting : (Synchronize: IP、port and protocol with station settings)

   Stop Tracking->Camera->Remote configuration->Protocol:

   IP : 192.167.32.65   Port: 5858   Protocol : UDP   Camera as: Client
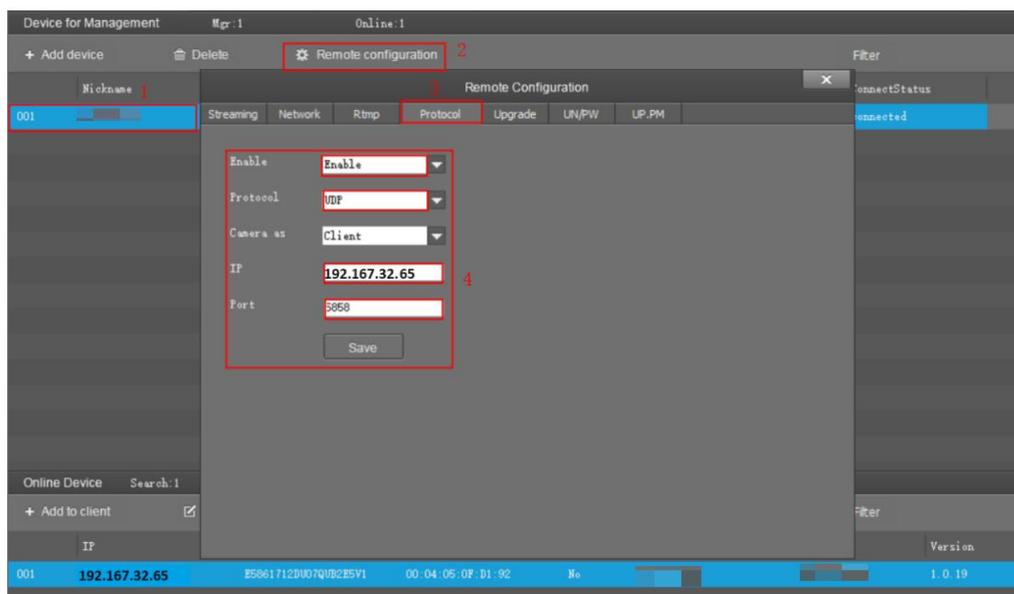
3. Station Advance setting (admin/admin) -> Channel-> Student_C :

Enable PTZ Control:

IP Address: 192.167.32.66   Port: 5858

Protocol: Visca   Type: UDP
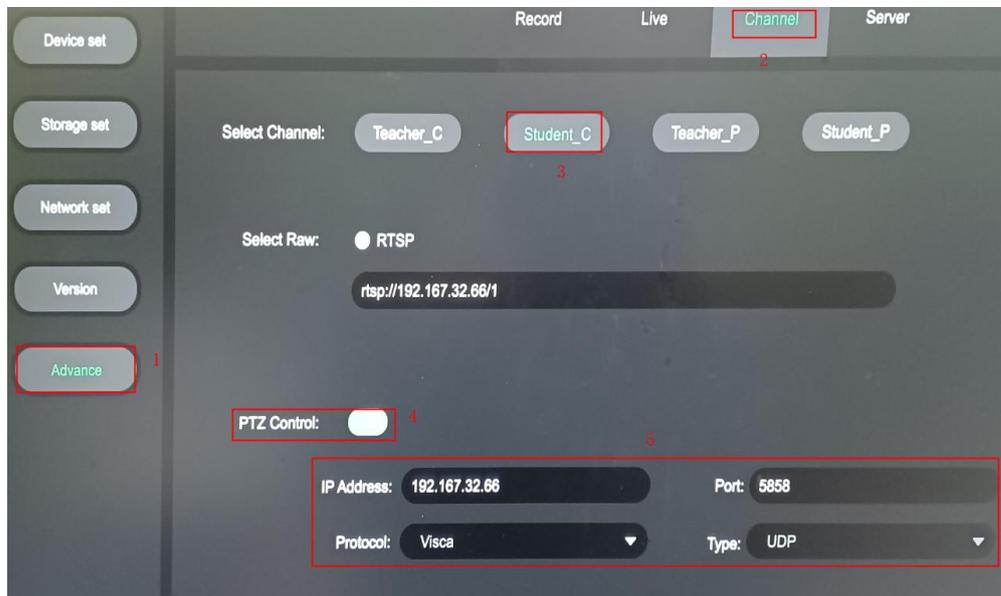
4. CameraCMS setting : (Synchronize: IP、port and protocol with station settings)

Stop Tracking->Camera->Remote configuration->Protocol:

IP : 192.167.32.66   Port:5858   Protocol : UDP   Camera as: Client
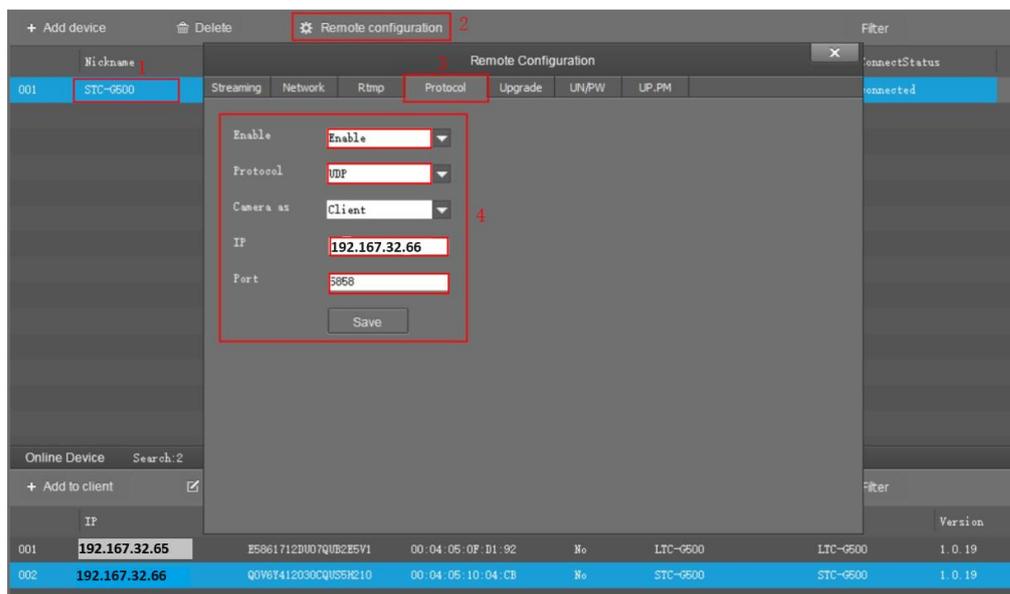
Chapter 6 Live Streaming

1. The PC should be under one network segment with the station.(connect with the

same router.)

2.Log in WEB of the Station using the station IP address.(browser by Chrome)
User: admin
Password: admin

3. Setting -> Live -> Channel Film1 Format (RTMP Push) ->
Server Address (eg: rtmp://110.90.11.185:21935/live/av12) -> Live Enable(on) ->OK

4.Click Start(LIVE) by the WEB

Or click Start(LIVE) by the Station:

Login the Station:

User: admin
Password: admin
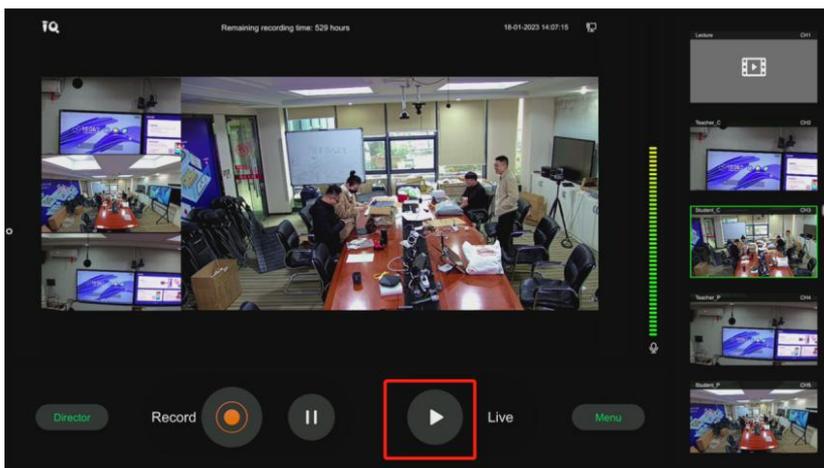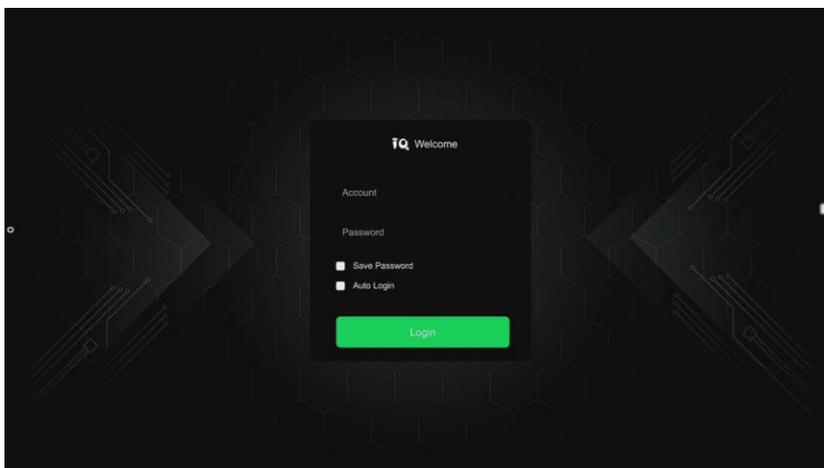
Chapter 7 Director View Control

Layout types to choose:
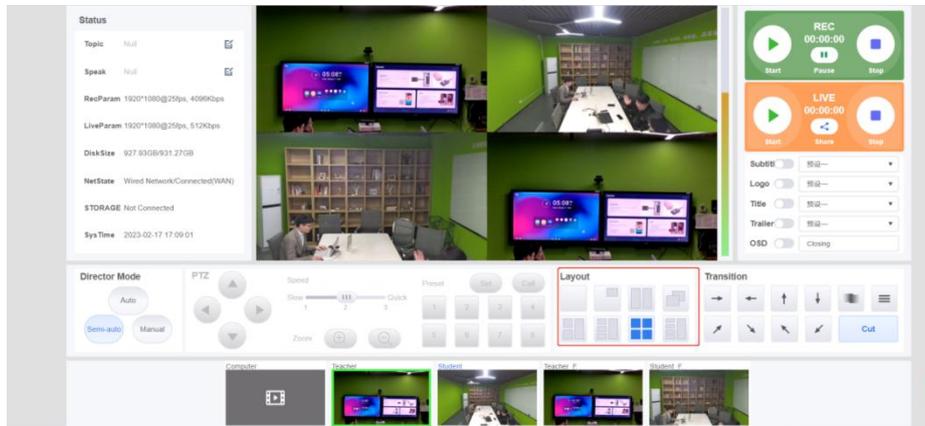
Drag by mouse directly, if you want to change the view or change the view position.
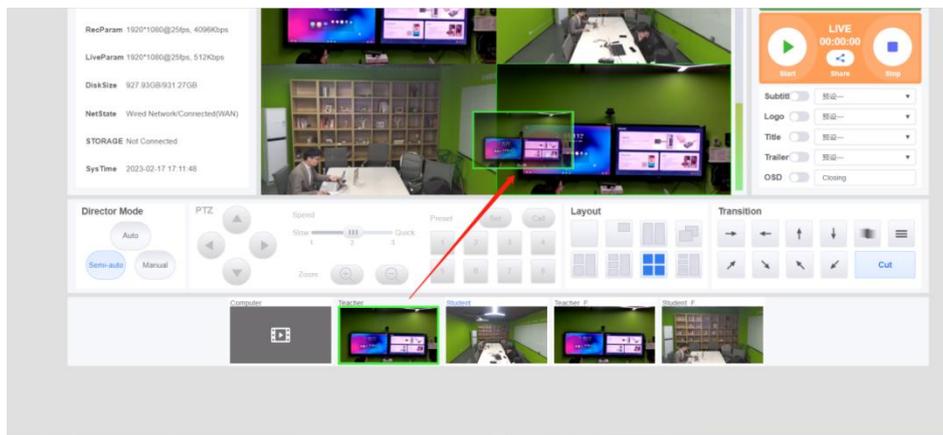
Or you could change the layout by the station:

1. Choose the layout.
2. Choose the Channel.
3. Click OK.

Chapter 8 Recording Settings

Login the WEB:

Station and PC under LAN,PC login the web control center by the **IP** of the station.

Account:admin

Password:admin

Record file support TS and mp4.

Suggestion set max duration as 2 hours or 4 hours to avoid all videos are TS format which is not able to play by station.(TS video need download and play by other tools)
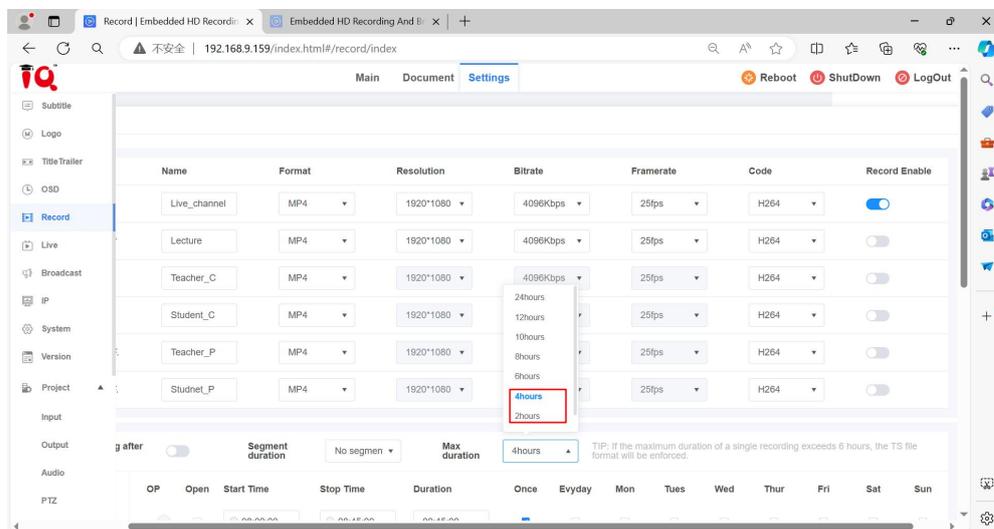
Support File Name DIY.
Support changing : Resolution、BitRate、FrameRate、Code.
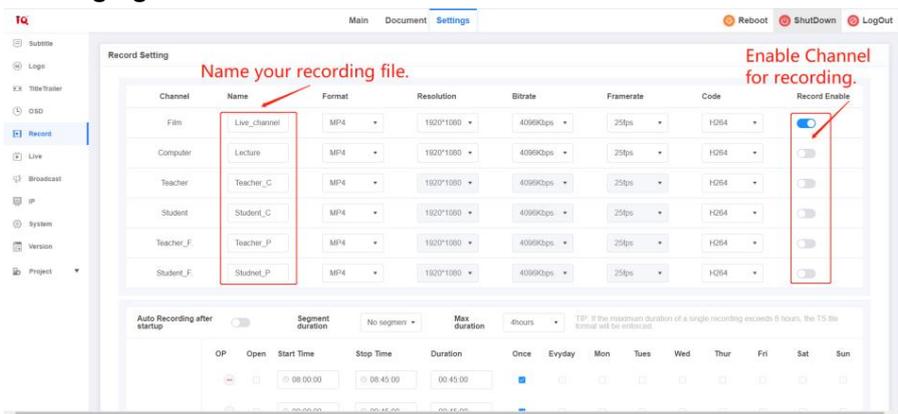
Support :Auto recording after power on.

Support :Set a video segment : 10 minutes,15 minutes,30minutes and so on. (Reach time segment,generate a file and stop recording.)

Support :Set a Max video duration.(Reach record max duration,generate a file and stop recording)

Support :Select the recording schedule: Everyday or every Monday,every Tuesday etc.
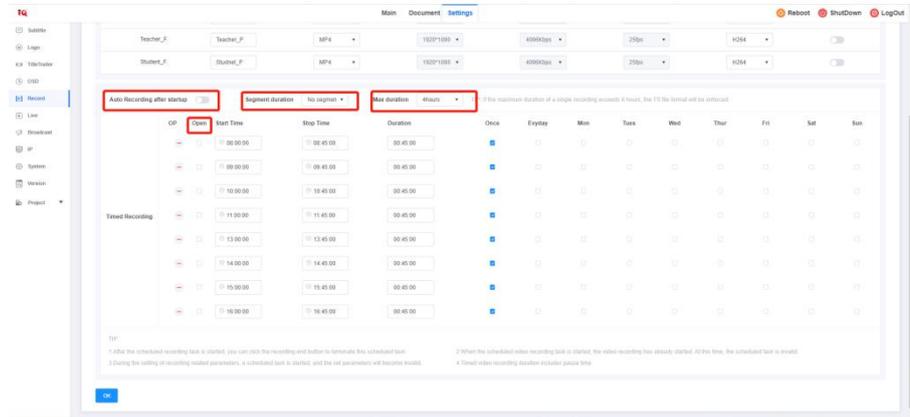
Chapter 9 Customize Lecture

Subtitle:

◆ Customize 5 subtitle preset.

◆ Customize font、size、color of the subtitle.
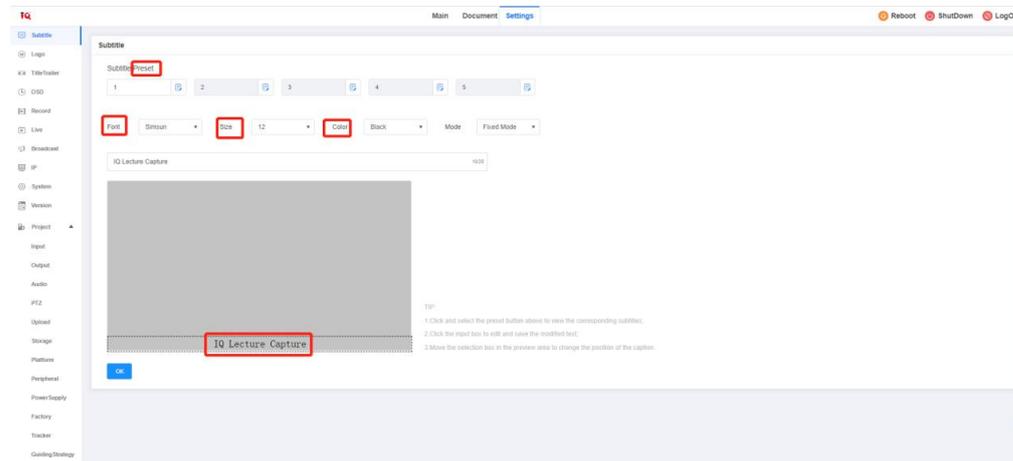
LOGO :

◆ Customize 5 logo presets.

◆ Customize your own logo file.

◆ Customize logo position.
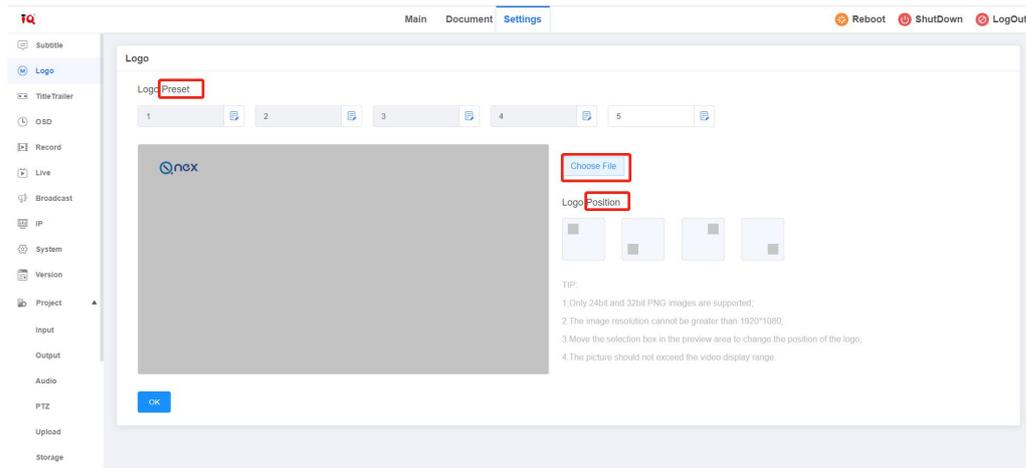
Beginning and Ending pictures:

◆ Customize 5 Beginning and Ending presets.

◆ Customize Beginning and Ending file.

◆ Customize Beginning and Ending duration.
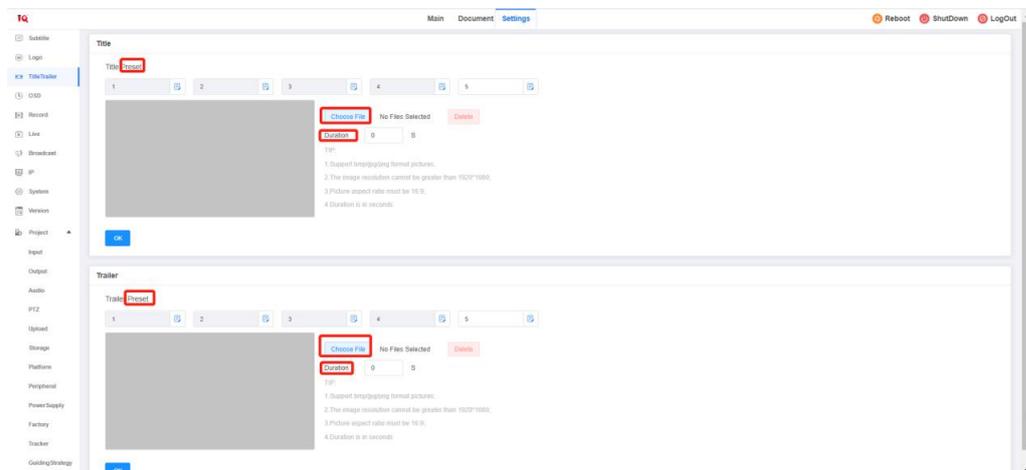
Date and Time:

◆ Customize your time format.

◆ Customize the color.
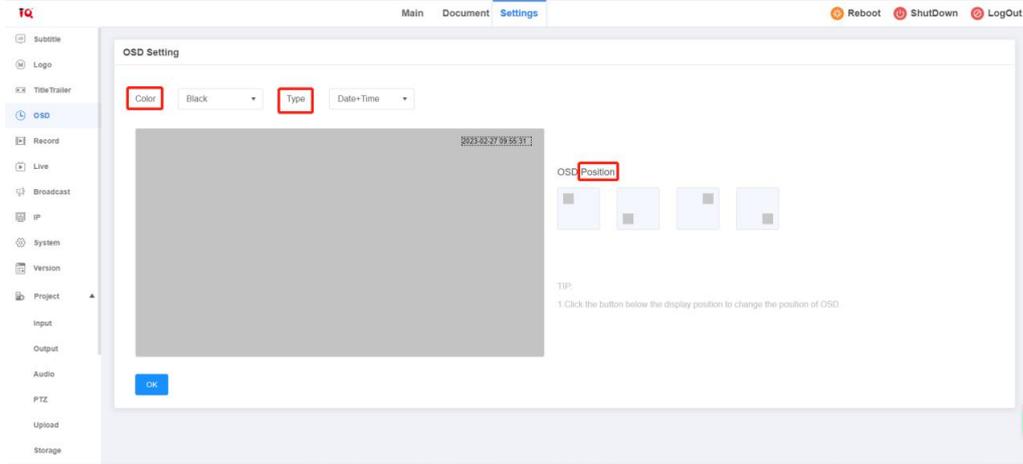
Chapter 10 Station Operation Guidance

1. **Start Recording& Stop Recording & Pause Recording.**

2. **Start Live Streaming&Stop Live Streaming.**

Director-Manual-Layout:(Change Views)

Click the channel you want to change and choose the right channel you need, then click "OK ".

3. **Change Station Language:**

   Go to Manu-Setting-Device set
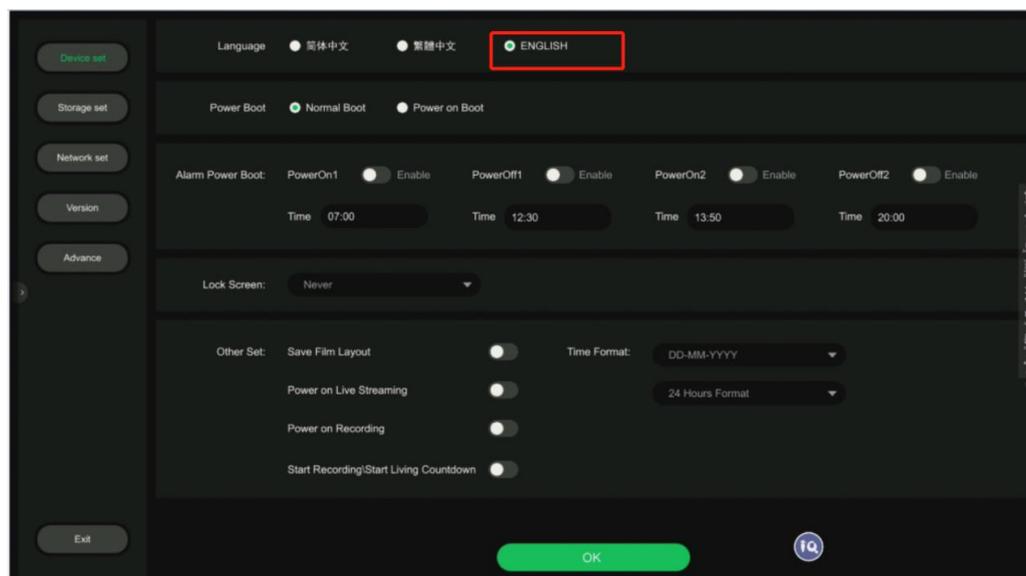
4. **Check Recorded Files:**

   Menu-Files:
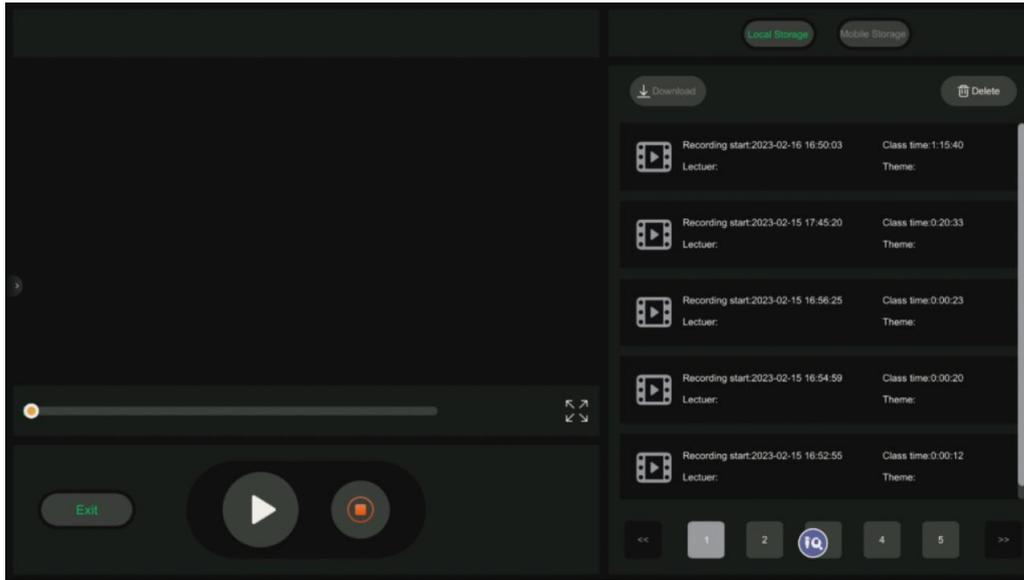
5. Schedule Power (everyday):

Support 2 power on and power off time schedule everyday, suggest set 7:00 am power on, 12:30 power off, 13:50 power on, 20:00 power off.(set according to the school time schedule)
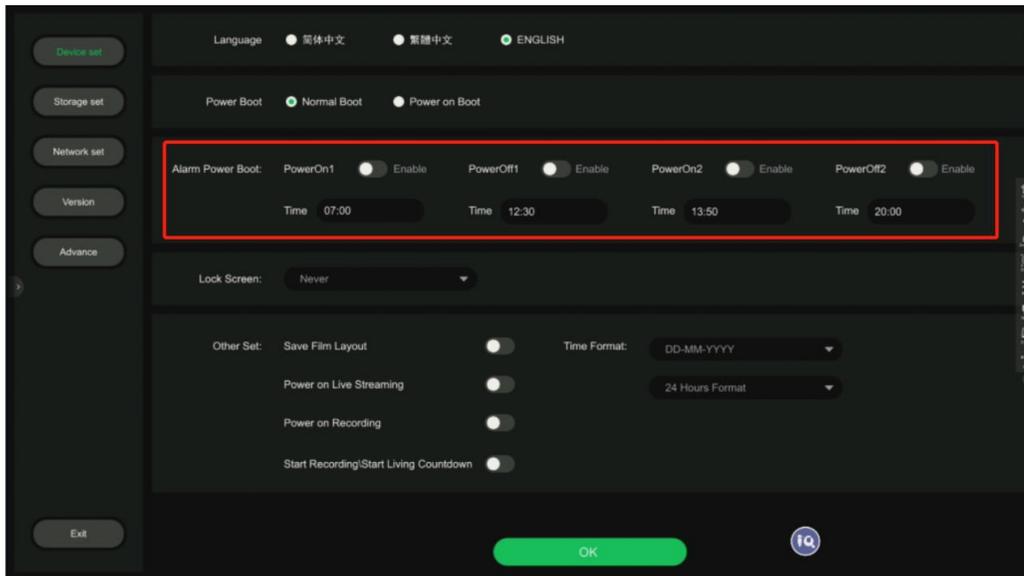
6. **Lock Screen Setting:**

Normally we set as never lock screen, if you set 2 minutes, after 2 minutes, screen would enter eco, need one click the power button to wake up the screen(without password).

Layout suggest set as: Save Film Layout. So that when we power on, system would show the views that we set last time.
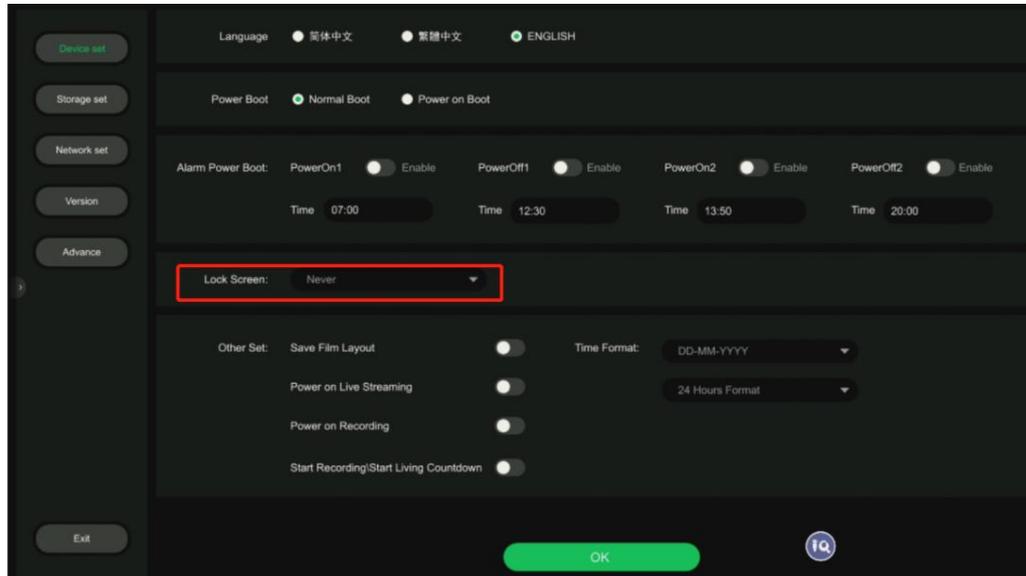
7. **Time Format:**
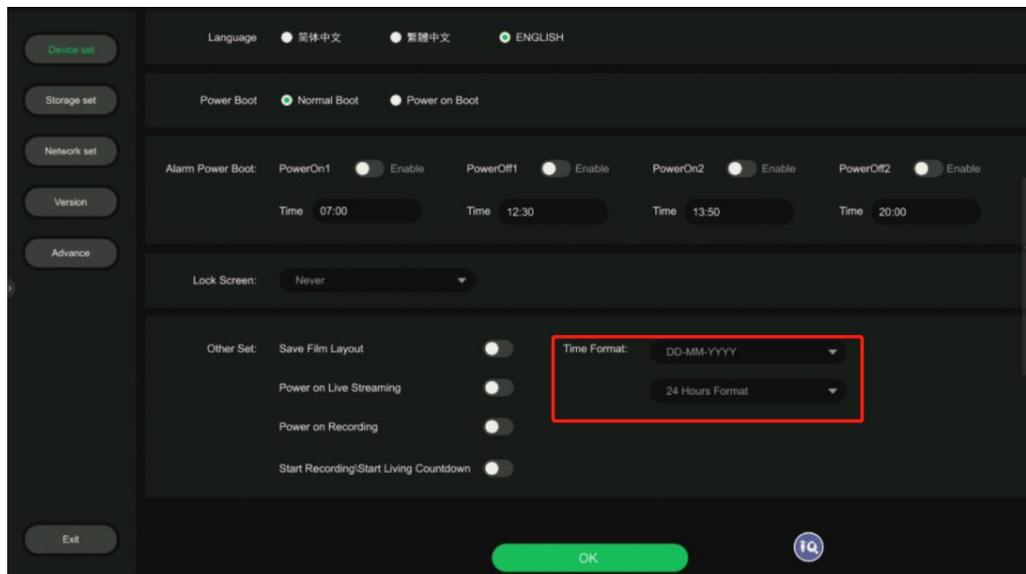
8. Record Strategy: Delete Priority or Stop Priority.

If you select "delete priority", system would delete the oldest video to keep recording new videos when run out of storage. (1 channel continuously recording would last about 1 months under 1TB storage)

If you select "Stop Priority",system would stop recording when run out of storage.
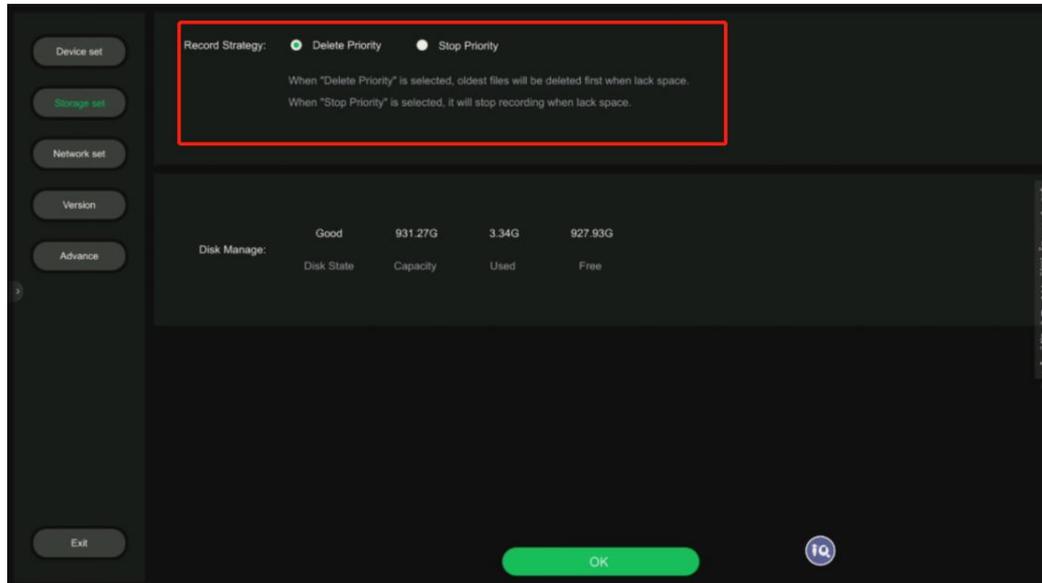
9. Network Information:

Net Detect could help you to check the internet connection state.
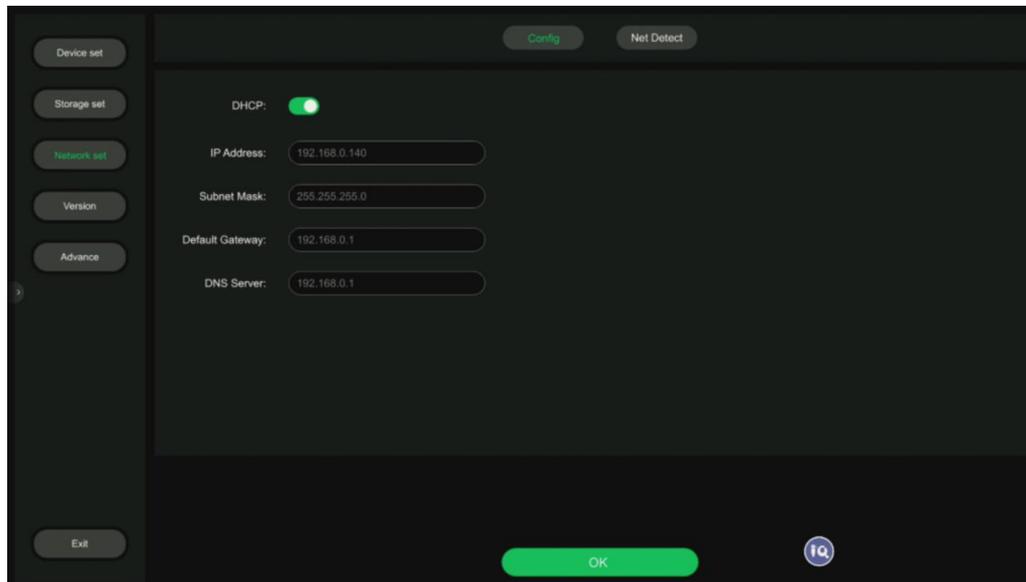
Chapter 11 Microphone & Mixer Utilization Guide

S610 IQ Digital microphone array

1. Product Description

Front

Bottom

Operating indicator

Mic

Metal bracket

Directional metal bracket
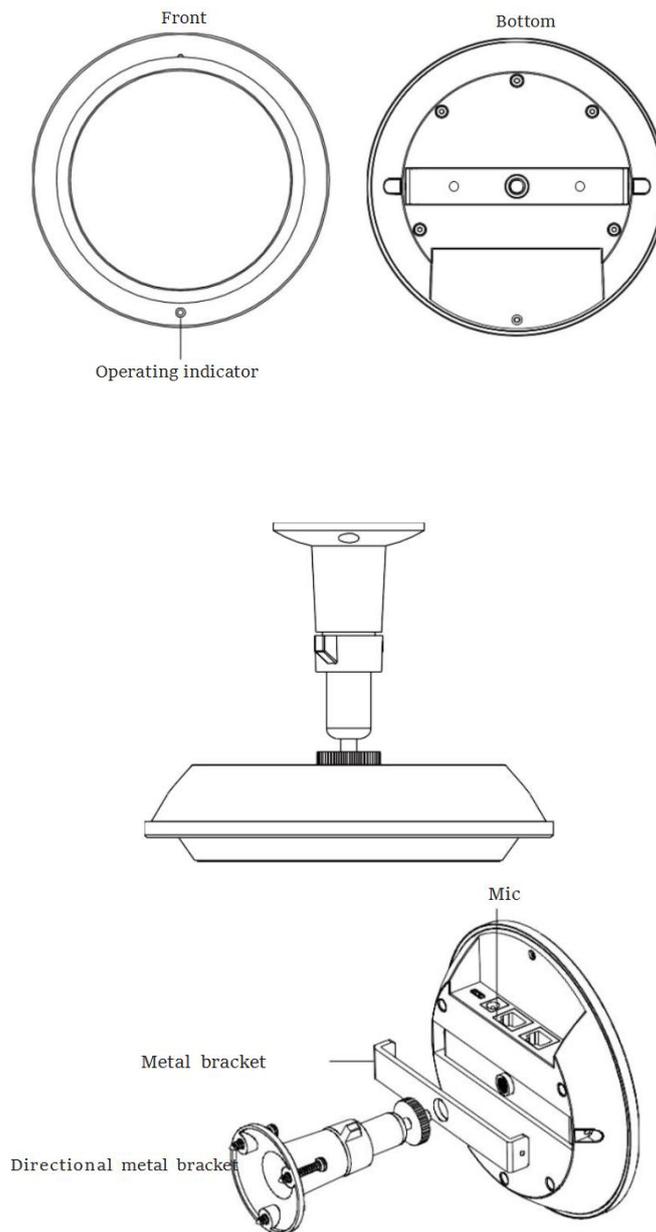
2. Interface Specification
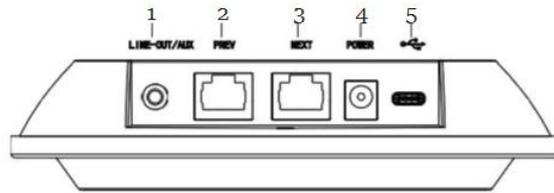
1. LINE-OUT/AUX: Local upstream audio/PC downstream audio (choose only one method)

2. PREV: Connect the Next Multi-cascading Unit(POE power supply)

3. NEXT: Connect the Previous Multi-cascading Unit(POE power supply)/HUB

4. POWER: DC 12V-1A Power Interface

5. USB: USB power supply + audio transmission

Mixer
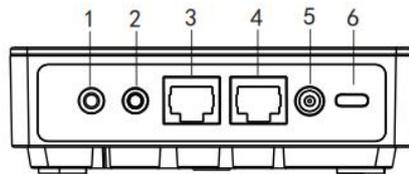
1. AUX:Audio output
2. IN/OUT:Recording signal input/output
3. NEXT2:Connect to ceiling microphone(POE)
4. NEXT1:Connect to ceiling microphone(POE)
5. POWER:DC12V/2A power interface
6. ⬲: USB powering and transmitting audio data

3. Connection Diagram

Local audio /Remote audio

USB communication

Network cableconnection (power supply by POE)
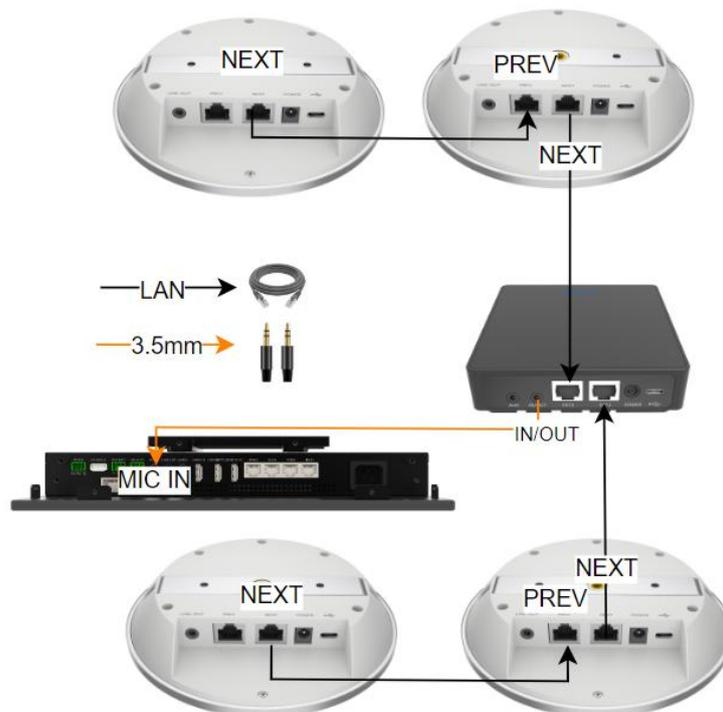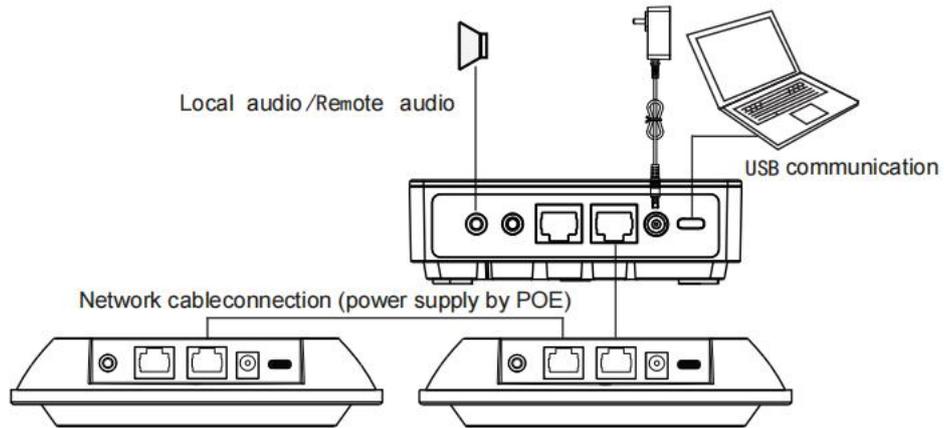
4. Installation

Note: When installing, it is necessary to drill holes on the wall, and insert the wall anchors into the drilled holes, then lock them with screws.

Method1: Rotable Installation (Additional purchasing of a ceiling bracket is required)

Wall

Wall

Ceiling Mounting

Screw

Screw
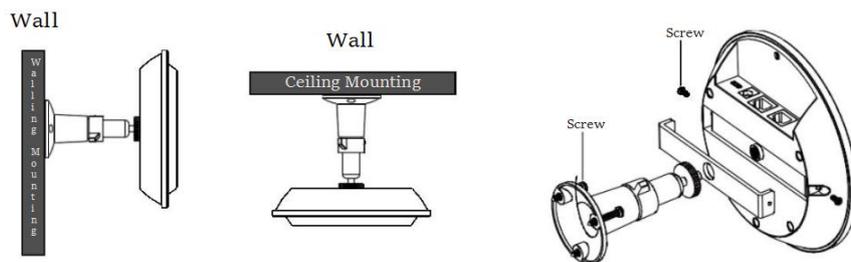
Method2 : Install in a fixed direction

Wall

Walling Mounting

Wall

Ceiling Mounting
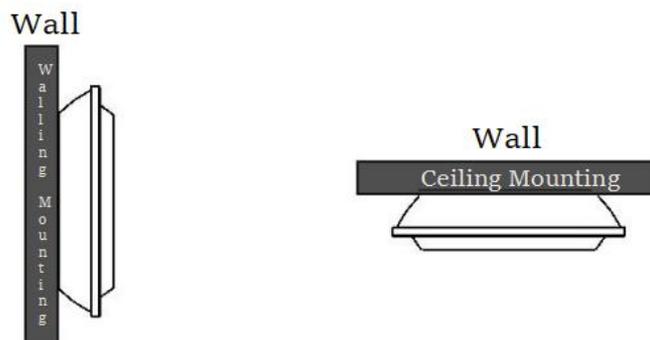
Chapter 12 Diagrams of Bracket

1. Bracket of Camera

   Unit of length: mm

   Tolerance: ±0.1

   Ratio: 1:2

   Surface paint spraying: black matte
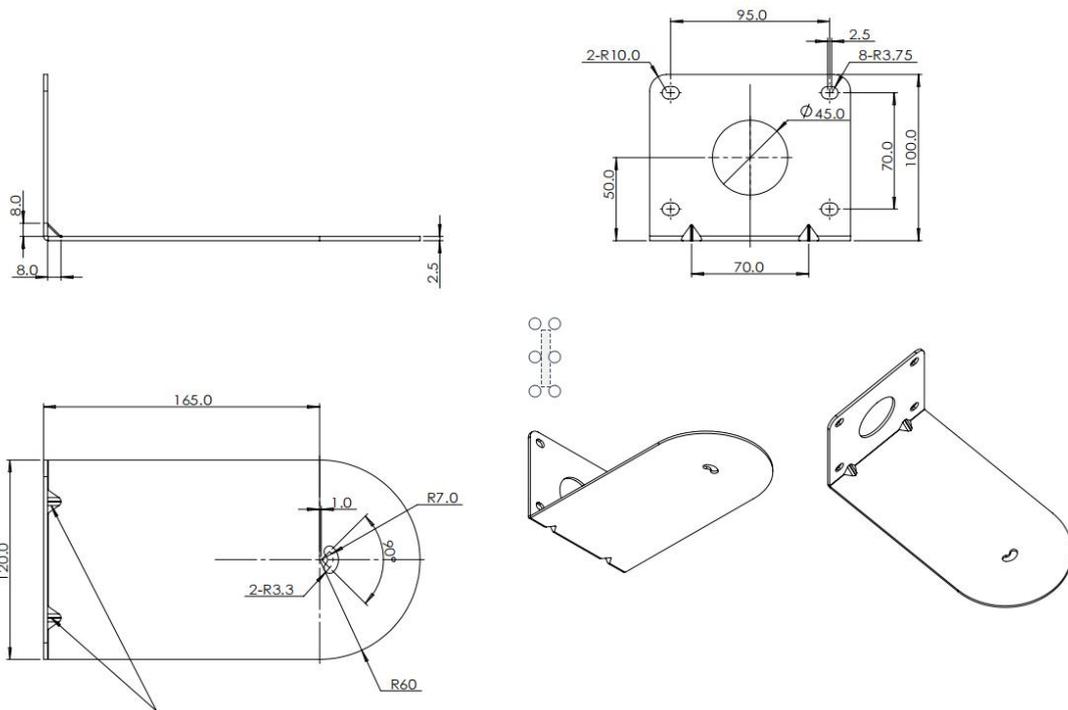
2. Bracket of Digital Array Microphone

Unit of length: mm

Tolerance: ±0.15
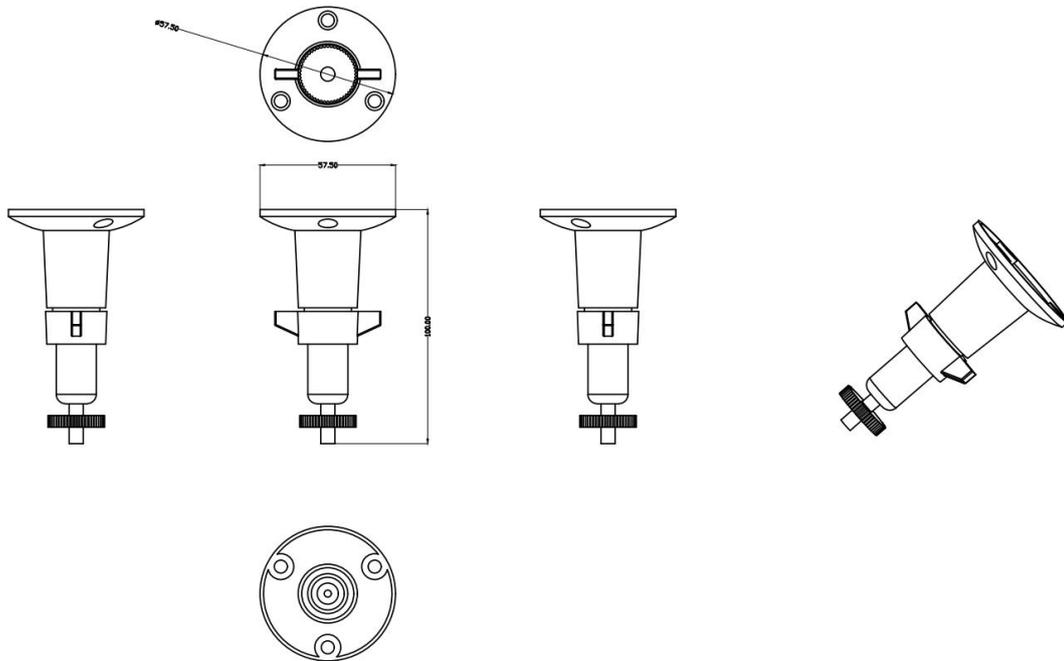
Ratio: 1:1

3. Bracket of Digital Array Microphone　(Already installed on the microphone bottom case)

Unit of length: mm

Tolerance: ±0.15

Ratio: 1:1