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WFH-KIT

Work-from-Home Kit : Auto Framing 4K WebCam & Smart Docking Speakerphone

USER MANUAL

December 28, 2022



HT-WebCam-4K-AI
Auto Framing 4K WebCam

HT-Satellite-Dock
Smart Docking Speakerphone



Important Safety Instructions



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space. Ensure the unit is well ventilated.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



5. Do not place sources of naked flames, such as lighted candles, on the unit.



6. Clean this apparatus only with dry cloth.



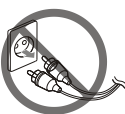
7. Unplug this apparatus during lightning storms or when unused for long periods of time.



8. Protect the power cord from being walked on or pinched particularly at plugs.



9. Only use attachments / accessories specified by the manufacturer.



10. Refer all servicing to qualified service personnel.

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Introduction

OVERVIEW

The Work-from-Home Kit includes the HT-WEBCAM-4K-AI and the HT-SATELLITE-DOCK.

The HT-WEBCAM-4K-AI camera is a 4K ultra-HD USB webcam with high quality video at 30fps. The lens is an ultra-wide angle lens with auto color-correction and white balance to help improve the image in dimly lit areas. The AI technology includes the ability to turn on auto framing or presenter tracking along with microphone noise reduction.

The HT-SATELLITE-DOCK is a smart docking station with built-in speakerphone. The docking station supports up to two USB 3.2 devices such as the HT-WebCam-4K-AI camera as well as a monitor using HDMI, and can charge most laptops using a single USB 3.0 Type-C cable. And, with four microphone elements the omnidirectional speakerphone can clearly pick up 360° audio up to 5 meters (16.4ft) away. The speakerphone also includes AEC (automatic noise cancellation) and noise reduction to reduce echo to the far end and local background noise.

Both are fully compatible with most operating systems, including Windows 7/8/10/11, macOS, Android, Linus and Chrome OS.

FEATURES

HT-WEBCAM-4K-AI

- Video resolution up to 4K@30fps
- 106° ultra wide angle lens
- Advanced CMOS image sensor provides crystal-clear video
- ePTZ for digital pan, tilt, and zoom up to 8x
- Compatible with USB 3.0 and USB 2.0
- AI technology providing auto framing and presenter tracking
- WebCam Manager app provides for AI control, ePTZ, and image settings
- The included privacy shutter cap provides privacy when not in use
- Multiple easy mounting options - setting it on the laptop's monitor or installing it on a tripod
- Plug-and-play – no driver installation required – and compatible with Google Meet, Microsoft Teams, ZOOM, and other soft codecs

HT-SATELLITE-DOCK

- Four built-in omnidirectional microphone elements providing 360° up to 5 meters away
- Audio digital signal processing with AEC (acoustic echo cancellation) and noise reduction
- HDMI 4K@60Hz UHD video output
- Two USB 3.2 10Gbps ports to connect the HT-WebCam-4K-AI
- Supports laptop charging up to 85W (dock requires dedicated local charging, not included)
- Plug-and-play – no driver installation required – and compatible with Google Meet, Microsoft Teams, ZOOM, and other soft codecs

Package Contents

- 1 x HT-WebCam-4K-AI camera with privacy cover
- 1 x HT-Satellite-DOCK speakerphone
- 1 x USB 3.0 Type-C to Type-A cable, 1.5m (4.9ft)
- 1 x USB 3.0 Type-C to Type-C cable, 0.7m (2.3ft)

Product Images with Views

HT-WEBCAM-4K-AI

Front



Rear



Angle



HT-SATELLITE-DOCK

Front

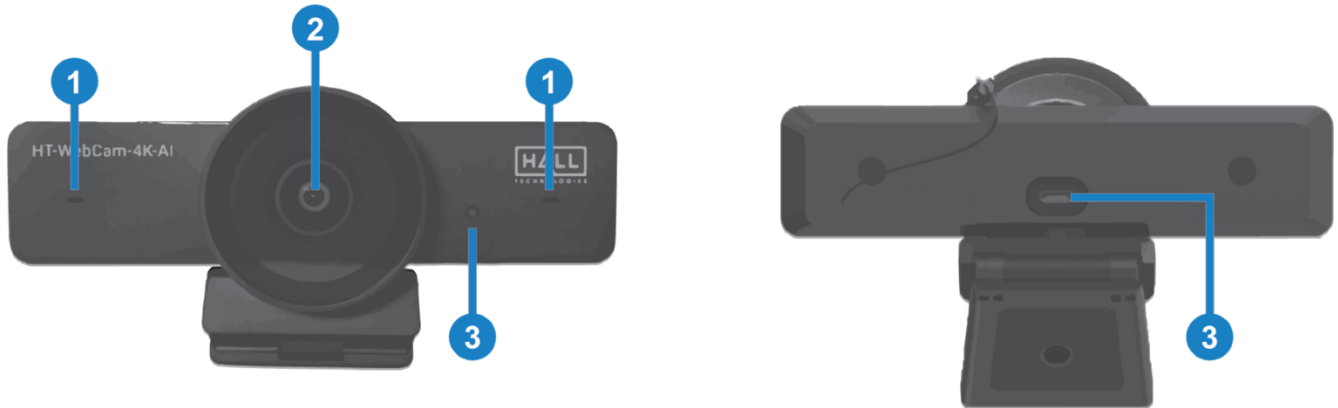


Top



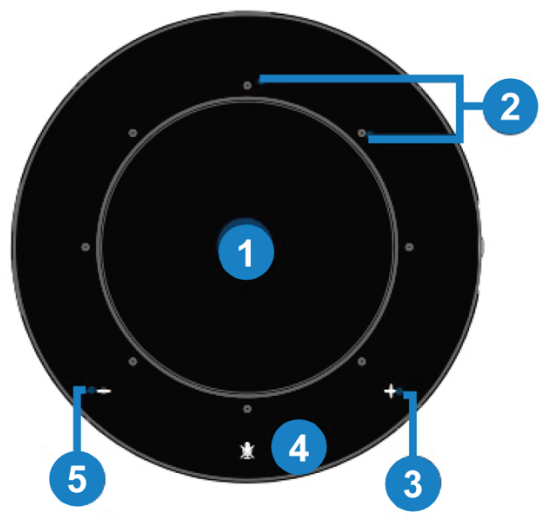
Connectors & Indicators

HT-WEBCAM-4K-AI



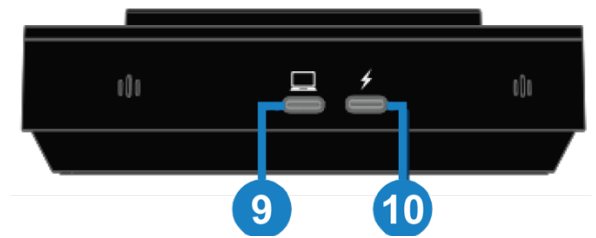
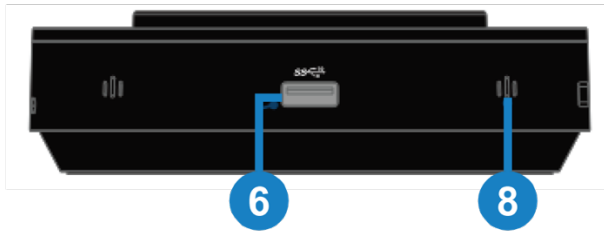
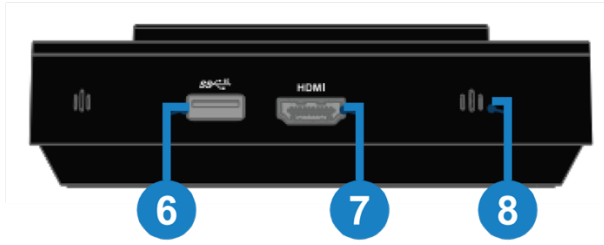
No.	Name	Description
1	Microphones	Omnidirectional microphones with a pickup distance up to 3m (approx. 10ft) NOTE: these microphones are disabled by default but can be enabled using the WebCam Manager software.
2	Camera Lens	Auto Framing with 106° wide FoV lens
3	LED	Solid green LED when the camera is on. NOTE: this LED does not illuminate until an application (i.e. camera, Google Meet, Microsoft Teams, Zoom, etc.) is using the camera.
4	USB 3.0	USB 3.0 Type-C output connector

HT-SATELLITE-DOCK – TOP VIEW



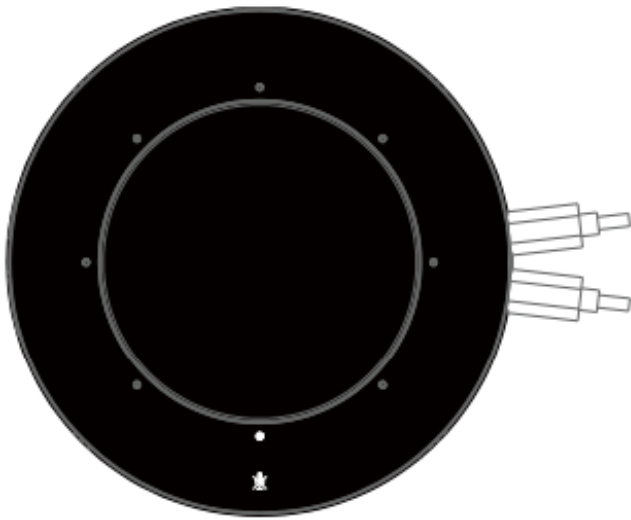
No.	Name	Description
1	Loudspeaker	Outputs audio from the connected laptop
2	LEDs	LEDs illuminate depending on the button presses
3	Volume +	Press button: the volume increases one step at a time. Hold button: the volume increases continuously. The level of the audio is shown with the LEDs, increasing clockwise and decreasing counterclockwise.
4	Mute/Unmute	Press to mute/unmute the microphones. When muted all LEDs turn red.
5	Volume -	Press button: the volume decreases one step at a time. Hold button: the volume decreases continuously. The level of the audio is shown with the LEDs, increasing clockwise and decreasing counterclockwise.

HT-SATELLITE-DOCK – SIDE VIEW

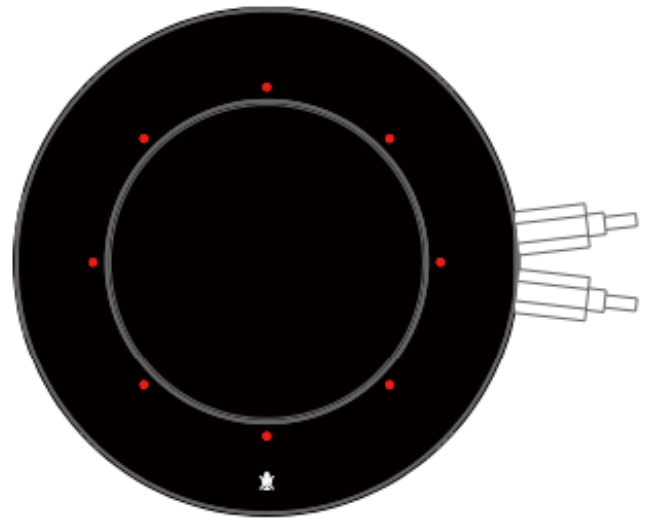


6	USB-A	USB 3.0 for connecting with peripheral USB devices, such as the HT-WebCam-4K-AI
7	HDMI	HDMI 2.0 output for connecting into a display
8	Microphone	4 x Omnidirectional mics array for picking up sound. The LEDs turn blue when picking up audio through the respective microphone.
9	USB-C (laptop)	USB Type-C for connecting to a laptop
10	USB-C (Power)	USB Type-C for connecting to a power adapter or a display NOTE: Power adapter not needed if there is not a need to charge the laptop from the HT-Satellite-DOCK. (power adapter sold separately)

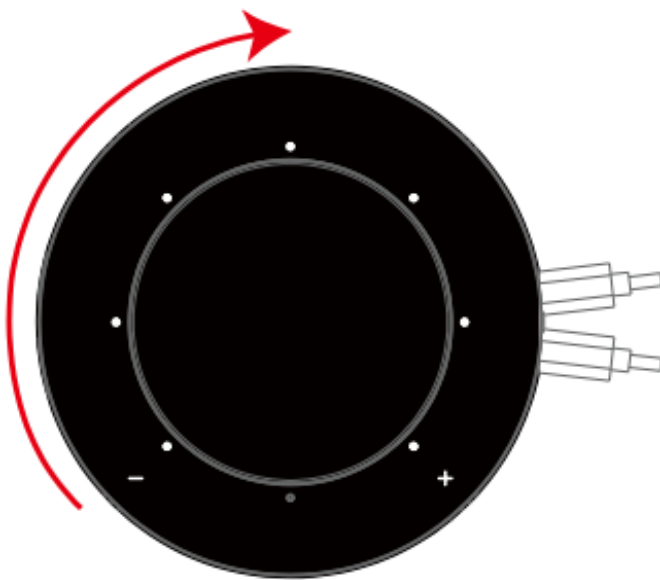
LED INDICATOR STATUS



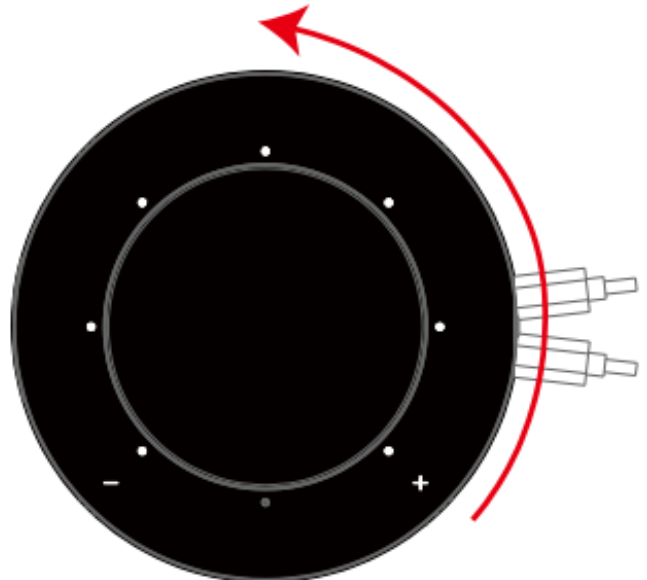
Unmute



Mute



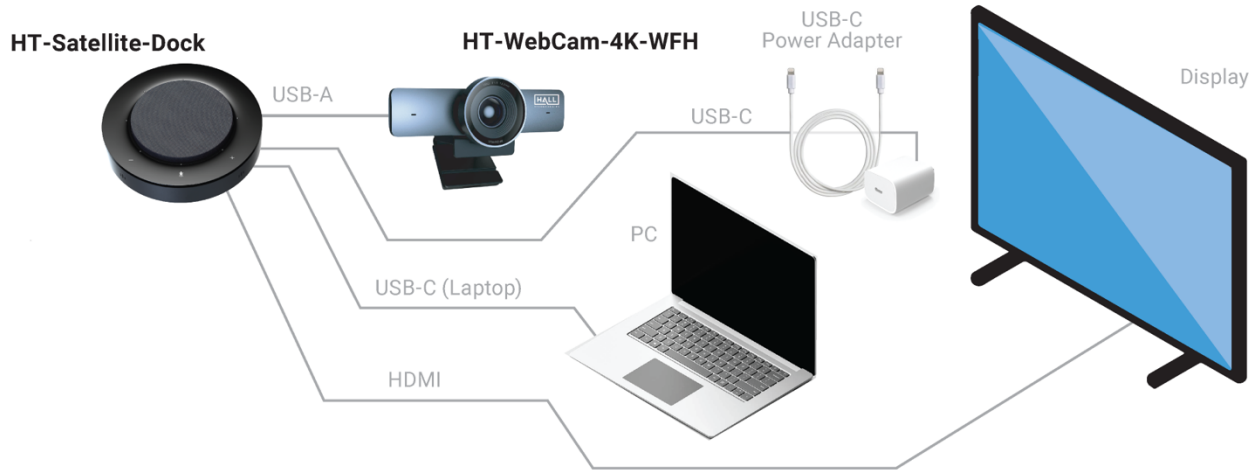
Volume +



Volume -

Applications

APPLICATION 1: OFFICE SETUP



This is the most advanced setup for fully taking advantage of the features of the docking station. Only one USB-C cable is needed between the laptop and the docking station which will provide video out to the display, video in from the camera, microphones in from the dock, audio out to the dock speaker, and power to charge the laptop.

1. Step One

Connect the included USB Type-C to Type-A cable to from the HT-WebCam-4K-AI (Type-C) to the HT-Satellite-Dock (Type-A).

2. Step Two

Connect the included USB Type-C to Type-C cable from the HT-Satellite-Dock to the laptop

3. Step Three

Connect an HDMI cable from the HDMI output on the HT-Satellite-Dock to the HDMI input on the display (HDMI cable not included)

4. Step Four

Connect a USB-C power adapter (not included)

APPLICATION 2: PERSONAL SETUP

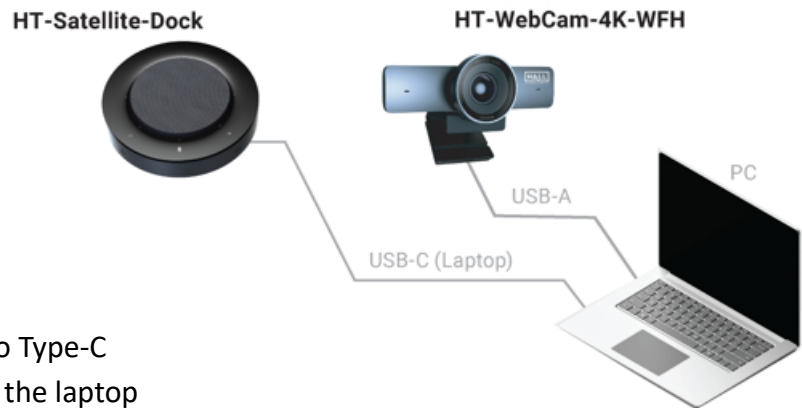
This is the most basic setup for a quick plug-and-play connection. This application does not take advantage of the features of the dock and takes up two USB ports on the laptop.

1. Step One

Connect the included USB Type-C to Type-A cable to from the HT-WebCam-4K-AI (Type-C) to the laptop (Type-A).

2. Step Two

Connect the included USB Type-C to Type-C cable from the HT-Satellite-Dock to the laptop



Setup

INSTALLATION ON A MONITOR

1. Step One

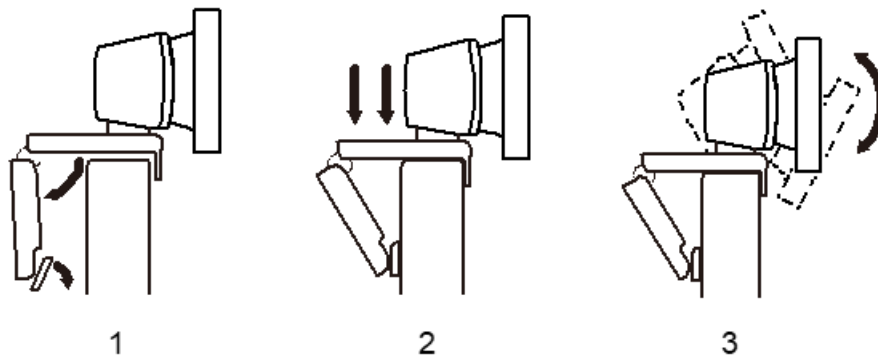
Place the webcam on a computer, laptop or monitor at a position or angle you desire.

2. Step Two

Adjust the webcam to make sure the foot on the universal mounting clip is flush with the back of the device

3. Step Three

Manually adjust the webcam up/down to the best position to frame yourself.



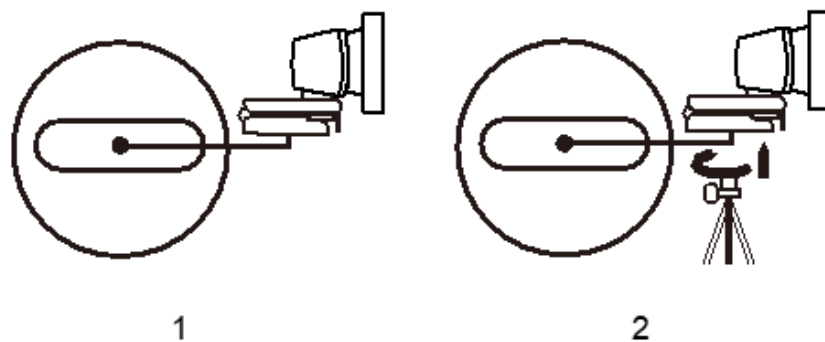
INSTALLATION ON A TRIPOD

1. Step One

Locate the M12 tripod thread on the bottom of the webcam

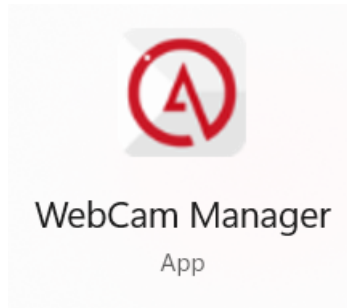
2. Step Two

Secure the webcam on the tripod by twisting it into the M12 thread

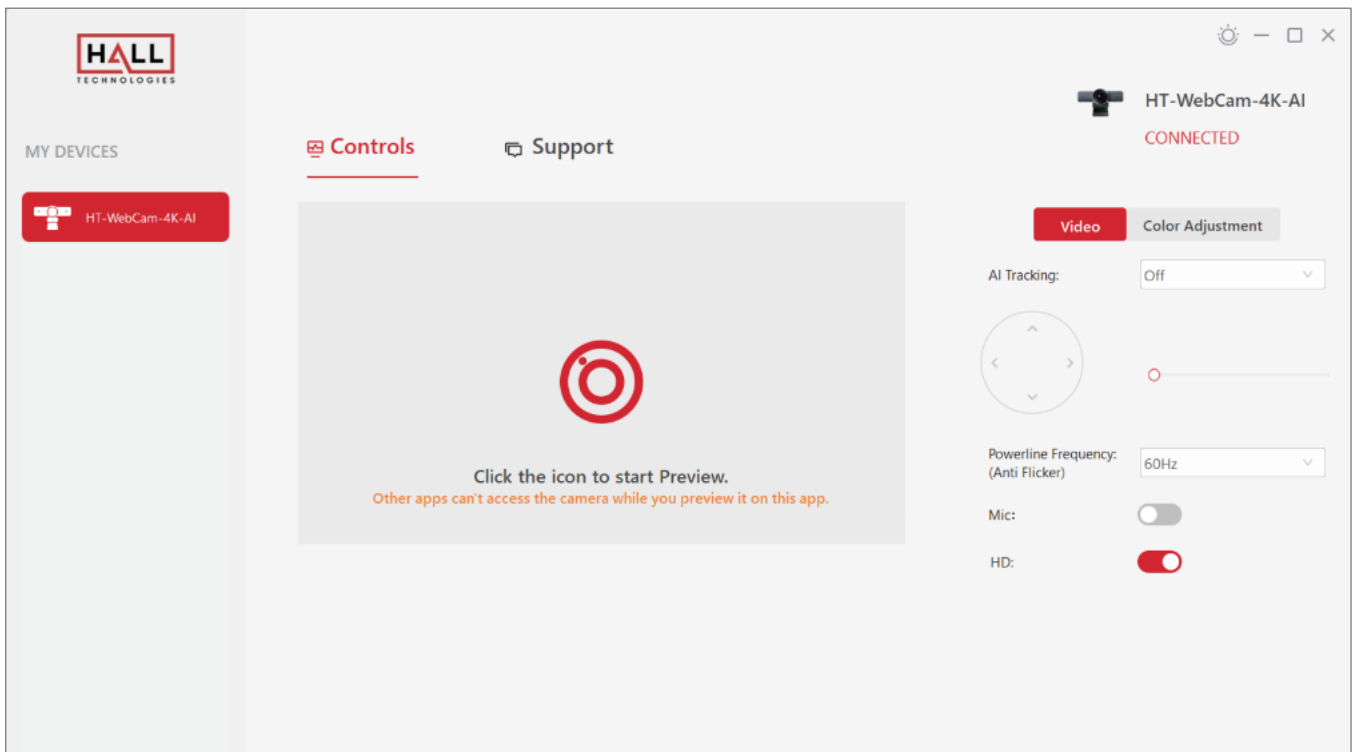


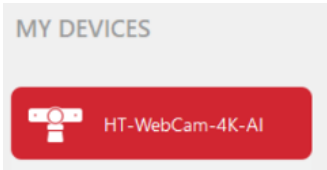
WebCam Manager Software


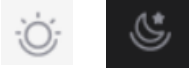
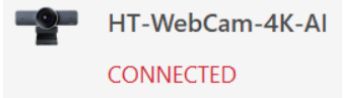
To access all available settings of the HT-WEBCAM-4K-AI camera, download and install the WebCam Manager application.



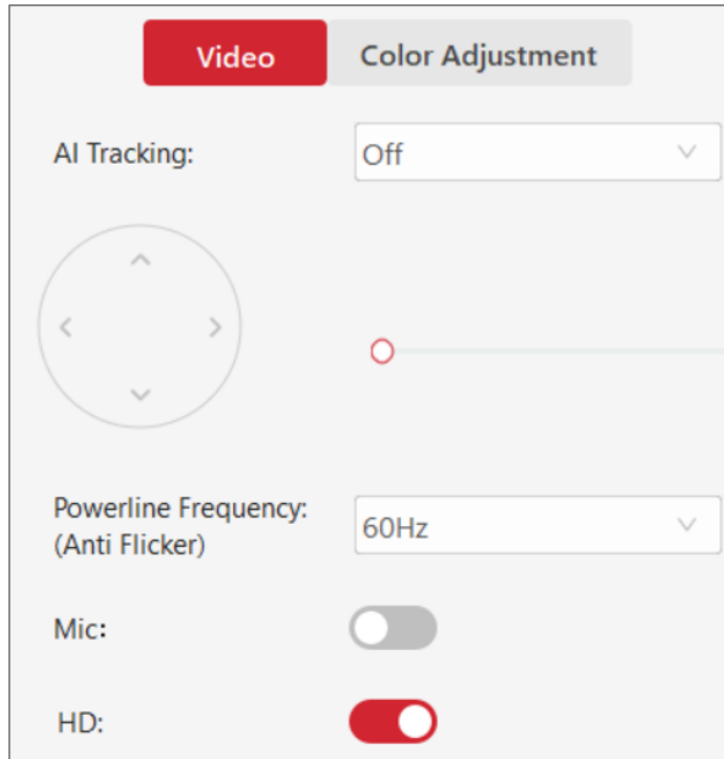
MAIN PAGE - CONTROLS

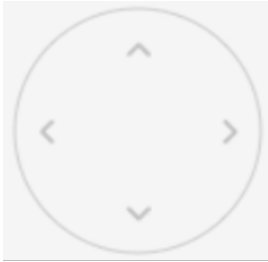
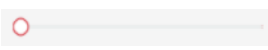


UI Element	Description
	Lists all connected WebCams.

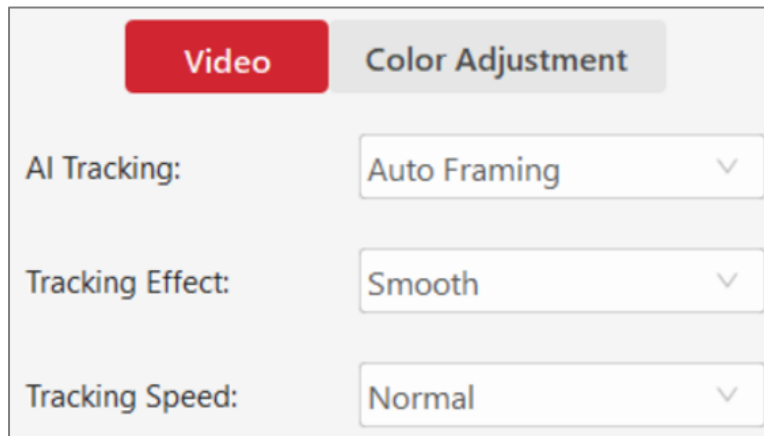
UI Element	Description
	<p>Click this icon in the middle of the screen to see a preview of the camera.</p> <p>NOTE: only one application at a time can view the camera's video. If the camera is not viewable in this window check to see that the camera isn't being used in another application.</p>
	<p>Changes the application from light mode to dark mode and vice versa.</p>
	<p>Shows the camera is connected.</p>

AI TRACKING: OFF



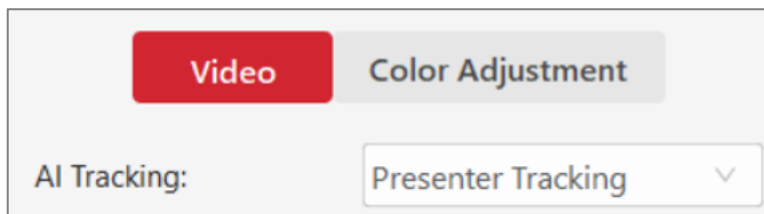
UI Element	Description
	Controls the ePT portion of the ePTZ camera. Arrows up/down: tilts the camera up or down Arrows left/right: pans the camera left or right
	Controls the eZ portion of the ePTZ camera. Sliding the slider to the right zooms the camera in; sliding back to the left zooms the camera back out.
Powerline Frequency	To prevent flicker, match the camera's frequency with the electrical frequency of the environment. 50Hz: Africa, Asia, Australia, Europe, South America (mix) 60Hz: North America, Central America, South America (mix)
Mic	Turns on/off camera's built-in microphones. Note: Default is set to off.
HD	Maximizes the resolution of the camera if enabled; compresses the signal to a non-HD resolution when disabled. Note: Default is set to HD.

AI TRACKING: AUTO FRAMING



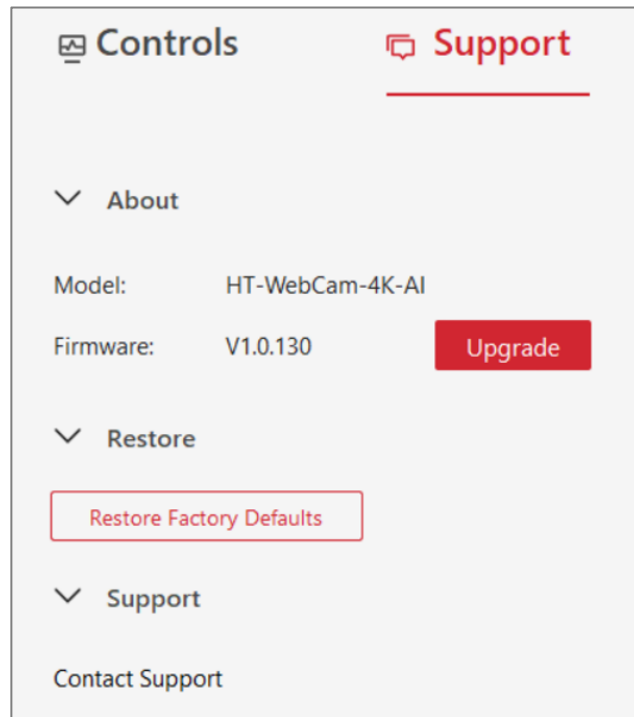
UI Element	Description
Auto Framing	With Auto Framing enabled, the camera will automatically frame all participants in the view of the camera.
Tracking Effect	Sets the motion of the tracking effect: smooth or immediate.
Tracking Speed	Sets the speed of the tracking: slow, medium, or fast. Note: tracking speed cannot be set if the tracking effect is set to immediate.

AI TRACKING: PRESENTER TRACKING



UI Element	Description
Presenter Tracking	With Presenter Tracking enabled, the camera's view will automatically track a single person (presenter).

SUPPORT



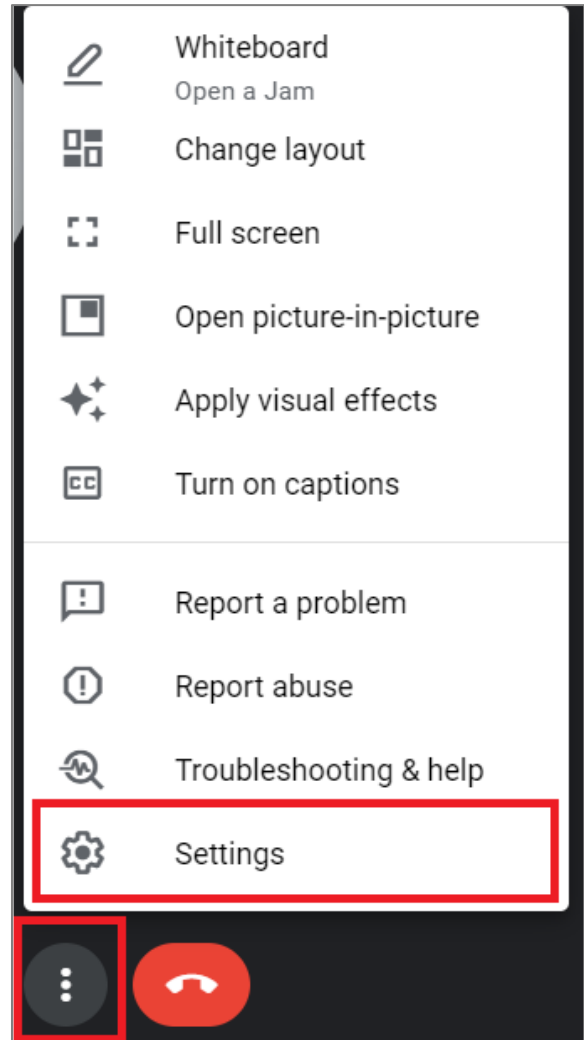
UI Element	Description
About	Gives information about the model of the camera and the version of the firmware.
Upgrade	To upgrade the firmware, click on "Upgrade" and select the .zip file to be loaded.
Restore	Restores the camera to the factory defaults.
Support	Clicking on the "Contact Support" will link to Hall Technologies' support page.

Soft Codec Support

The following are instructions to utilizing the HT-WEBCAM-4K-AI camera and HT-SATELLITE-DOCK in the Google Meet, Microsoft Teams, and Zoom soft codec applications. The HT-WEBCAM-4K-AI and HT-SATELLITE-DOCK are not limited to these three. *(For soft codec applications outside of these three please refer to their user manual.)*

GOOGLE MEET

To use the devices in Google Meet, open “More Options” and then click on “Settings.” In the video settings, select the “HT-WEBCAM-4K-AI” for the camera and in the audio settings select “HT-SATELLITE-DOCK” for both microphone and speaker.



Settings

- Audio
- Video**
- General
- Captions

Camera

HT-WebCam-4K-AI (1d6b:ff01) ▼

Adjust video lighting

Makes it easier to see you against a bright background

Send resolution (maximum)

Auto ▼

Receive resolution (maximum)

Auto ▼

Settings

- Audio**
- Video
- General
- Captions

Microphone

Microphone (HT-Satellite-DOCK) (1d... ▼

Push to talk

Press and hold spacebar to unmute your mic ?

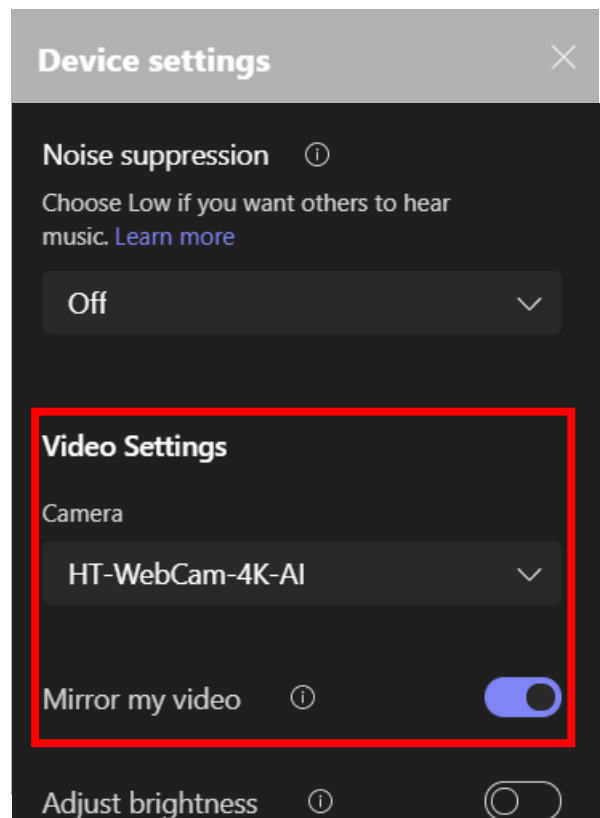
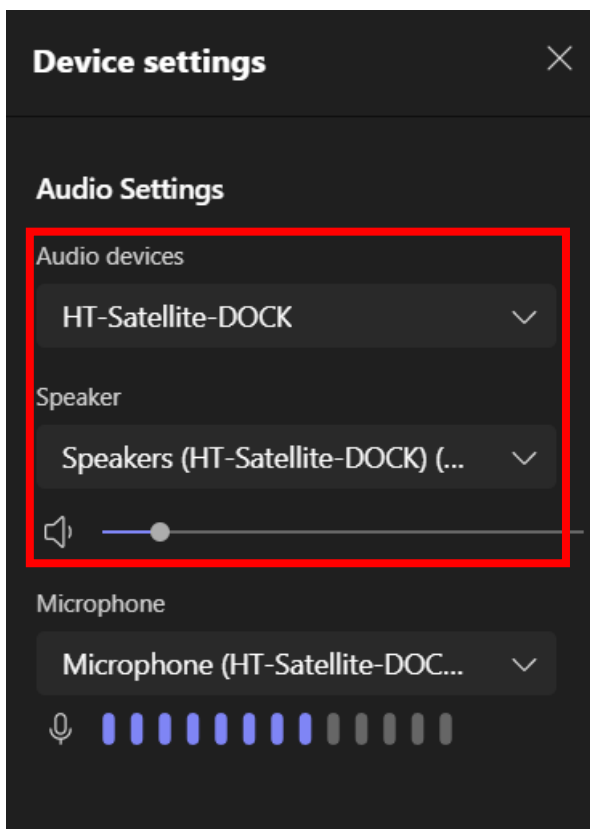
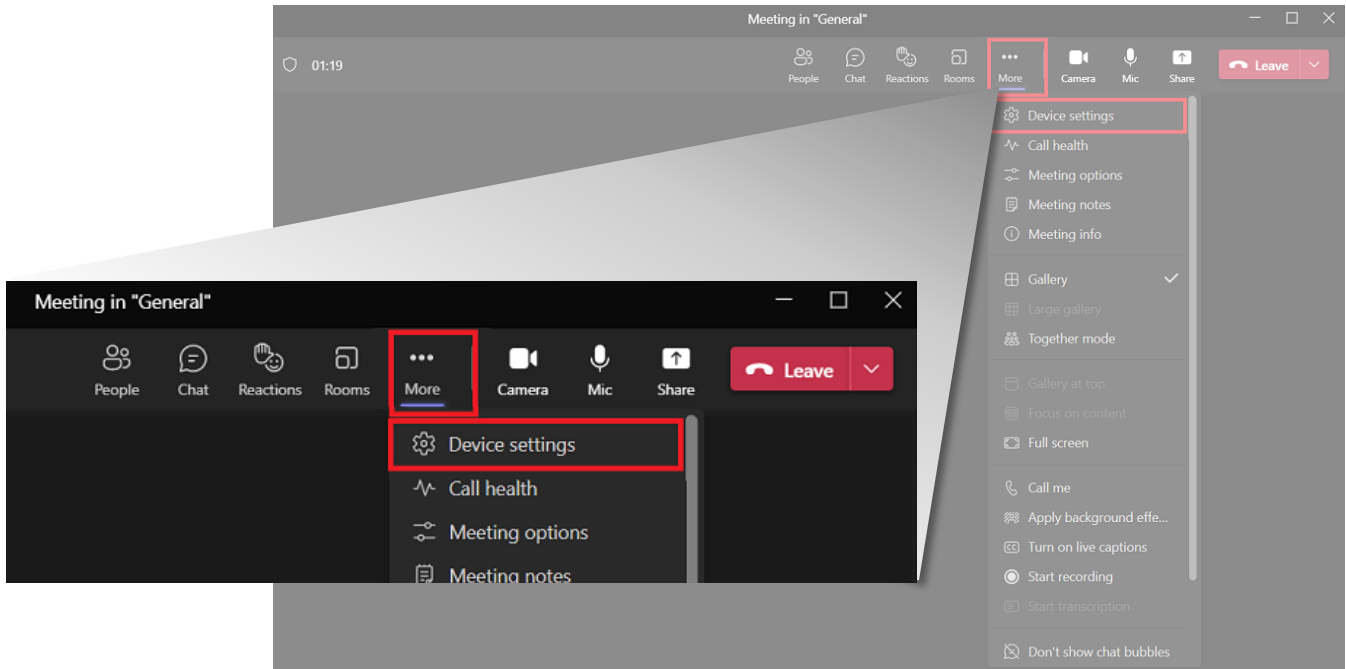
Speakers

Speakers (HT-Satellite-DOCK) (1d6b:... ▼

Call control ▼

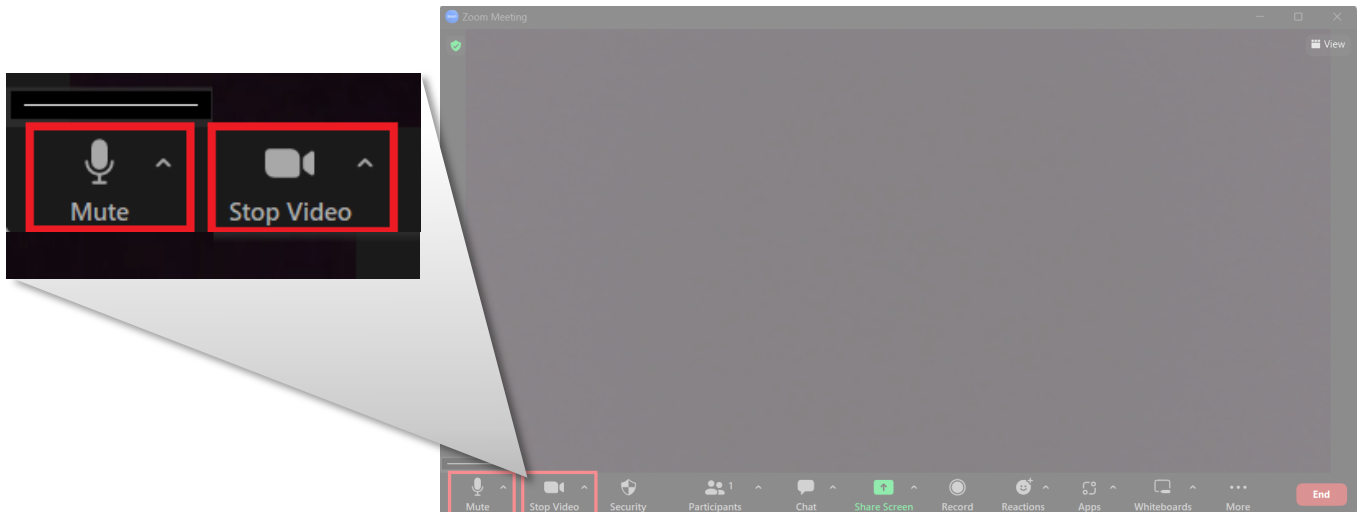
MICROSOFT TEAMS

To use the devices in Microsoft Teams, open Device Settings located in the “More” menu. In the video settings, select the “HT-WEBCAM-4K-AI” for the camera and in the audio settings select “HT-SATELLITE-DOCK” for both microphone and speaker.

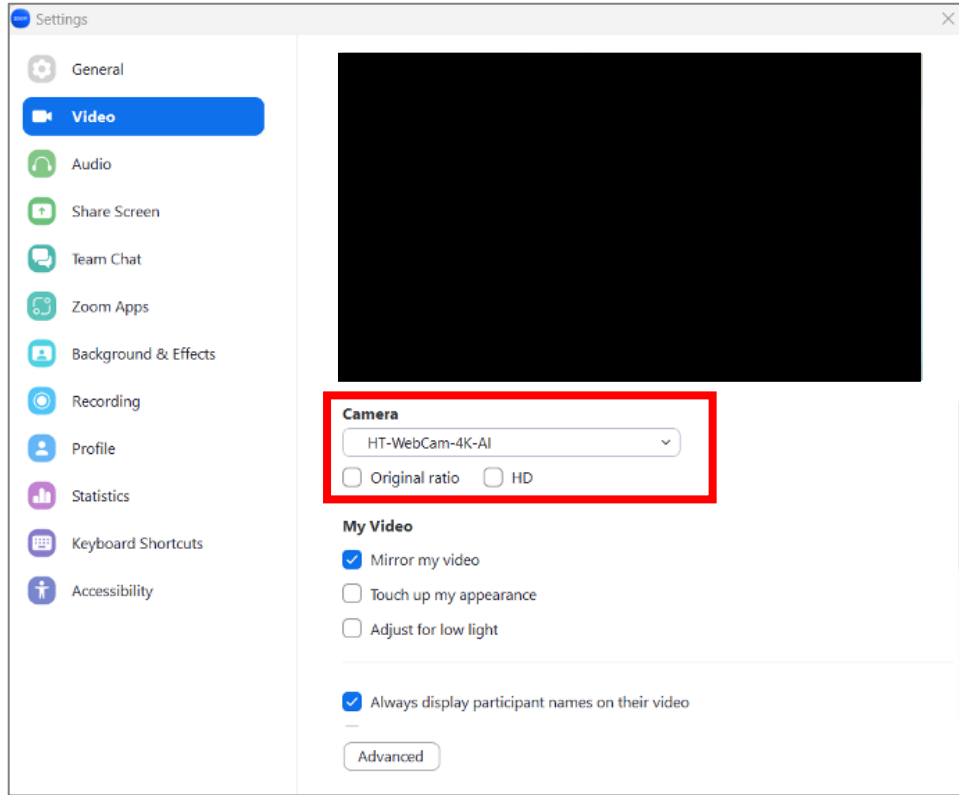


ZOOM

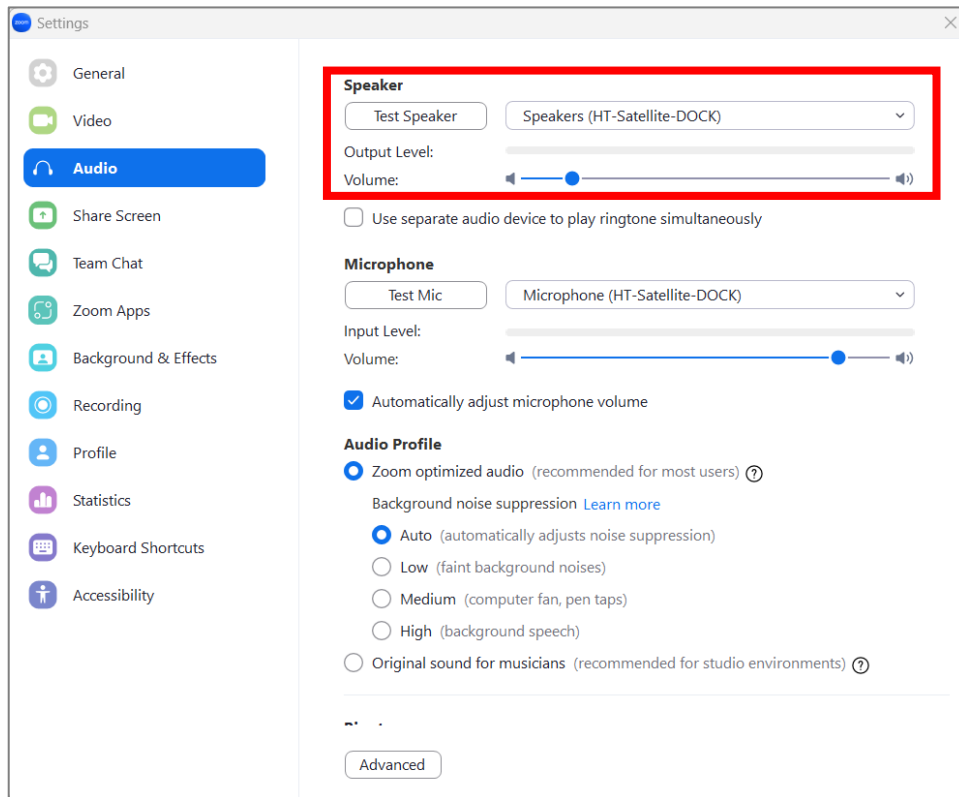
To use the devices in Zoom, click on the “up” arrow on the microphone and camera buttons located on the bottom left part of the Zoom screen. In the video settings, select the “HT-WEBCAM-4K-AI” for the camera and in the audio settings select “HT-SATELLITE-DOCK” for both microphone and speaker.



VIDEO



AUDIO



Troubleshooting

Problem Type	Problem	Options
Video	No Video in soft codec	If green LED on HT-WEBCAM-4K-AI is off: <ul style="list-style-type: none"> • Confirm the USB 3.0 cable is securely connected on both the camera and the PC • Check the quality of the USB 3.0 cable to ensure it has not been kinked or accidentally cut • Go into the soft codec application and make sure the HT-WEBCAM-4K-AI is selected as the camera • Try using a different application, such as the built-in camera application on the PC to verify video can be seen there. (NOTE: if using the built-in camera application and video is shown, the camera will not be shown in any other application until that application is closed.) • If HT-WEBCAM-4K-AI is connected into the HT-SATELLITE-DOCK, confirm a separate USB power supply is connected to the HT-SATELLITE-DOCK. (Try connecting it directly from the camera into the PC to see if that fixes video)
		If green LED on HT-WEBCAM-4K-AI is on: <ul style="list-style-type: none"> • Verify the PC has no updates pending (Windows often disables features when new updates have been released and those features are not enabled until updates are installed.) • Restart the PC to verify it is working properly.
Audio	No audio to far end on soft codec call	White LED on HT-SATELLITE-DOCK is off: <ul style="list-style-type: none"> • Confirm the USB 3.0 cable is securely connected on both the camera and the PC. • Check the quality of the USB 3.0 cable to ensure it has not been kinked or accidentally cut • Go into the soft codec application and make sure the correct microphone is selected
		White LED on HT-SATELLITE-DOCK is on: <ul style="list-style-type: none"> • Verify the microphone is not muted in the soft codec application • Verify the PC has no updates pending • Restart the PC to verify it is operating correctly

Specifications

HT-WebCam-4K-AI

Camera	
Video System	Max to 4K@30fps, 1080P@60fps, 720P@60fps
Sensor	CMOS, Effective Pixels: 8.0M
Scanning Mode	Progressive
Lens Mount	M12
Lens	Focus: f=2.8mm FOV: 106° (Diagonal)
Shutter	1/30s ~ 1/10000s
White Balance	Auto
Digital Noise Reduction	2D, 3D
Backlight Compensation	Auto
USB	
Operating Temperature	Windows 7 (1080P and under only), Windows 8.1, Windows 10 or higher macOS 10.10 or higher Google Chromebook Version 29.0.1547.70 or higher Linux
Color System / Compression	MJPEG (default) H.265 YUY2 H.264 NV12
Resolution	4K, 1080P, 720P, 640x480P, 640x360P
Frame Rate	90Hz, 60Hz, 30fps, 15fps
USB Video Communication Protocol	UVC v1.1
General	
USB Interface	Type-C Female
USB Cable Spec	USB 3.0 Type-A to Type C Cable
Microphone	Stereo Mic
Input Voltage	5V (USB Power Supply)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Device Dimension (W x H x D)	140mm x 30mm (5.5" x 1.2") (without bracket)

HT-Satellite-Dock

Video & USB	
Input Port	1x USB-C (laptop)
Input Signal Type	USB-C multifunctional port with display, data, and power delivery Data: USB 3.2 Gen 2, up to 10Gbps Video: DP alt mode, up to 4K@60Hz Power: Forward power from the laptop, 5V/3A recommended; Reverse power, 2.0 charging HOST device, 85W maximum
Output Signal Type:	1x HDMI out: HDMI 2.0 up to 4K@60Hz 2x USB-A: USB 3.2 Gen 2 Type-A, up to 10Gbps 1x USB-C multifunctional port Power: Power in, up to 130W Data: USB 3.2 Gen 2, up to 10Gbps Video out: DP alt mode, up to 4k@60Hz
Button	Touch control, volume up/down, mute/unmute
Speaker	
Speaker Type	Electrodynamic Speaker with Neodymium Magnet
Speaker Frequency Range	200 Hz ~ 20 kHz
Speaker Rated Power	2W
Microphone	
Microphone Coverage	360 degrees, omni-directional
Microphone Quantity	4
Microphone Frequency	100 Hz ~ 10 kHz
Digital Signal Processing	Built-in echo cancellation and noise reduction
General	
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)



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