

# TR530/TR320

**User Manual** (Updated 02.16.2022)



## IMPORTANT NOTICE

- ✧ PLEASE READ THE INSTRUCTIONS IN THIS MANUAL BEFORE INSTALLING THE TR530 TRACKING CAMERA.
- ✧ DO NOT DISASSEMBLE OR MODIFY THE ITEMS BY YOURSELF. CONTACT THE DEALER FOR HELP WHEN THE ITEMS IS FAILED TO WORK.
- ✧ CONNECT THE DEVICES WITH PROPER CABLES.
- ✧ TO REDUCE RISK OF ELECTRIC SHOCK ONLY USE INDOORS.
- ✧ AVOID INSTALLING AT HUMID ENVIRONMENT.

### Federal Communication Commission Interference Statement



NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radiofrequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures

### European Community Compliance Statement (Class A)



This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2014/30/EU.

**Warning** - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

### DISCLAIMER

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this documentation is subject to change without notice.

In no event will AVer Information Inc. be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages.

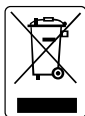
## TRADEMARKS

"AVer" is a trademark owned by AVer Information Inc. Other trademarks used herein for description purpose only belong to each of their companies.

## COPYRIGHT

©2019 AVer Information Inc. All rights reserved.

All rights of this object belong to AVer Information Inc. Reproduced or transmitted in any form or by any means without the prior written permission of AVer Information Inc. is prohibited. All information or specifications are subject to change without prior notice.



The mark of Crossed-out wheeled bin indicates that this product must not be disposed of with your other household waste. Instead, you need to dispose of the waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about where to drop off your waste equipment for recycling, please contact your household waste disposal service or the shop where you purchased the product.

## Remote Controller Battery Safety Information

- Store batteries in a cool and dry place.
- Do not throw away used batteries in the trash. Properly dispose used batteries through specially approved disposal methods.
- Remove the batteries if they are not in use for long periods of time. Battery leakage and corrosion can damage the remote control. Dispose of batteries safely and through approved disposal methods.
- Do not use old batteries with new batteries.
- Do not mix and use different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire.
- Do not attempt to short circuit the battery terminals.

## Contact Information

AVer Information Inc.

668 Mission Ct

Fremont, CA 94539

[www.averusa.com](http://www.averusa.com)

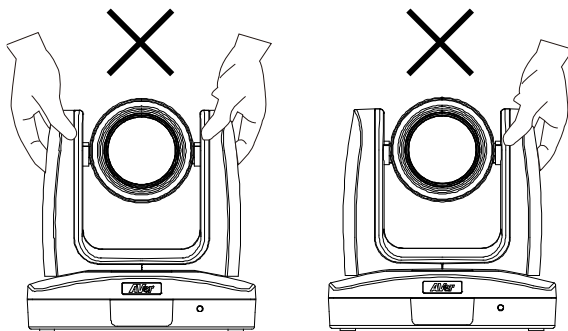
Toll-free: 1(877)528-7824

Local: 1(408)263-3828

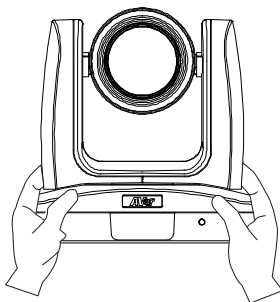
Support.usa@aver.com

## WARNING

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Warranty will be void if any unauthorized modifications are done to the product.
- Do not drop the camera or subject it to physical shock.
- Use the correct power supply voltage to avoid the damaging camera.
- Do not place the camera where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
- Hold the bottom of the camera with both hands to move the camera. Do not grab the lens or lens holder to move the camera.



**OK**



# CONTENTS

<b>INTRODUCTION.....</b>	<b>1</b>
Package Contents.....	1
Product Overview.....	2
Dimension .....	2
Remote Controller .....	3
<b>CONNECTIONS.....</b>	<b>4</b>
Device Connections .....	4
RS232 Pin Definition .....	5
<b>MODE INTRODUCTION .....</b>	<b>6</b>
Wide Area Mode.....	6
Stage and Segment Mode (FW .51 or above for TR320) .....	7
<b>CAMERA SETUP.....</b>	<b>9</b>
Make a Connection to TR530 / TR320 via AVer IPCam Utility ..	12
Enable Tracking Function.....	13
Setup Object Viewing Dimension .....	14
Tracking Mode Instruction .....	15
Wide Area Mode.....	16
Setup Priority Zone .....	16
Setup Shielded Zone .....	17
Setup Multi-people Detection .....	18
Stage Mode.....	20
Setup Effective Zone.....	20
Setup Shielded Zone .....	21
Setup Target Tracking Body.....	22
Setup Multi-people Detection .....	23

Segment Mode.....24

    Setup Effective Zone.....24

    Setup Shielded Zone .....27

    Setup Target Tracking Body .....28

Preset Setup .....29

Upgrade Firmware .....30

Using RTSP connection to Camera .....30

**OSD SETUP .....31**

Before You Begin .....31

First Time Use .....31

    Trigger OSD Menu.....31

    Setup IP Address .....32

OSD Tree Map .....34

    Main .....34

    Tracking .....34

    Camera .....35

    Video Format .....40

    Advanced Setting.....42

    Preset .....42

    Language.....43

    Profile.....43

    Factory Default .....44

    Information.....44

    Hot Key .....45

**FAQ .....46**

# INTRODUCTION

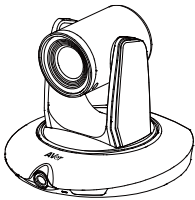


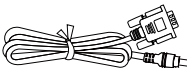
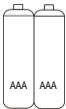


AVer TR530 / TR320 is a professional tracking camera which supports 3 tracking methods, namely: Wide area, Stage or Segment mode. The TR530 / TR320 uses body motion and image analysis algorithm to track the intended target; the target subject does not need to wear any signal transmitting device. The TR530 / TR320 can communicate with most recording systems through RS232 or an IP network interface. The TR530 / TR320 has stable system, easy to use, and suitable for classroom, meeting room, and any lecture or course environment.

## Package Contents

The following items are included in the package.

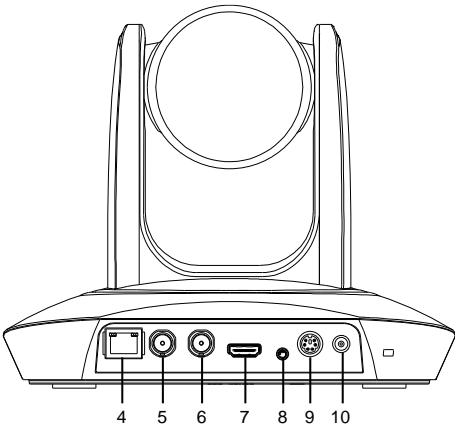
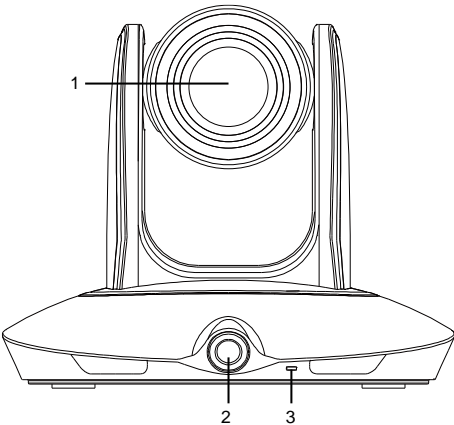
**[Note]**

- 1. Do not disassemble or modify the items by yourself. Contact the dealer for help when the item failed to work.
- 2. Store the items in a dry place away from moisture.

TR530 / TR320 unit	Power adapter	Power cord	RS-232 to D-Sub 9 cable
			
Battery	Quick Guide	Remote Controller	
			

**[Note]** The power cord will vary depending on the standard power outlet of the country where it is sold.

# Product Overview

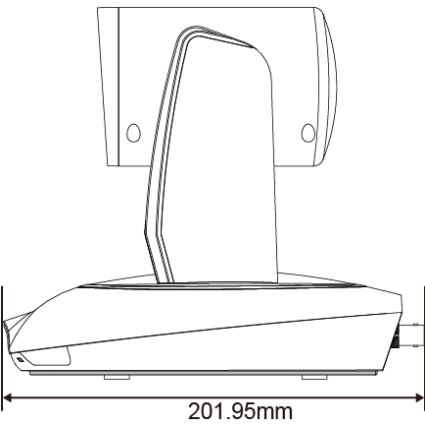
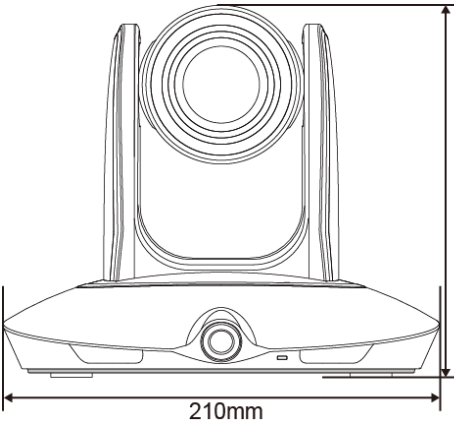


- 1. PTZ camera
- 2. Panoramic camera
- 3. Power indicator
- 4. RJ-45 port
- 5. 3G-SDI 2 port (Panoramic view)

- 6. 3G-SDI 1 port (PTZ view)
- 7. HDMI port (PTZ view)
- 8. Audio in port\*
- 9. RS-232 port
- 10. Power jack

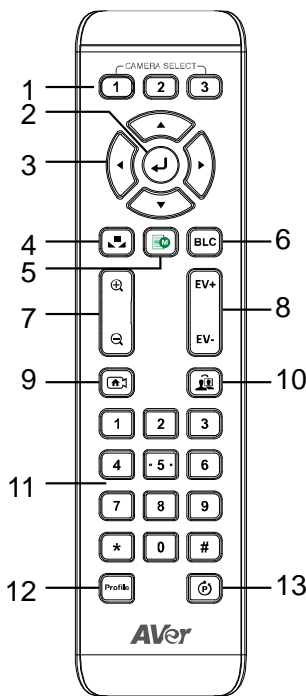
\*Audio input level: 1Vrms(max.)

# Dimension





# Remote Controller



1. Camera select

**[Note]** Only channel No.1 is available.  
Before you use remote, please press channel 1 first.

2. Enter

3. Camera direction control

4. White balance

5. OSD menu

6. Back light control

7. Zoom in/out

8. Exposure compensation

9. Home position

**[Note]** Press and hold for 3 seconds to turn on or turn off the TR530 / TR320 unit.  
Only supported with TR530 / TR320 FW version 0.0.1000.08 and above.

10. Tracking on/off

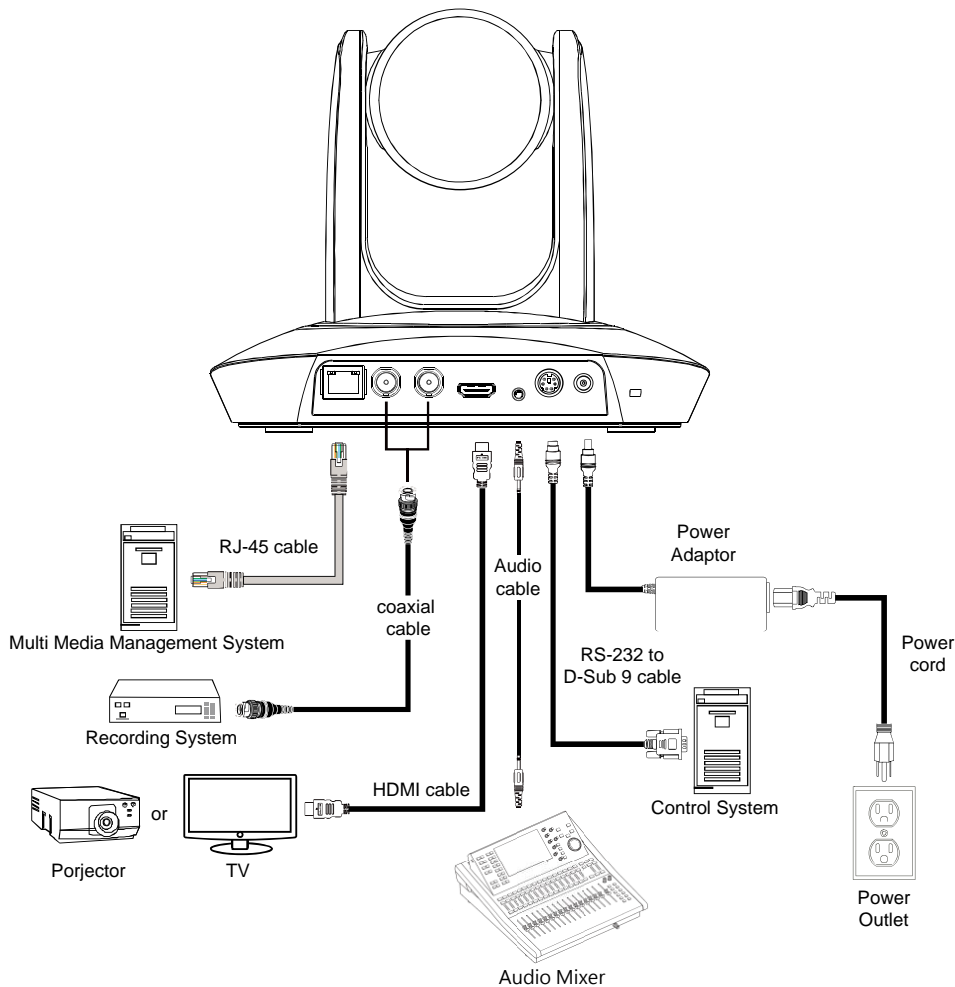
11. Number buttons

12. Profile

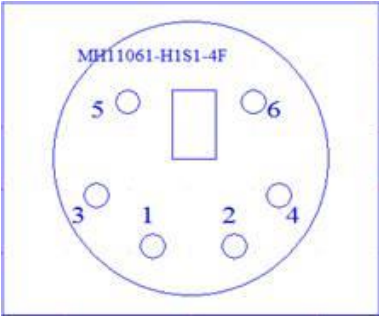
13. Preset

# CONNECTIONS

## Device Connections



# RS232 Pin Definition



Pin	Definition
1	RS232_DTR
2	RS232_DSR
3	N.C.
4	RS232_TXD
5	GND
6	RS232_RXD

# MODE INTRODUCTION

---

## Wide Area Mode

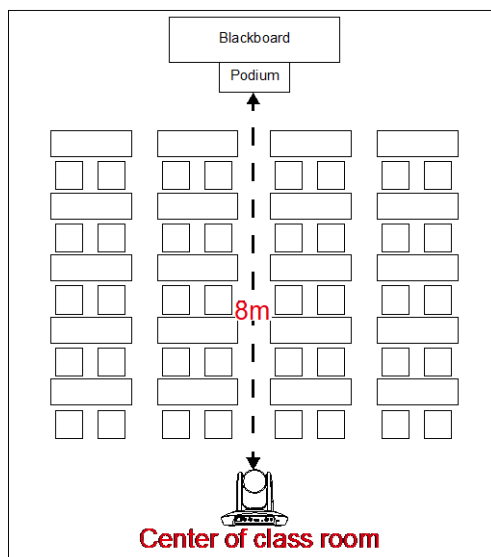
### ✧ Application

- This mode is suitable for a teacher or a lecturer tracking in normal sized classroom. The algorithm is based on face detection, not facial recognition.
- Regardless if the target is close to or away from TR530 / TR320, the tracking camera will automatically zoom in/out to maintain the appropriate size and proportion, when auto zoom is enabled.
- If the tracking target is locked, TR530 / TR320 will not be affected by the other moving objects.

### ✧ Limitation

- This mode is easily affected by the brown objects or the color similar to skin tone. Things like cartons and wood furniture.
- It should be used in a brightly lit environment. If the light level is not enough, it may not be able to properly track the object.
- It should not be used in an environment with high bright contrast. For example, the environment with lots of IFP or projectors in the background. When the target enters or leaves the high bright contrast zone, the TR camera may not be able to track the object properly.

- **Install height range (from floor):** 2 ~ 3m; **2.4m** is suggested.
  - **Distance range to podium:** 4~15m; **8m** is suggested.
  - **Position:** Center of classroom.



## Stage and Segment Mode (FW .51 or above for TR320)

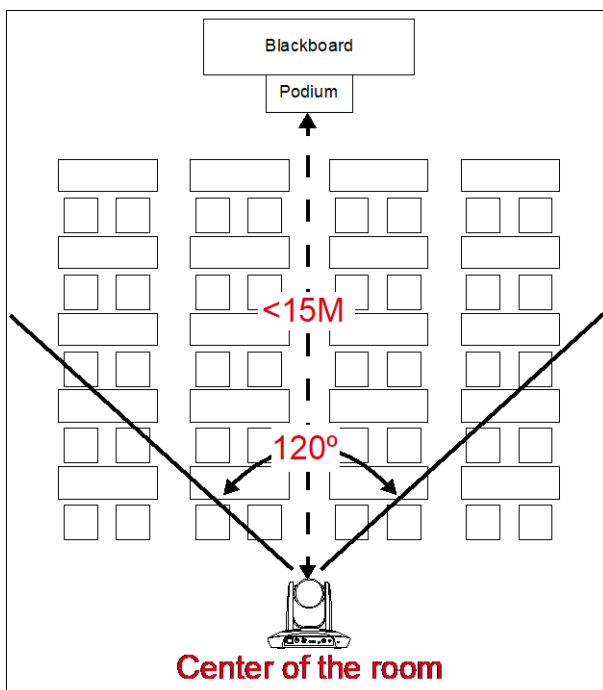
### ✧ Application

- It's suitable for a more complicated environment due to the utilization of the absolute motion tracking algorithm. The TR530 / TR320 will not be affected by the color of wood furniture or any high bright contrast background.
- Suitable for only one person in the tracking zone.

### ✧ Limitation

- Tracking is only available for horizontal movement. It will not auto zoom in/out for target close to or going away from the TR530 / TR320
- Due to absolute motion tracking, it is unable to check who the target is or who the interference is. It does not have anti-interference ability.
- Due to the FOV limitation, the tracking zone is only available within the 120 degrees provided by the panoramic camera.
- Distance limitation <15M

- **Install height range (from floor):** 2 ~ 3m; **2.4m** is suggested.
- **Distance range to podium:** 4~15m; **8m** is suggested.
- **Position:** Center of the room.




# CAMERA SETUP

## Setup IP Address

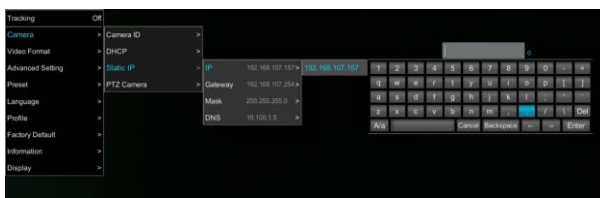
Before setting the AI function, please set the IP address first. There are two ways to setup IP address of the camera. Please follow the steps below to setup the IP address by connecting the camera to an HDMI display. It is important to get the camera onto the network as this is the only way to properly setup and configure the camera for Auto Tracking.

### ■ Static IP Address


1. After starting-up, press  button on remote control to call setup menu.
2. Use ▲ and ▼ buttons to select the **Camera > Static IP > IP**, then press ► button to enter IP address.

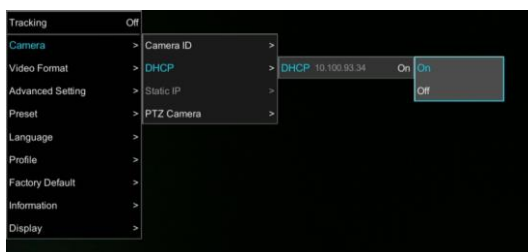
**[Note]** If DHCP is on, please turn off DHCP before setup static IP address. Go to **Camera > DHCP > DHCP > Off**.

3. To setup gateway and DNS, use ▲ and ▼ to select “Gateway” or “DNS”. Then, press ► button to enter the value.

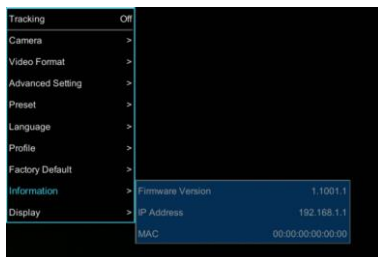


### ■ Dynamic IP Address

1. After starting-up, press  button on remote control to call setup menu.
2. Use ▲ and ▼ buttons to select the **Camera > DHCP > DHCP > On**, then press ► button to get IP address from local DHCP server.

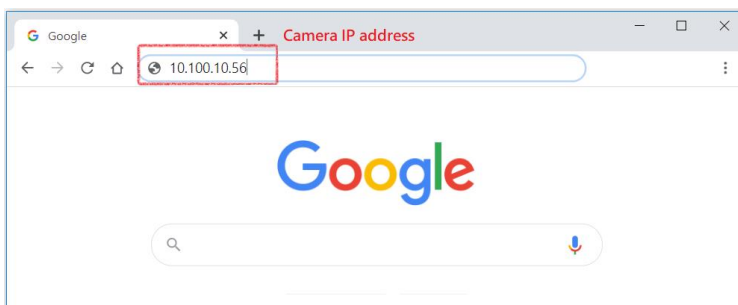



3. Use ▲ and ▼ buttons go to “**Information**” to check the IP address information.

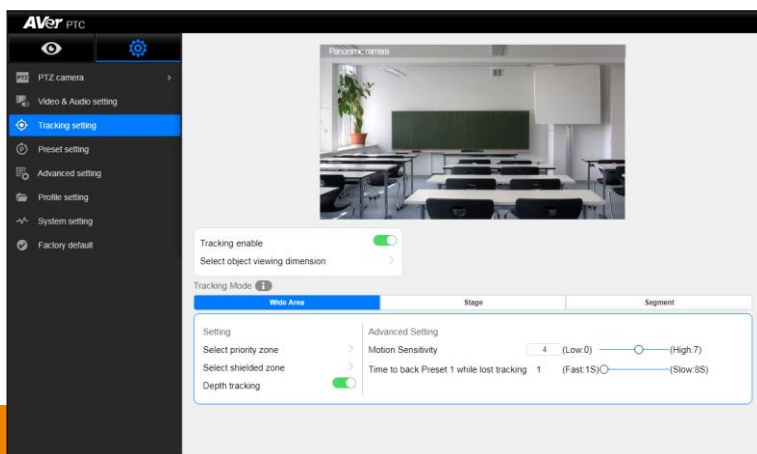


## Camera Setup Guide

- For the best experience, we recommend using the Google Chrome browser to access the camera. If you have difficulty getting proper browser response, please clear the browser cache first.
- Key in the Camera IP address into browser and to login into control page.



- After login the web interface (password: **admin**), select “ start setup.





- If you are having problems accessing the camera login page or having intermittent video streaming problems on your browser please upgrade the firmware on the camera to the latest version: <https://averusa.com/pro-av/support/>
- Refer to the video guides on the support site on configuration options and how best to program the camera for your environment.

## **AVer PTZ Management**

When your camera is all setup on the network, you can download our free camera control and management software AVer PTZ Management. This software enables complete control of its devices on Windows PCs and laptops. And it offers convenient and simultaneous control of up to 128 cameras.

### **Download link**

**USA:** <https://www.averusa.com/pro-av/support/>

# Make a Connection to TR530 / TR320 via AVer IPCam Utility

**[Note]** The TR530 / TR320 FW version 0.0.1000.08 and above supports IPCam Utility application. To find the IP address of your cameras, you can execute the IPCam Utility installer. Follow the below steps to find the IP address of camera.

1. Download the IPCam Utility from <http://surveillance.aver.com/DownloadFile.aspx?n=2517|249C0709-10E3-4182-B8E3-C2CE8A79129C&t=ServiceDownload> .
2. Run the IPCam Utility.
3. Click Search, and all available devices will be listed on the screen.
4. Select a camera from the list.
5. The corresponding fields of IP address will display.
6. Double-click on the IP address of camera from the list can connect to camera through the browser.

**[Note]** If IPCam utility cannot find the camera, please check following:

1. Please make sure the Ethernet connection of camera is well connected.
2. The camera and PC (IPCam utility) are in the same LAN segment.

AVer IPCam Utility v2.7.1029.34

Network Device: Realtek PCIe GBE Family Controller [Search]

Login: User ID [ ] Password [ ]

Network Setting | Date/Time Setting | Maintenance | Import/Export Config

Search Result: [Select All]


No.	Status	Progress	Model Name	Device Name	FW version	IPv4 Address	MAC Address	IPv6 Address
1	Working		Tracking Camera	Tracking Camera	0.0.1000.38	10.100.93.34:80	00:18:1a:00:54:87	[ ]:80


Settings: Device Name: [ ] Start IP Address: [ ] End IP Address: [ ] Subnet Mask: [ ] Gateway: [ ] Primary DNS: [ ] Secondary DNS: [ ]

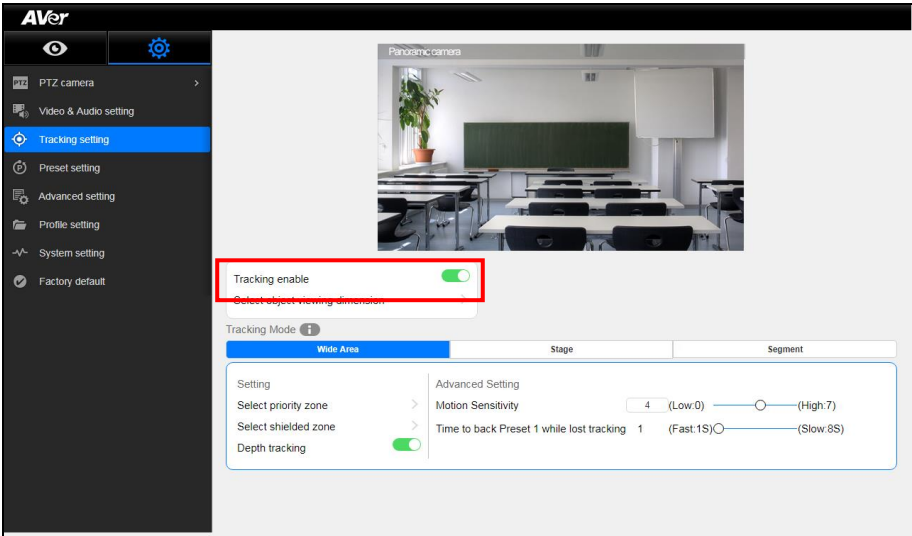
\*Auto search will start after settings changed!  
☐ Don't start auto search this time!

[Apply]

# Enable Tracking Function

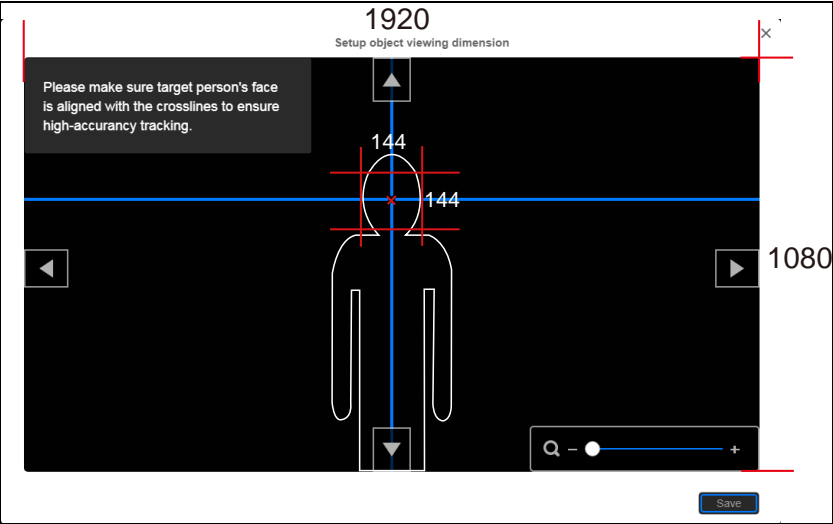
Turn on and off the tracking function. Select  > **Tracking setting** > **Tracking on**. You can also


turn On/Off the tracking function via the camera remote. “two heads icon” 



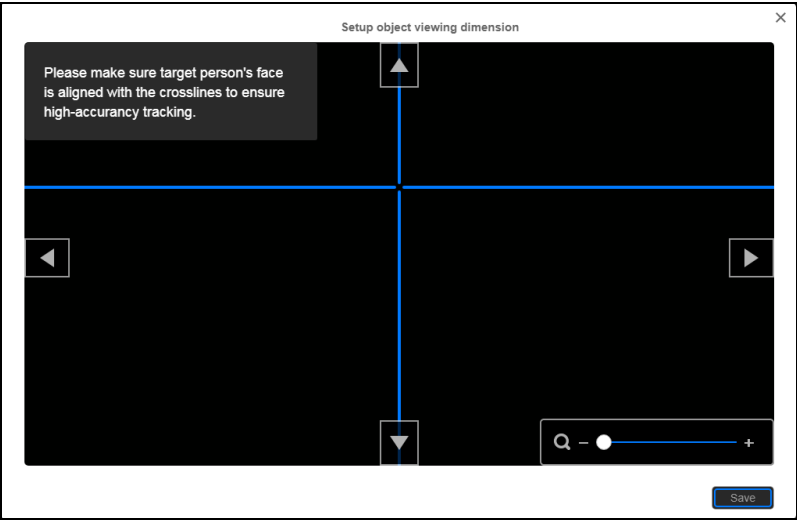
# Setup Object Viewing Dimension

Please make sure the target person's face is aligned with the crosslines to ensure high-accuracy tracking. Use the camera zoom and positioning to get the best coverage. Typically you can just use your thumb size as a good yardstick. You should only have to do this once.



To set the object size for tracking select  > **Tracking setting** > **Setup object viewing dimension** (Also see [Object Viewing Dimension Setting](#) chapter).

Use ▲, ▼, ◀, ▶ and zoom in/out to adjust object size. Then, click “**Save**” to save the setting.



# Tracking Mode Instruction

To view each tracking mode's brief description, feature, and use environment.

Select  > **Tracking Setting** > **Tracking Mode**  to view tracking mode instruction.

Tracking mode instructions			
	Wide area	Stage	Segment
Introduction	Accurately track a chosen target anywhere in a crowd.	Track target in all lighting conditions with high accuracy.	Tracking by segment: stay fixed on one area until target moves to next area.
Features	The person tracking function captures every movement.	Horizontal continuous high-accuracy target tracking.	Track up to 4 fixed locations based on target's position.
Mostly used for	<ul style="list-style-type: none"><li>• Classrooms</li><li>• Presenters moving through a crowd.</li></ul>	<ul style="list-style-type: none"><li>• Stage presentations</li><li>• Stage performances</li><li>• Target projectors behind</li></ul>	<ul style="list-style-type: none"><li>• After school podium.</li><li>• Classroom podium.</li><li>• Multiple panels need to be displayed.</li></ul>



## Wide Area Mode

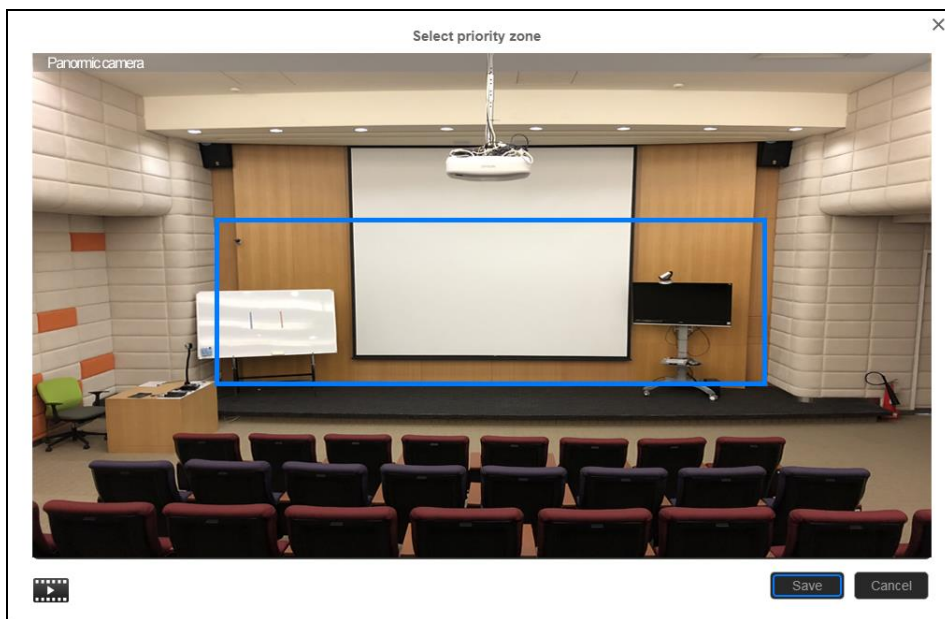
In Wide Area mode, the TR530 / TR320 will start tracking when object enters the priority zone and the face of the object is detected.

### Setup Priority Zone

If the TR530 / TR320 detects motion in the defined zone it will be triggered to start tracking. If a priority zone isn't setup, then, the entire panoramic camera view will be the default active zone.

**[Note]** The screen of priority zone setting is based on the panoramic camera view.



1. Select  > **Tracking setting** > **Wide Area** > **Select priority zone**.
2. An online tutorial will display. User can watch to learn how to setup tracking zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
3. In the Select priority zone screen, drag and select the area that tracking will be triggered once a subject enters the area. To re-select the area, just drag and select another wanted area.
4. Click **"Save"** to save the setting.

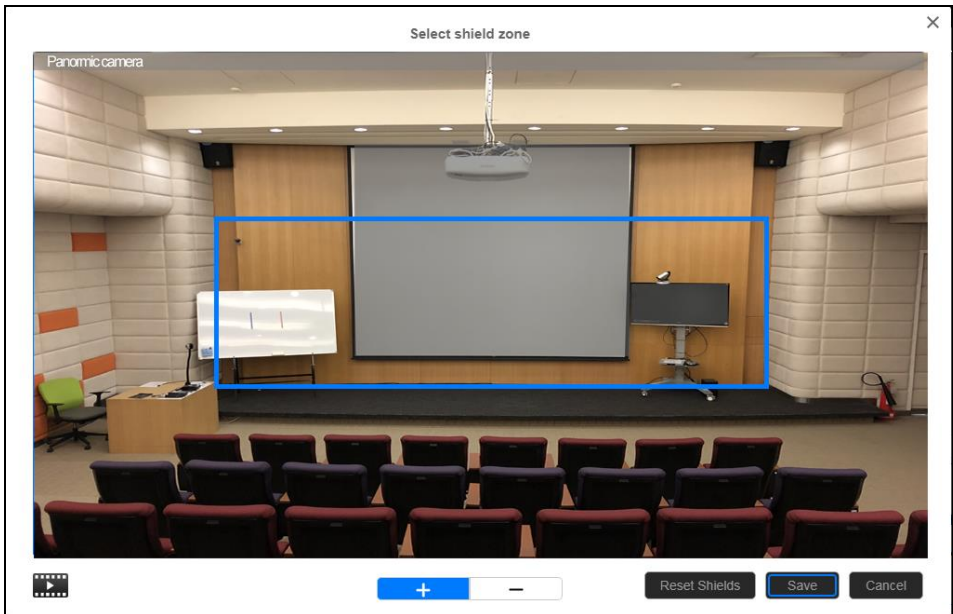


## Setup Shielded Zone

Define the area(s) that you don't want the camera to track. The shielded zone(s) are setup to "mask" out motion in the background, up to 8 shielded zones can be set.

**[Note]** The screen of shielded zone setting is based on panoramic camera view.



1. Select  > **Tracking setting** > **Wide Area** > **Select shielded zone**.
2. An online tutorial will display. User can watch to learn how to setup shielded zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
3. In the Shielded tracking zone screen, click the "+" and select the area(s) that you don't want to track (a gray block will show on the screen). In the example below, you should shield the projector screen and the TV that may influence tracking. In fact, you should shield all areas where you think there might be "motion" interference. To delete the shielded zone area, click "-" and select the shield to delete. Or select **"Reset Shields"** to delete all shields.
4. Select **"Save"** to save the setting.

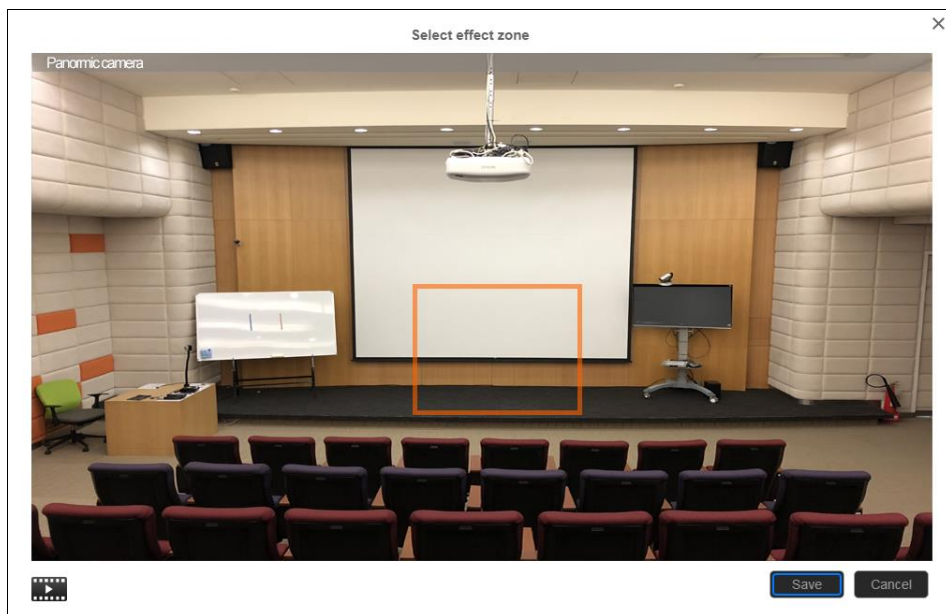


## Setup Multi-people Detection

Define the area as a multiple people detection area. The camera will move to preset 2 and stop tracking the original object until the multi-people detection mode is stopped.

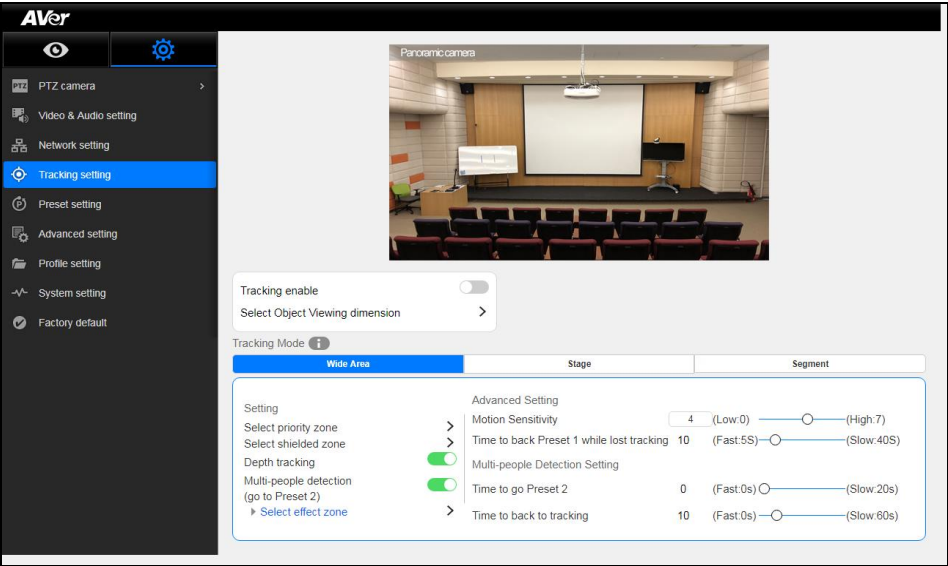
**[Note]** The effective zone setting is based on the panoramic camera view.

1. Select  > **Tracking setting** > **Wide Area** > **Multi-people detection**.
2. Select **"Select effect zone"** to set the multiple people detection area. An online tutorial will display. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
3. In the "Select effect zone" screen, drag and set the area to be the designated multiple people detection area (an orange frame will show on screen). To re-set the area, just drag again. Select **"Save"** to save the setting.





- 4. **Time to go preset 2:** set the time to move the camera to preset 2 after multi-people detection is activated.
- 5. **Time to back to tracking:** set the time period to back to tracking the main presenter after multi-people detection mode is no longer effective.





# Stage Mode

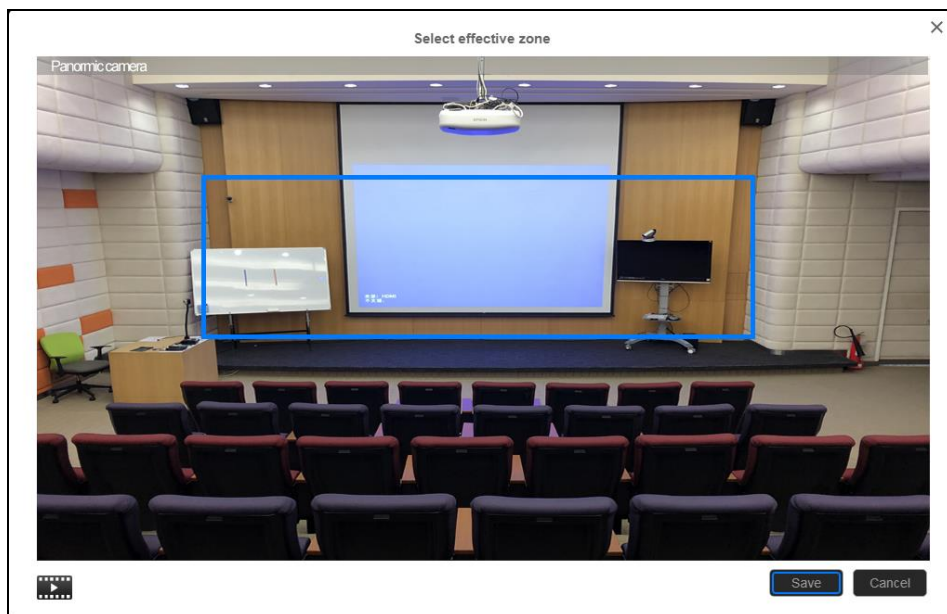
The TR530 / TR320 will start tracking when there is an object moving in the effective zone.

## Setup Effective Zone

If the TR530 / TR320 detects motion in the defined zone tracking will be activated. If the tracking zone isn't setup, then, the entire panoramic camera view will be the default active zone.

**[Note]** The screen of the effective camera zone setting is based on the panoramic camera view.



1. Select  > **Tracking** > **Stage** > **Select effective zone**.
2. An online tutorial will display. User can watch to learn how to setup tracking zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
3. In the Select effective zone screen, drag and select the area that tracking will be triggered once a subject enters the area. To re-select the area, just drag and select another wanted area.
4. Click **"Save"** to save the setting.

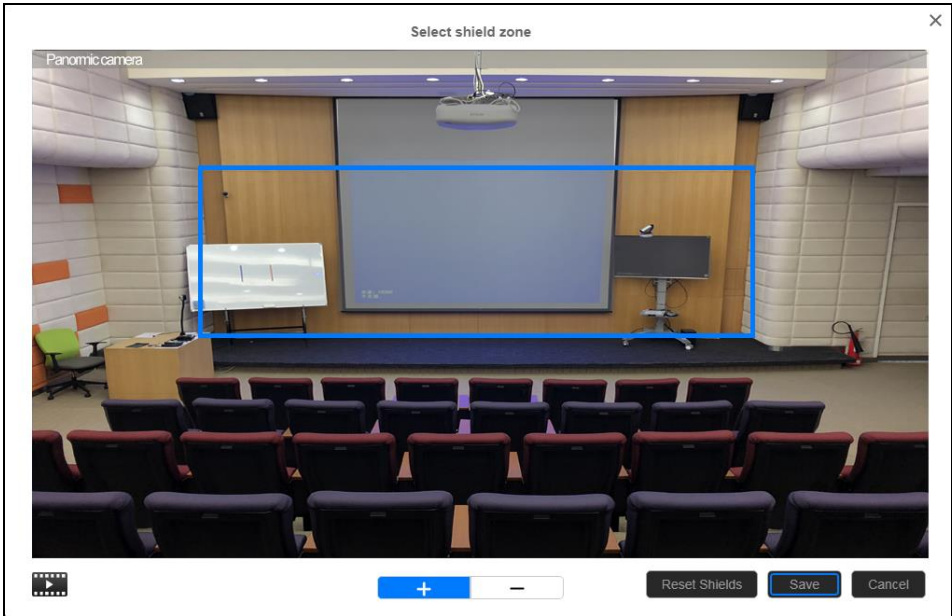


# Setup Shielded Zone

Define the area that user doesn't want camera to track. The shield zone should be within the active zone. 8 shield zones can be set.

**[Note]** The screen of shield zone setting is based on panoramic camera view.



1. Select  > **Tracking setting** > **Stage** > **Select shielded zone**.
2. An online tutorial will display. User can watch to learn how to setup shield zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
3. In the Shielded tracking zone screen, click the “+” and select the area(s) that you don't want to track (a gray block will show on the screen). In the example below, you should shield the projector screen and the TV that may influence tracking. In fact, you should shield all areas where you think there might be “motion” interference. To delete the shielded zone area, click “-” and select the shield to delete. Or select **“Reset Shields”** to delete all shields.
4. Select **“Save”** to save the setting.

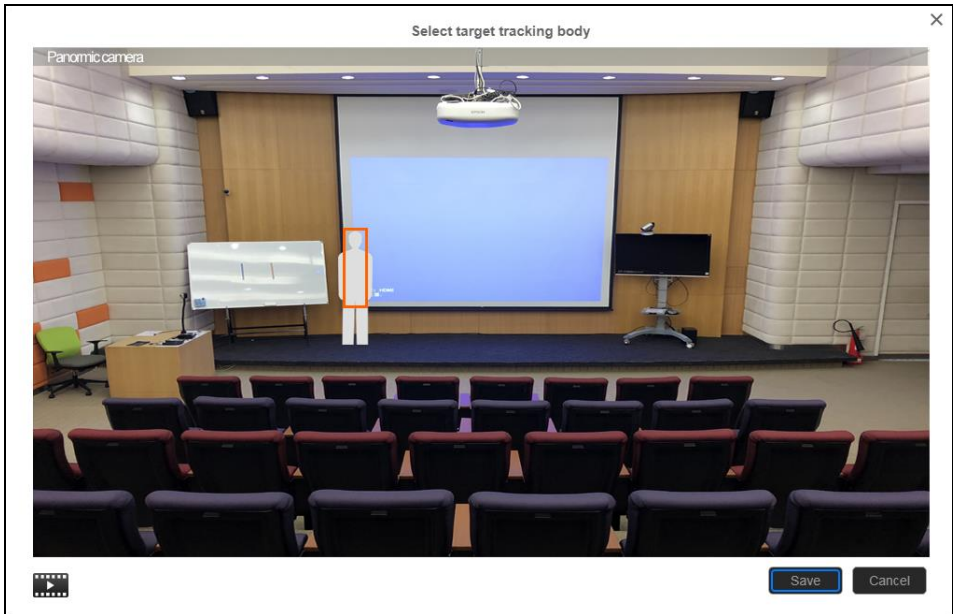


## Setup Target Tracking Body

Define the width of the target that needs to be tracked. 1 target zone can be set.


**[Note]** The screen of the target tracking body is based on the panoramic camera view.

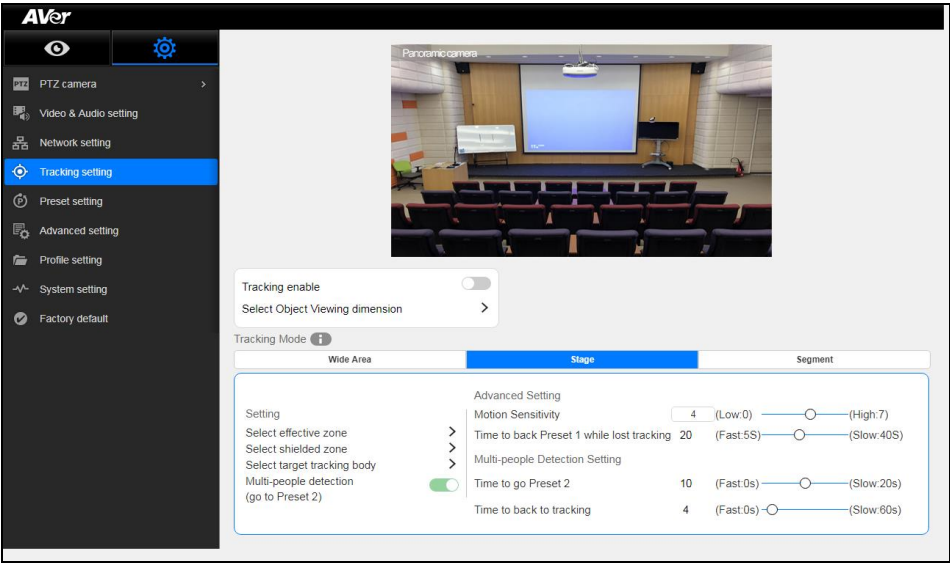
1. Select  > **Tracking setting** > **Stage** > **Select target tracking body**.
2. An online tutorial will display. User can watch to learn how to setup tracking zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
3. In select target tracking body screen, drag and set the width of the object that needs to be tracked (an orange frame will show on the screen). To re-set the width of object, just drag again.
4. Click "**Save**" to save the setting.



# Setup Multi-people Detection

When multiple people detection is activated, the camera will move to preset 2 and stop tracking the original object until the multi-people detection mode is stop.

- 1. Select  > Tracking **setting** > Stage > **Multi-people detection**.
- 2. **Time to go preset 2:** set the time to move the camera to preset 2 after multi-people detection is activated.
- 3. **Time to back to tracking:** set the time period to back to tracking the main presenter after multi-people detection mode is no longer effective.



# Segment Mode

The TR530 / TR320 will start tracking when object is moving between the blocks.

## Setup Effective Zone

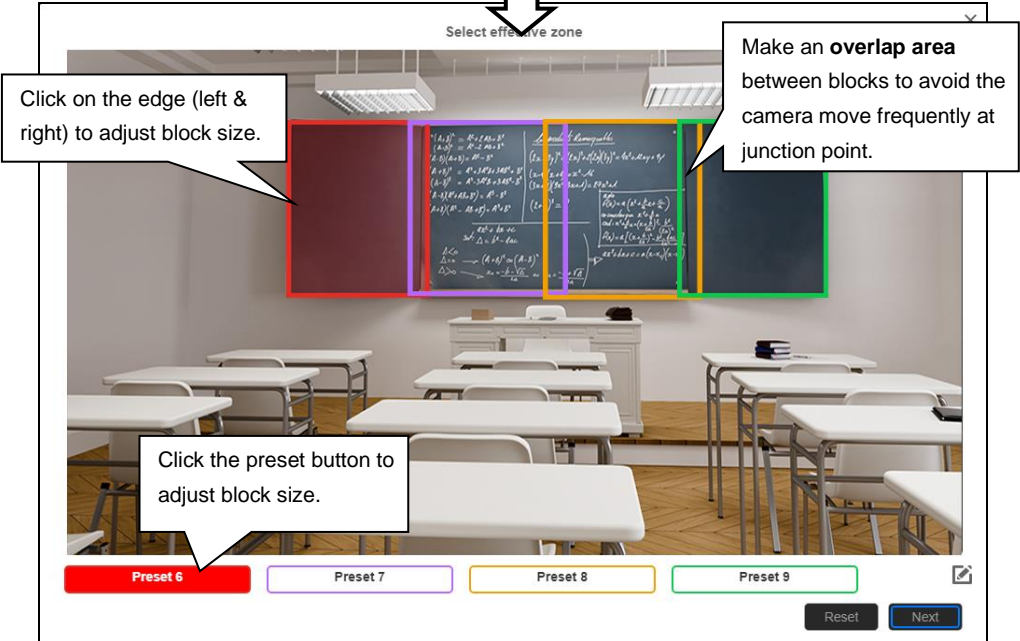
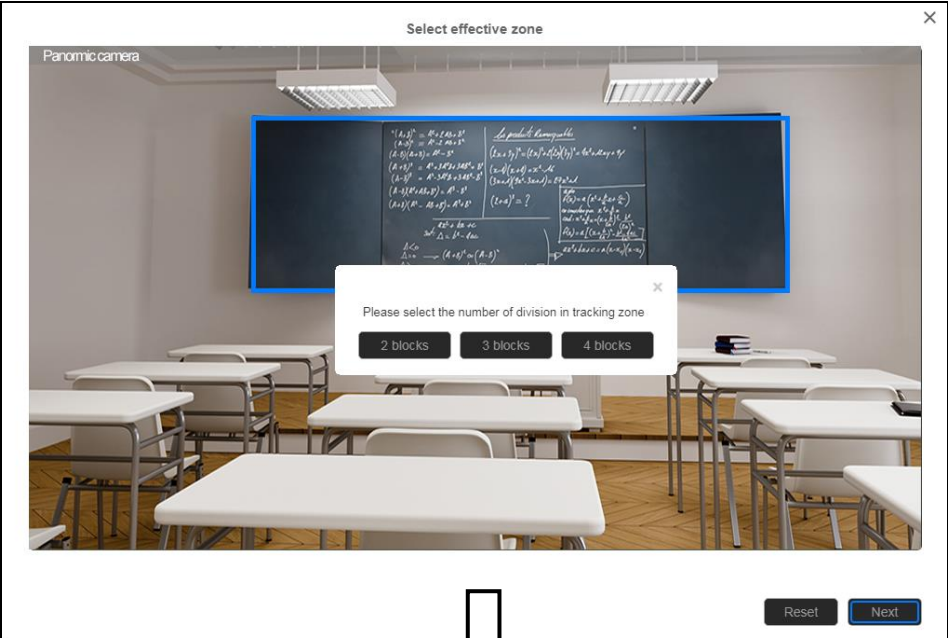
If the TR530 / TR320 detects motions in the defined zone it will be triggered to track. If the effective zone isn't setup, then, all the entire panoramic camera view will be the default active zone. The effective zone can be defined from 2 to 4 blocks.

**[Note]** The size of effective zone setting is based on the panoramic camera view. The Left and Right most edges of the blocks defined will not be able to be adjusted outward, as they are at the outer limits of the "Effective Zone", blue box.

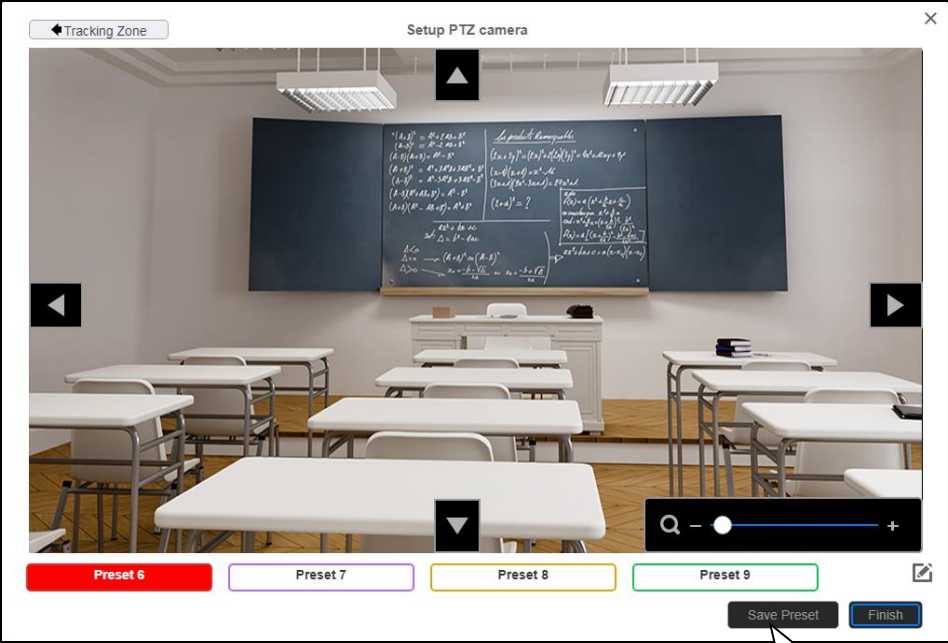
- 1. Select  > **Tracking setting** > **Segment** > **Select effective zone**.
- 2. Drag a tracking area on screen (blue frame). Then, click "Next" button.



3. Select the tracking zone blocks – 2, 3, or 4 blocks. At least 2 blocks must be set.



4. Click **"Next"** to set the position of tracking zone. Click preset button and use ▲,▼,◀,▶, Zoom +/- to adjust to the desire position. Once each preset position is set, click **"Save"** to save the settings.





5. Click **"Finish"** to complete the settings.

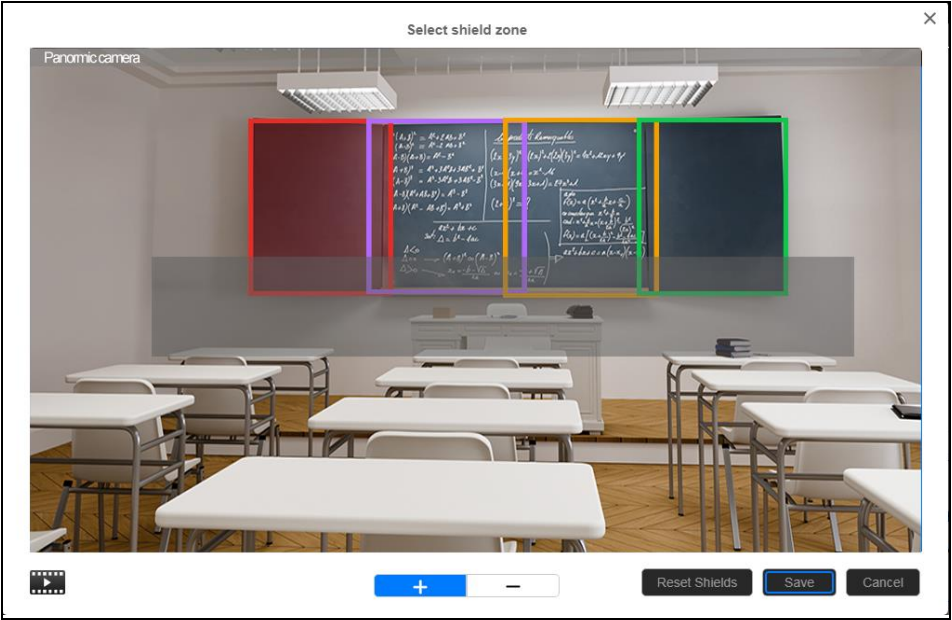


# Setup Shielded Zone

Define the area that the user doesn't want the camera to track. The shielded zone(s) are setup to “mask” out motion in the background, up to 8 shielded zones can be set.

[Note] The screen of shield zone setting is based on panoramic camera view.



- 1. Select  > **Tracking setting** > **Segment** > **Select shielded zone**.
- 2. An online tutorial will display. User can watch to learn how to setup shielded zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
- 3. In the Shielded tracking zone screen, click the “+” and select the area within the tracking zone that don't need to be tracked (a gray block will show on screen). For example: Shield the first row of students. To delete the shield zone area, click “-” and select the shield to delete it. Or select “**Reset Shields**” to delete all shields.
- 4. Select “**Save**” to save the setting.

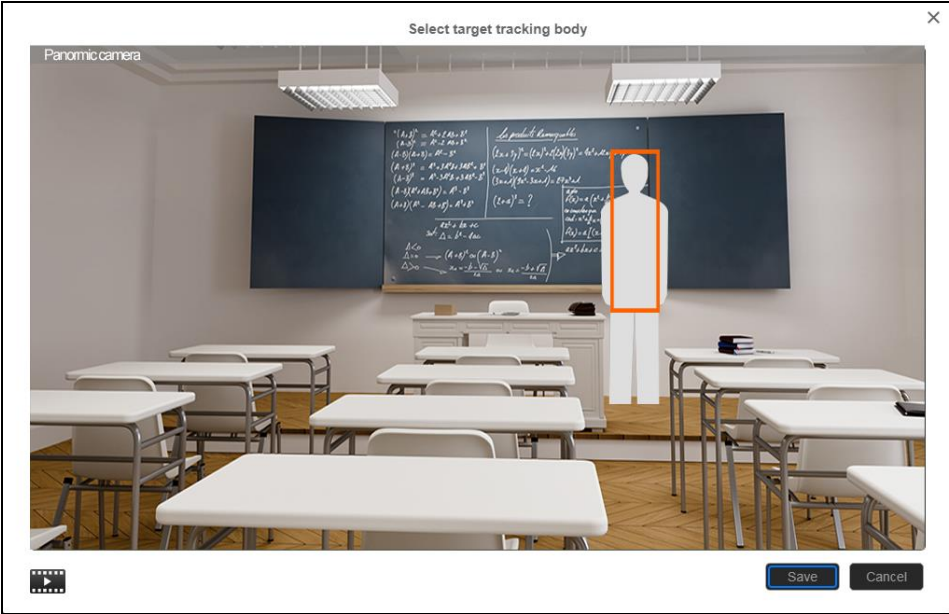


# Setup Target Tracking Body

Define the width of the target that needs to be tracked. 1 target zone can be set.


**[Note]** The screen of target tracking body is based on panoramic camera view.

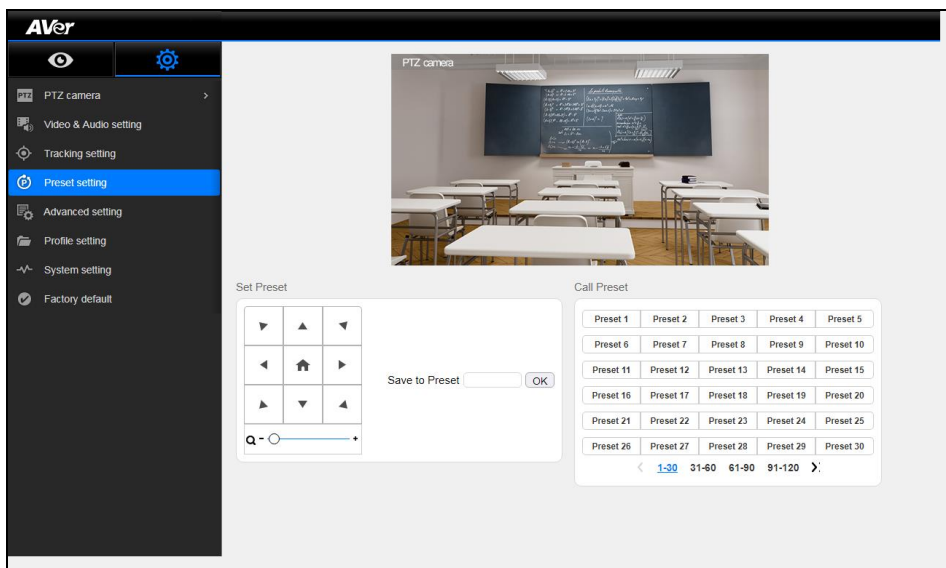
- 1. Select  > **Tracking setting** > **Segment** > **Select target tracking body**.
- 2. An online tutorial will display. User can watch to learn how to setup tracking zone. Click **Skip** to stop tutorial. To watch again, select  to play online tutorial.
- 3. In the select target tracking body screen, drag and set the width of the object that needs to be tracked (an orange frame will show on screen). To re-set the width of the object, just drag again.
- 4. Click **“Save”** to save the setting.




# Preset Setup

Define the specific location to view when select preset number (1~255). **When TR530 / TR320 loses tracking, it will back to the preset 1 position.**

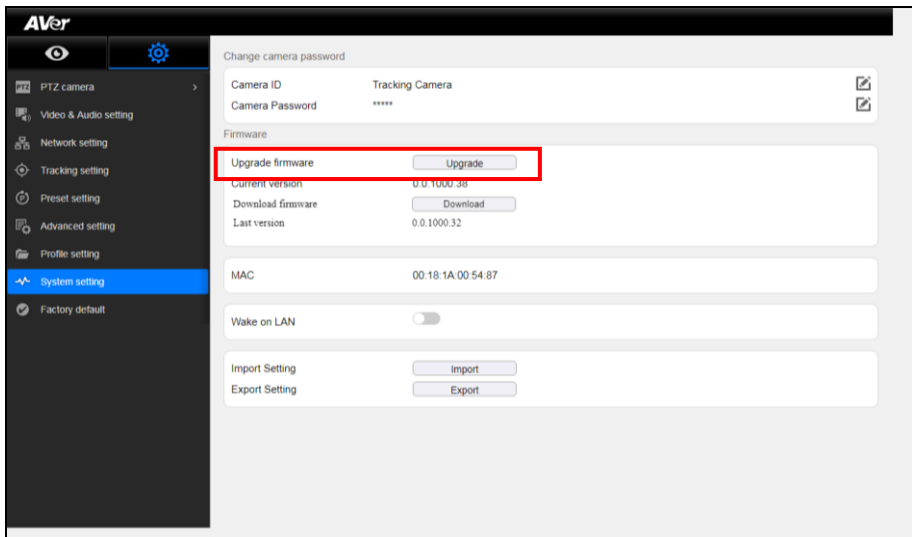
1. Open the browser and enter the IP address of TR530 / TR320 to login.
2. Select  > **Preset Setting**.
3. Use the direction control panel to adjust the TR530 / TR320 to the desired position.
4. Next, select the preset number in “**Save to Preset**” column and click “**Save**” button to save the preset.



5. Select any preset number in the Call Preset section to re-call that preset location immediately.
6. After calling any preset, the tracking feature will be turned off automatically. Remember to **turn on the tracking** manually. Or press  on remote controller.

# Upgrade Firmware

1. Download the newest firmware from <https://www.averusa.com/pro-av/support/>. Once downloaded, “un-zip” the file and use the un-zipped version of the \*.dat file.
2. Connect to the camera through a Chrome or IE-11 browser.
3. Select **System > Firmware > Upgrade firmware > Upgrade**.
4. Select the firmware and select the “**Upload**” button. This entire process takes about 5 mins.
5. After updating, refresh the browser.



## Using RTSP connection to Camera

To use a RTSP player connecting to the camera; please enter the following RTSP URL in your application such as VLC, PotPlayer, or QuickTime.

**PTZ camera:** rtsp:// IP address of TR530 / TR320:554/live\_st1

For example: rtsp://192.168.1.1:554/live\_st1

**Panoramic camera:** rtsp://IP address of TR530 / TR320:8554/live\_st2

For example: rtsp://192.168.1.1:8554/live\_st2


# OSD SETUP

## Before You Begin

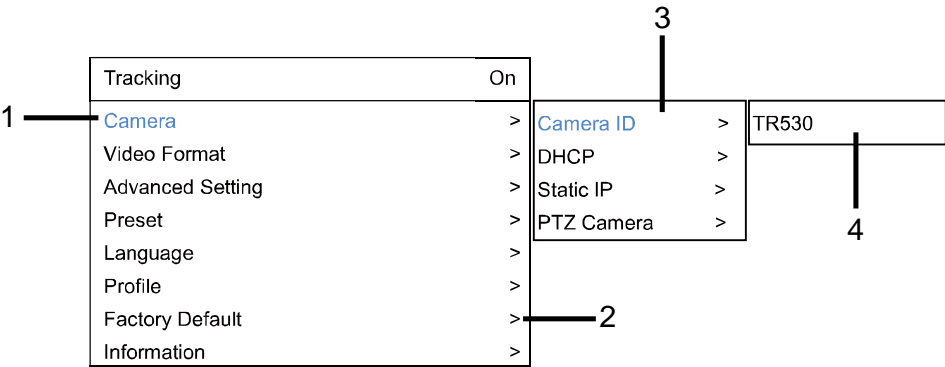
Make sure all connections are securely connected before using the TR530 / TR320.

## First Time Use

### Trigger OSD Menu

Press  button on remote controller to call out the OSD menu. Use ► to enter sub-menu, use ▲ and ▼ to move to the selection and use (↵) to confirm the selection. Press ◀ button to go back to the previous level.

1	Blue text indicates the current selection.
2	">" means has sub-menu or value selection.
3	Sub-menu
4	Column for enter value or value selections.




# Setup IP Address

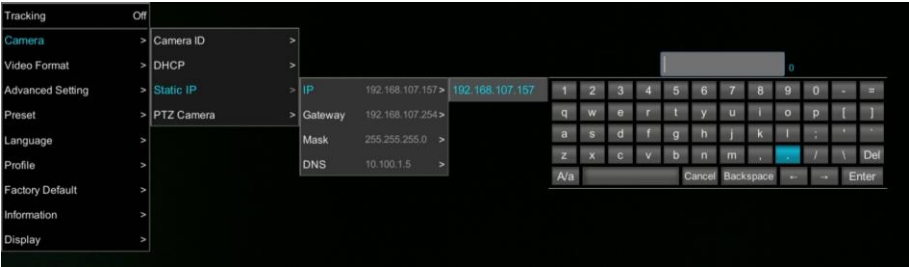
Setup IP address of TR530 / TR320.

There are two ways to setup IP address of TR530 / TR320. Please follow the steps below to setup the IP address.

## ■ Static IP Address


Assign a fixed IP address for TR530 / TR320.

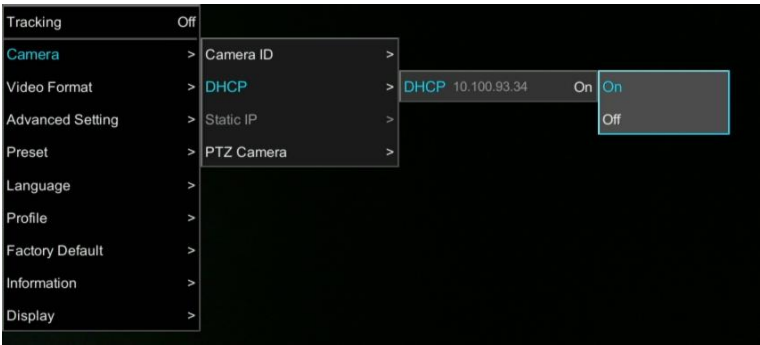
- 4. After starting-up, press  button on remote control to call out OSD menu.
- 5. Turn the DHCP off first. Go to **Camera > DHCP > DHCP > Off** then press ► or enter button to confirm the selection. The menu selection will switch to “**Static IP**” when DHCP off is applied.
- 6. Use ▲, ▼, Enter button, and on-screen keyboard to setup the “**IP**”, “**Gateway**”, “**Mask**” and “**DNS**”.



## ■ Dynamic IP Address(DHCP)

Get IP address from your local DHCP server.

- 4. After starting-up, press  button on remote control to call out OSD menu.
- 5. Use ▲ and ▼ buttons to select the **Camera > DHCP > DHCP > On**, then press ► or enter button to get IP address from local DHCP server.



6. Use ▲ and ▼ buttons go to “**Information**” to check the IP address information.

Tracking	Off	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	
Profile	>	
Factory Default	>	
Information	>	Firmware Version 0.0.1000.38
Display	>	IP Address 10.100.93.34
		MAC 00:18:1A:00:54:87

# OSD Tree Map

## Main

Tracking	On
Camera	>
Video Format	>
Preset	>
Advanced Setting	>
Language	>
Profile	>
Factory Default	>
Information	>

## Tracking

- User can enable or disable auto-tracking.
- TR530 / TR320 will not track an object automatically when the feature is disabled.
- To enable auto-tracking, please select **"On"**.
- To disable auto-tracking, select **"Off"**.

Tracking	On	On
Camera	>	Off
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	
Profile	>	
Factory Default	>	
Information	>	



# Camera

In the section, users can change camera ID, network setting and adjust parameter of camera settings.

Tracking	On	
Camera	>	Camera ID >
Video Format	>	DHCP >
Advanced Setting	>	Static IP >
Preset	>	PTZ Camera >
Language	>	
Profile	>	
Factory Default	>	
Information	>	

## Camera ID

To change camera ID, please select **Camera > Camera ID**.

Tracking	On	
Camera	>	Camera ID > TR530
Video Format	>	DHCP >
Advanced Setting	>	Static IP >
Preset	>	PTZ Camera >
Language	>	
Profile	>	
Factory Default	>	
Information	>	

## DHCP

To enable DHCP, select **Camera > DHCP**.

Tracking	On	
Camera	>	Camera ID >
Video Format	>	DHCP > DHCP10.1.0.1 ON
Advanced Setting	>	Static IP >
Preset	>	PTZ Camera >
Language	>	
Profile	>	
Factory Default	>	
Information	>	

# Static IP

To setup network as a static IP, select **Camera > Static IP** (Please set DHCP off before the Static IP setting)

Tracking	On		
Camera	>	Camera ID	>
Video Format	>	DHCP	>
Advanced Setting	>	Static IP	>
Preset	>	PTZ Camera	>
Language	>		
Profile	>		
Factory Default	>		
Information	>		

IP 10.1.0.1	>
Mask 255.255.0.255	>
Gateway 10.1.0.1	>
DNS	>

**PTZ Camera**

To adjust the parameters of PTZ camera, select **Camera >PTZ Camera**.

Tracking	On	
Camera	>	Camera ID >
Video Format	>	DHCP >
Advanced Setting	>	Static IP >
Preset	>	PTZ Camera >
Language	>	
Profile	>	
Factory Default	>	
Information	>	

Camera Mode	Full Auto	>
	Full Auto	>
	Shutter Priority	>
	Iris Priority	>
	Manual	>
White Balance		>
Shading Correction		>

Pan/Tile Speed	1
Zoom Speed	Low
Digital Zoom Limit	12
PTZ Zoom Focus	Off
Power Up	Home
Frequency	Auto
Contrast	2
Saturation	5
Sharpness	Medium
NosieReduction	Medium

Camera Mode

There are 4 different camera modes, you can select one from **Camera > PTZ Camera > Camera Mode**.

Camera Mode Full Auto >

Full Auto >

Shutter Priority >

Iris Priority >

Manual >

White Balance >

Shading Correction >

Pan/Tile Speed 1

Zoom Speed Low

Digital Zoom Limit 12

PTZ Zoom Focus Off

Power Up Home

Frequency Auto

Contrast 2

Saturation 5

Sharpness Medium

NosieReduction Medium

Full Auto >

Shutter Priority >

Iris Priority >

Manual >

Full Auto >

Shutter Priority >

Iris Priority >

Manual >

Full Auto >

Shutter Priority >

Iris Priority >

Manual >

Slow Shutter Off

Maximum Gain 24dB

Back Light compens Off

Exposure 0

Speed 1/30

Maximum Gain 24dB

Exposure 0

Slow Shutter Off

Iris F6.8

Maximum Gain 24dB

Exposure 0

Maximum Gain 24dB

Speed 1/30

Iris F6.8

# White Balance

To adjust white balance value, select **Camera > PTZ Camera > White Balance**.

Camera Mode	Full Auto	>
	Full Auto	>
	Shutter Priority	>
	Iris Priority	>
	Manual	>
White Balance		>
Shading Correction		>

Mode	Auto
------	------

Auto	
One Push	
Manual	6247

Pan/Tile Speed	1
Zoom Speed	Low
Digital Zoom Limit	12
PTZ Zoom Focus	Off
Power Up	Home
Frequency	Auto
Contrast	2
Saturation	5
Sharpness	Medium
NosieReduction	Medium

## Shading Correction

To adjust shading correction, select **Camera > PTZ Camera > Shading Correction** (The option is for the screen corner shadow fixing.)

Camera Mode	Full Auto	>	
	Full Auto	>	
	Shutter Priority	>	
	Iris Priority	>	
	Manual	>	
White Balance		>	
Shading Correction		>	
Pan/Tile Speed	1		Upper LeftOff
Zoom Speed	Low		Upper RightOff
Digital Zoom Limit	12		Bottom LeftOff
PTZ Zoom Focus	Off		Bottom RightOff
Power Up	Home		
Frequency	Auto		
Contrast	2		
Saturation	5		
Sharpness	Medium		
NosieReduction	Medium		

## Video Format

To adjust Video Format, select **Video Format** from OSD menu.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	3G-SDI1/HDMIAuto
Preset	>	3G-SDI2Auto
Language	>	PIP0
Profile	>	
Factory Default	>	
Information	>	

PIP Mode

Select picture-in-picture(PIP) mode. To turn off the PIP mode, select mode 0.

TrackingOn

Camera>

Video Format>

Advanced Setting>

Preset>

Language>

Profile>

Factory Default>

Information>

3G-SDI1/HDMIAuto

3G-SDI2Auto

PIP0

0Turn off PIP mode

Select a layout

PTZWide

1

PTZWide

3

PTZWide

5

PTZWide

7

WidePTZ

2

WidePTZ

4

WidePTZ

6

WidePTZ

8

# Advanced Setting


To adjust RS232 protocol, address and baud rate, select **Advance Setting** from OSD menu.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	RS232 Protocol      VISCA
Preset	>	Address(ADDRD)      1
Language	>	Baud Rate            9600
Profile	>	VISCA-over-IP        off
Factory Default	>	
Information	>	

## Preset

TR530 / TR320 allows you to set 10 preset locations via remote controller.

■ **To set up preset point:**


1. Enter OSD and turn off the tracking function.
2. Move camera to the preferred location and zoom distance.
3. Press  bottom > **Preset** > **Set** and use arrow key to assign a preset number and press enter button on remote controller.

**[Tip]** Shortcut of setting a preset location as following:

Hold on the “**P**” button until the message shows up. Then, press number you want to set, ex: 1 and press enter.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	Set                    1
Language	>	Call                   1
Profile	>	
Factory Default	>	
Information	>	

■ **To call a preset location:**

Press  bottom > **Preset** > **call** and use arrow key to select which preset number you would like to recall -> press enter button on remote controller.

**[Tip]** Shortcut of calling a preset location: press “**P**” > press number you want to recall, ex: 1.



# Language

To change language, go to **OSD menu > Language**.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	English
Profile	>	繁體中文
Factory Default	>	簡體中文
Information	>	日本語
		Deutsch
		Francais
		Espanol
		한국어
		Vietnamese

# Profile

TR530 / TR320 allows you to save 5 profiles.

To set the profile, go to OSD menu > **Set** and use arrow key to assign a number and press enter button.

To call the profile, go to OSD menu > **Apply** and use arrow key to call an assigned number and press enter button.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	
Profile	>	Set default
Factory Default	>	Apply default
Information	>	

# Factory Default

To reset the TR530 / TR320 to default setting, go to OSD menu > **Factory Default** > **Yes** and press enter button.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	
Profile	>	
Factory Default	>	
Information	>	

Yes

No

# Information

To check out information on the TR530 / TR320, ex: FW version. Go to OSD menu > **Information**.

Tracking	On	
Camera	>	
Video Format	>	
Advanced Setting	>	
Preset	>	
Language	>	
Profile	>	
Factory Default	>	
Information	>	


Firmware Version0.0.0002.12

IP Address10.1.0.1

MACFB:5F:4B:61:1F:4F

# Hot Key

Press certain button on remote controller to perform hot key function.

Button	Action	Function
	Press and hold(3secs)	Power on/off camera. <b>[Note]</b> Only support at TR530 / TR320 FW version 0.0.1000.08 and above.
3	Press three times(333)	Enable/Disable tracking function When the hot key takes effect, you will see “tracking on” or “tracking off” on the right bottom side.
6	Press six times(666666)	Enable/Disable AVer Logo When the hot key takes effect, you will see “AVer” logo on the right bottom side.
7	Press seven times(7777777)	Show the tracking indicator When the hot key takes effect, you will see the tracking indicator on the target face. This mode only works in PIP Mode 2.
8	Press eight times(88888888)	Set TR530 / TR320 IP address as default IP(192.168.1.168.)
9	Press nine times(999999999)	Password Reset mechanism: When the hot key takes effect, the password of entering Web UI will go back the default “admin”.

# FAQ

---

## **1. How to define the zoom level of tracking target?**

It's determined by Setup Object Viewing Dimension. You should stand on the assigned location as a proportional scale and zoom in/out to the proportion that you want. The following tracking will be based on this proportion.

## **2. How preset 1 has influence in the tracking settings?**

When tracking cam loses the target, the position camera will go back to preset 1.

## **3. How does tracking work in Wide Area mode?**

When a person enters the priority zone, the PTZ camera will move to the position of the object and perform face detection. After the face is detected, the PTZ camera will start following the person.

## **4. How does tracking work in Segment mode?**

The tracking operation only works inside the effective zone. When the object is outside of the effective zone, the camera will stop tracking the object.

## **5. Will tracking be lost when we use the TR530 / TR320 in which the projector is turned on in the background?**

Yes, it might happen in "Wide Area mode". But we suggest to use "Stage mode" when the projector is turned on. Stage mode can be used in any lighting conditions.

## **6. What is the definition of the HOME position?**

Home is the default position after the camera boots up. Users can define the position after the camera boots up by going to: WebUI PTZ > PTZ > power up ACT.

## **7. Are Presets 2 ~ 9 used for anything related to tracking?**

If you turn off tracking, the TR530 / TR320 becomes a regular PTZ camera. User can manipulate it to assign position via center control system command. Presets 6, 7, 8 and 9 are used for Segment Mode Tracking.

## **8. This camera supports several profiles; does each profile have different PRESETS?**

Each profile has its own preset definition.

## **9. If we want to stop tracking and to focus on a specific location, what should I do?**

Press "P" and the preset number. The camera will go to the assigned location.

## **10. In Wide area mode, I already masked the areas that might have an item showing a photo of a human being, but why is the camera still going to these areas?**

The shielding zone is only for motion shielding. In a complicated environment, we suggest using Stage Mode to overcome this situation.

**11. Can I install the camera inverted from the ceiling?**

No, the TR530/320 camera must be installed vertically, due mainly because of the dual camera design. AVer does sell a specially made mount for this camera for either ceiling or wall mounted options.

**12. Does the TR530/320 camera support PoE or PoE+?**

No, neither camera supports PoE/PoE+, the included camera power supply (12vDC) must be used.