Mobile Recording&Broadcasting Trolley

MCP-101

Catalogue

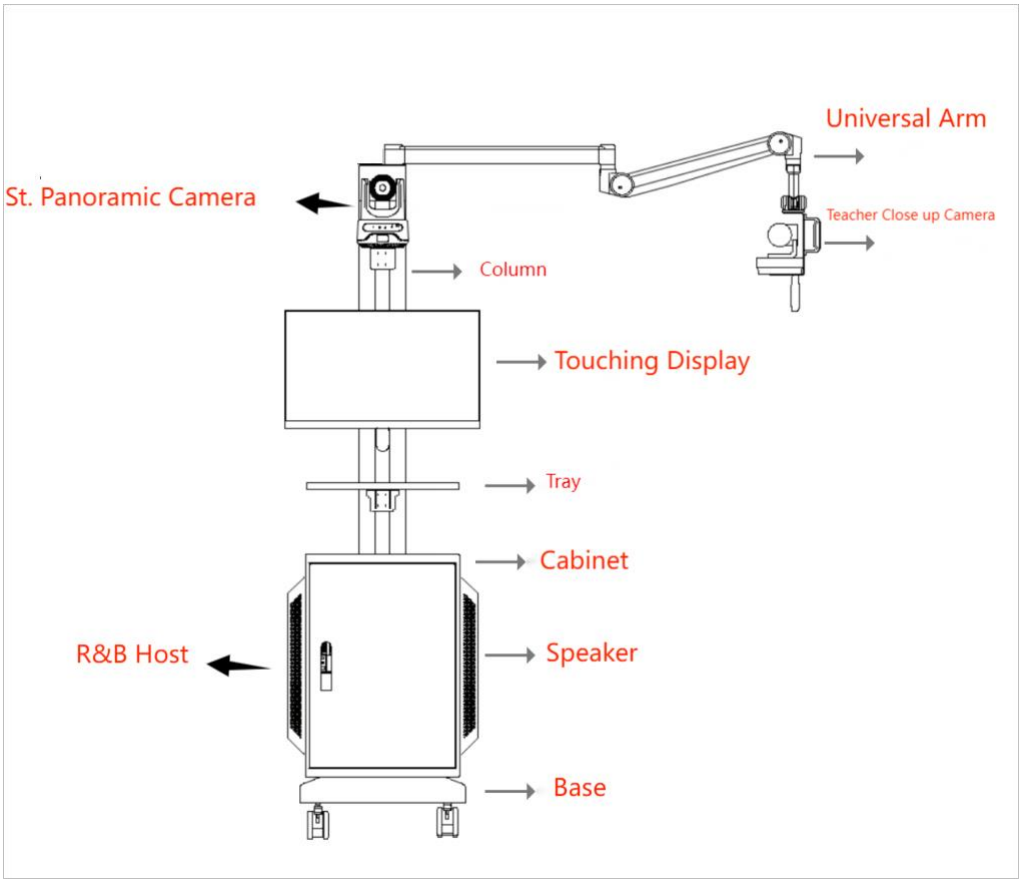
1.1 Brief Introduction

Wenxiang Practical Training Recording and Broadcasting System is a customized and developed recording and broadcasting instructional system specifically designed for vocational education training rooms. It primarily targets various vocational training disciplines such as fine arts, culinary arts, nursing, makerspaces, automotive repair, and cosmetology, providing a comprehensive solution for multi-disciplinary information technology construction in practical training scenarios.

In its design, the system emphasizes flexibility in application scenarios, stability of system equipment, and integration of capture and recording functions. It utilizes mobile carts as carriers and audiovisual equipment as supplements, allowing direct upgrades in existing training rooms. This integration facilitates deep integration of theoretical knowledge and practical skills, aiming to cultivate high-quality vocational education talents for the new area.

1.2Product appearance

1.3Features



1.4Details

1.Universal Arm

The universal arm is a three-section design, fixed at the top of the training vehicle. The first section of the supporting arm can move horizontally, the second section can move up and down, and a camera can be securely installed at the front end of the supporting arm. The entire arm can move horizontally and vertically.

For all directions camera shooting,It supports moving in two directions to capture footage from different positions and angles.

2.Central column

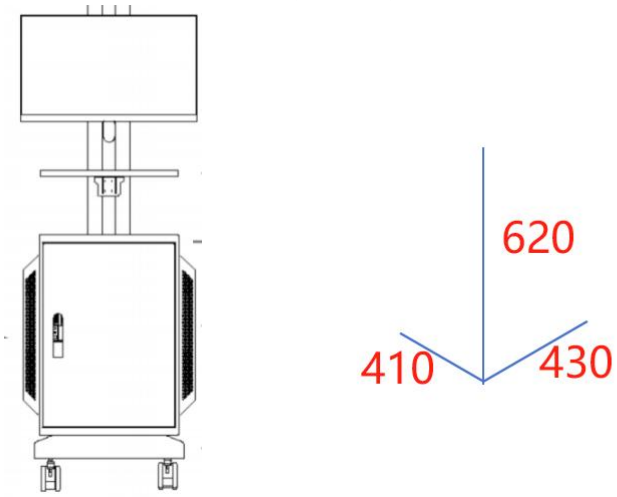
The central column is constructed with high-strength aluminum material, with a surface paint finish to prevent scratching. T-slots are provided on both the front and back sides, with concealed wiring holes reserved for easy installation of equipment such as camera brackets, monitor brackets, and storage trays.

3.Storage trays

A storage tray can hold items of a certain weight, and it is designed with push-pull handles to facilitate the movement of the training cart.

4.Cabinet

The cabinet is designed with a large space with an over all dimension of 430mm*620mm*410mm(W*L*D);



（1）The top of the enclosure is equipped with a battery level observation window, which can display the remaining battery level, remaining usage time, output power, and other parameters of the device.

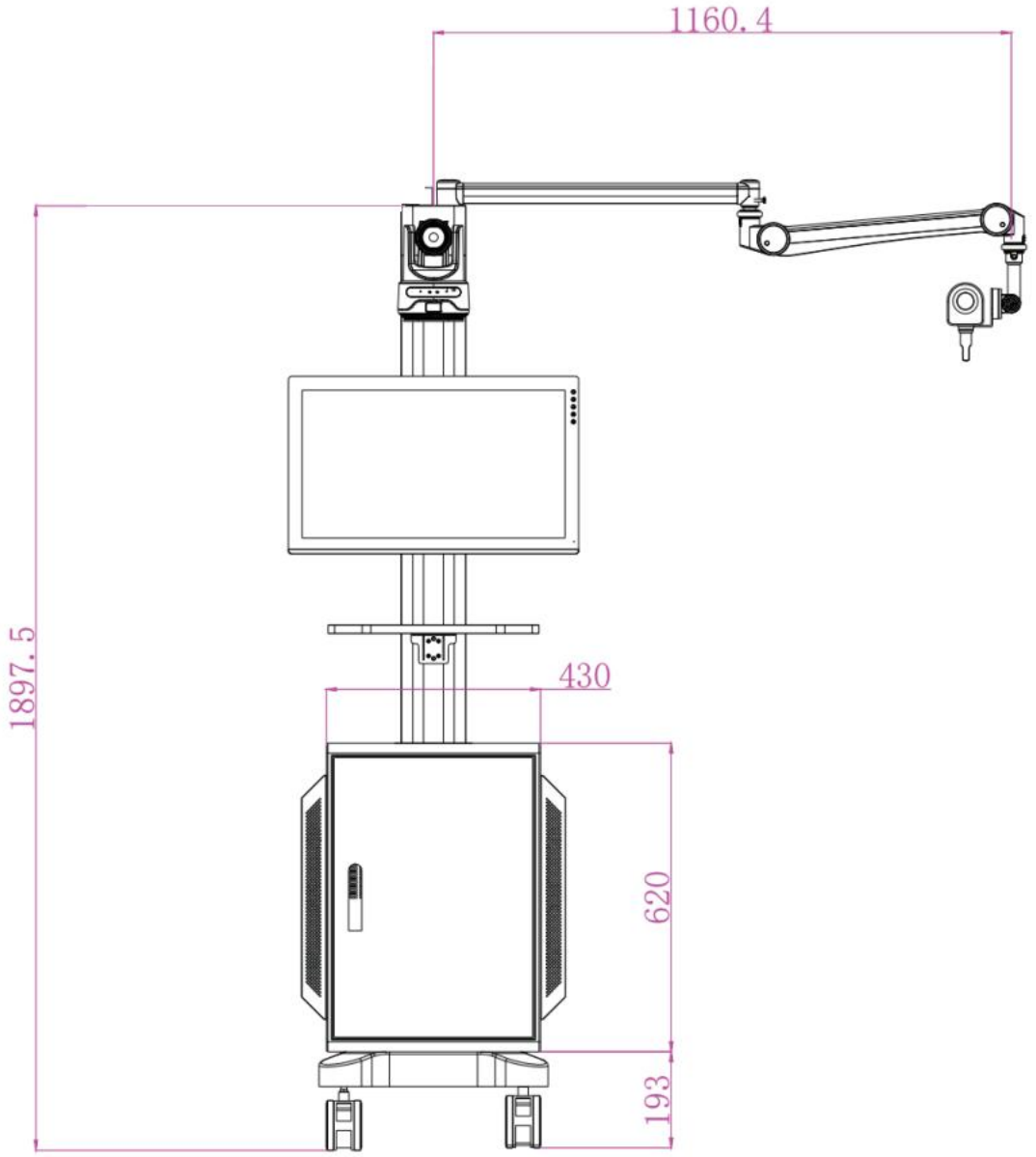
（2）The top of the cabinet is equipped with a power switch button. A short press displays the remaining battery power information, a long press of 3 seconds turns on the device, and another long press of 3 seconds turns off the device.

（3）The back of the cabinet is equipped with HDMI input, HDMI output, USB port, Ethernet port, and charging interface.

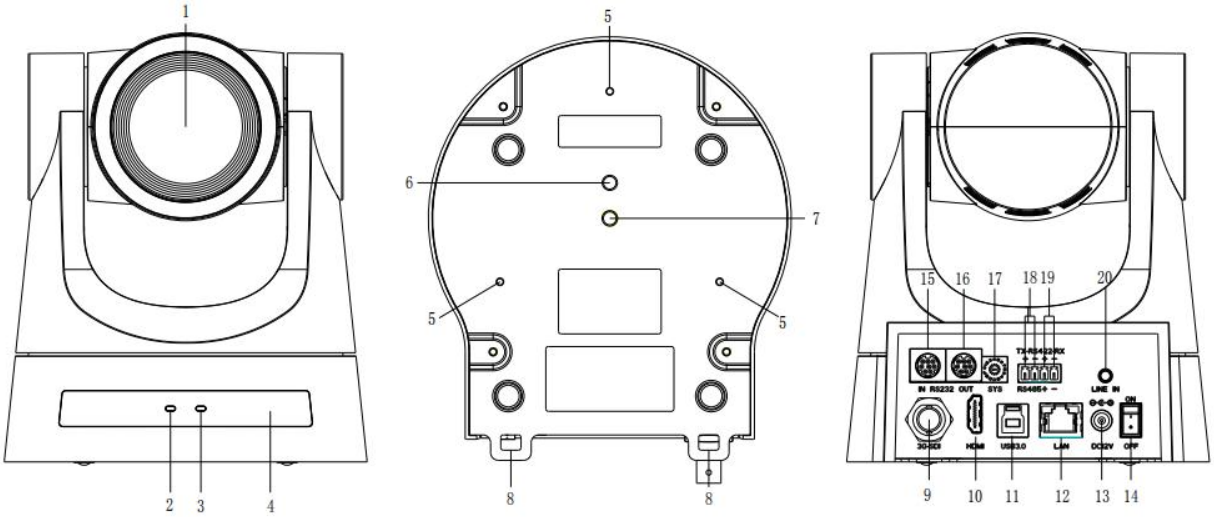
（4）On both sides of the cabinet, there is a concealed speaker structure that houses a pair of 20W speakers. Together with the built-in amplifier and wireless microphone, real-time sound amplification can be achieved.

（5）The interior of the cabinet is equipped with a removable battery structure, making it convenient to replace the battery and improve overall endurance.

（6）The bottom of the cabinet adopts a four-corner welding design, with overall dimensions of 460mm*460mm (length*width), equipped with four medical-grade universal silent wheels, and equipped with a foot brake device.


1160.4
1897.5
430
620
193

1.5Camera Instruction



Interface:

1、Lens

2、Power Indication light

3、Status Indication light

4、IR receiver

5、Limit hole

6、Tripod mounting location hole

7、Tripod mounting screws hole

8、Safety buckle

9、SDI out put

10、HDMI IN

11、USB3.0

12、LAN

13、DC12V

14、Power switch

15、RS232 IN

16、RS232 OUT

17、Rotary switch

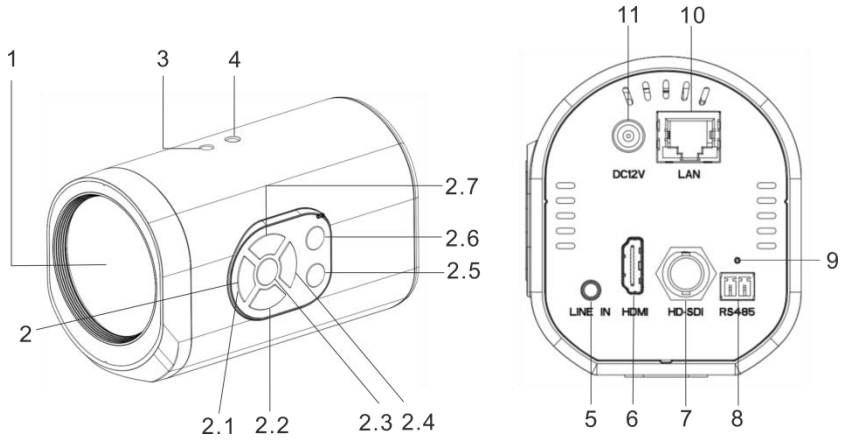
18、RS485 IN

19、RS422 IN

20、Line-IN

Features of camera	
Video compression formats	LAN supports：H.264、H.265 USB 3.0 supports：MJPG、H264、YUY2、NV12
Audio input	Dual-channel 3.5mm line input
Audio output	HDMI、SDI、LAN、USB3.0
Audio compression formats	AAC、MP3、G.711A
LAN	10M/100M/1000M,Adaptive Ethernet port, supports POE power supply, and supports audio and video output
Internet Protocol	RTSP、RTMP、ONVIF、GB/T28181、VISCA OVER IP、IP VISCA、RTMPS、SRT，OTA、Remote reboot、Remote reset
Control ports	RS232-IN、RS232-OUT、RS422(RS485)
Serial communication protocol	VISCA/Pelco-D/Pelco-P Baud rate:115200/38400/9600/4800/2400
USB communication protocol	UVC，UAC
Power input	DC12V
Power adaptor	Input AC110V~AC220V ； Output DC12V/2.5A
Voltage	DC12V±10%
Electric currency	<1A
Consumption	<12W

PTZ control	
Horizontal rotation	-170° ～+170°
Vertical rotation	-30° ～+90°
H-Speed control	0.1° /s～35° /s
V-Speed control	0.1° /s～30° /s
Speed to preset point	H：35° /s，V：30° /s
Preset points	Maximum 255 points(10 remote controls)



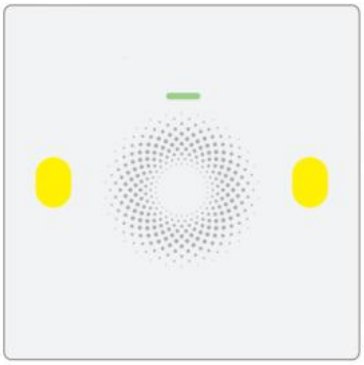
Interface of practical camera：

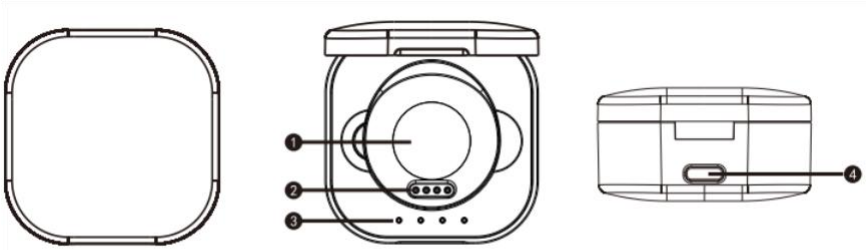
1、Lens	2.5、Freeze	6、HDMI
2、Physical buttons	2.6、Auto Focus	7、HD-SDI
2.1、BRI+/Menu Left	2.7、ZOO+/MenuUp	8、RS485
2.2、ZOO-/Menu Down	3、Installation Limit hole	9、Power Indication Light
2.3、Menu/Enter	4、Installation screws hole	10、LAN
2.4、BRI-/Menu Right	5、Audio In	11、DC12V

Features of practical camera	
Video output	HDMI、SDI、LAN
Audio Input	Line IN
Image coding	Dual-stream code output
Control port	RS485，2PIN Phoenix connector,VISC
Video compressing format	H.264
Lan	100M（10/100BASE-TX）POE power supply, support audio/video output
Internet protocol	RTSP、RTMP、ONVIF、GB/T28181 络 VISCA； OTA\Remote reboot\Remote reset
Power connector	5.0 slot (DC12V)
Power adaptor	Input AC110V-AC220V Output DC12V/2A
Voltage	DC12V±10%

Image sensor	1/2.8 inch HQ 4K CMOS
Pixel	851M、16：9
Video	**HDMI ：** 3840*2160P30/25;1080P60/50/30/25/59.94/29.97;720P60/50/59.94fps； **3G-SDI ：** 1080P60/50/30/25/59.94/29.97;720P60/50/59.94fps； **LAN ：** H264：3840*2160P30/25;1080P60/50/30/25/59.94/29.97;720P60/50/59.94fps；
Lens optical zoom	12x digital zoom f＝3.9～46.8mm
View angle	7.42°（T）~ 78.58°（W）（ D） 6.48°（T）~ 70.82°（W）（ H） 3.66°（T）~ 42.72°（W）（ V）
f-number	F1.6 - F2.8
Minimum illumination	0.5Lux(F1.8, AGC ON)
DNR	2D & 3D
White balance	Manual/Auto/One click white balance/Specify color temperature
Lens focusing	Manual/Auto/One-click focus, supporting TOF laser ranging module, assisting with focusing
Shutter、aperture	1/25-1/20000、Auto/Manual
BLC	On/Off Backlight compensation
Dynamic Range	OFF/Dynamic Range Adjustment
Video adjustment	Brilliance、Color、Saturation、Contrast、Sharpness、White&Black
SNR	≥50dB

1.6Microphone Introduction

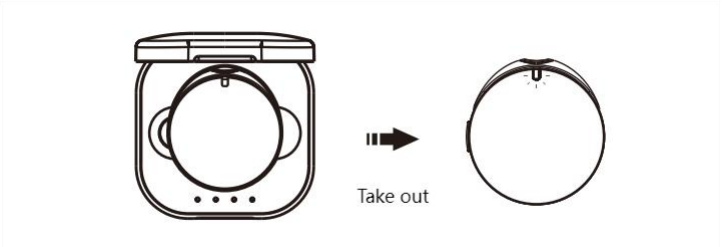




1.Charging case 2.Pogo Pin
3.Indicate Light 4.Type-C port

1、For the first-time use, please remove the insulating film from the bottom of the microphone transmitter to ensure normal charging during subsequent use.

After placing the microphone into the charging case, it will automatically power off and enter the charging mode. When charging starts, the red indicator light will stay on continuously, and when fully charged, the red indicator light will turn off.

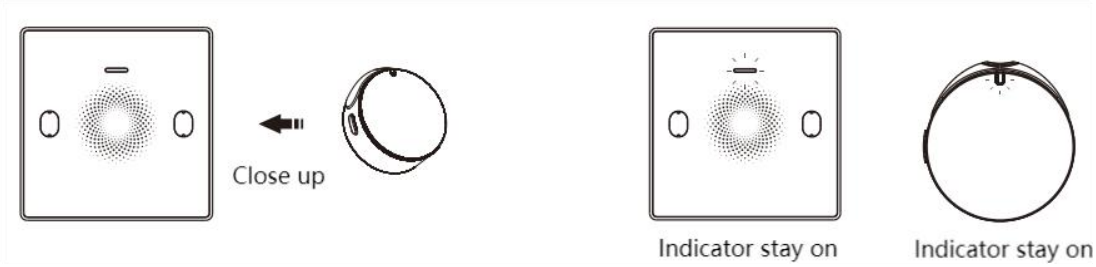


2、After taking the transmitter out from the charging case, the microphone will automatically power on and enter pairing mode. Please complete the pairing operation within 30 seconds. If the transmitter fails to complete the pairing operation after 30 seconds, it will power off automatically.

3、When the microphone transmitter is in normal speaking state, lightly pressing the button will switch it to mute mode, indicated by an orange light; then, lightly pressing it again will switch it back to normal speaking mode from mute mode.

4、When the microphone is in normal speaking mode, you can adjust the volume of the microphone by quickly double-clicking the switch button.

5、When the microphone transmitter is positioned near the middle sensing area of the microphone B receiver at the bottom, stay for about 1 second, and both enter the pairing state. After successful pairing, the green light of microphone B will stay on continuously, and the buzzer will make a "beep" sound. It is important to note that when the transmitter and receiver enter the pairing state, the distance between the two should be kept within 50cm as much as possible. Exceeding this range will affect the realization of the pairing function.



Transmitter		
1	Product	Portable wireless microphone
2	Usage Scenario	Indoor
3	Communication Frequency	2.4G
4	Channels	\
5	Transmitter Power	9dBm
6	Distance	< 20m
7	Latency	< 20mS
8	SINR	≥85dB
9	Distortion	<0.5%@1KHz
10	Frequency response range	100Hz-12KHz(±2db)
11	Pair	Close up 2.4G pairing
12	Power supply	Built-in Li battery，100mA
13	Power duration	Formal version：6h±15min
14	Usage Scenario	Indoor
15	Indicator	1、Connection （1）Disconnected、pairing Green light blinking； （2）Connected Green light stays on； （3）Low battery&connected red light stays on； Note:Low battery&disconnected Green light blinking 2、Charging（Red light stays on, Finished red light gone）

		3、Mute Orange light stays on
Receiver		
1	Product	Portable wireless pairing module
2	Usage Scenario	Indoor
3	Communication frequency	2.4G
4	Channels	\
5	Distance	＜20m
6	Phoenix Connector	VCC,GND，+，-，
7	Pairing mode	Close up pairing
8	Power supply	（1）5V direct current supply （2）USB supplying，5V
9	Indicator	Power on： 1、Right light stays on, device standby： 2、 Pairing :Green light blinking Connected：Green light stays on and the buzzer will make a "beep" sound
Charging case		
1	Product	Portable wireless microphone charging case
2	Usage Scenario	Indoor
3	Battery remaining indication	Shows up after transmitters in the case
4	Power supply	5V, 2hours finish the charging for the transmitters
5	Duration	2 times for full charge of microphone（Capacity：300mAH）