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## VisionCore156A Help Manual

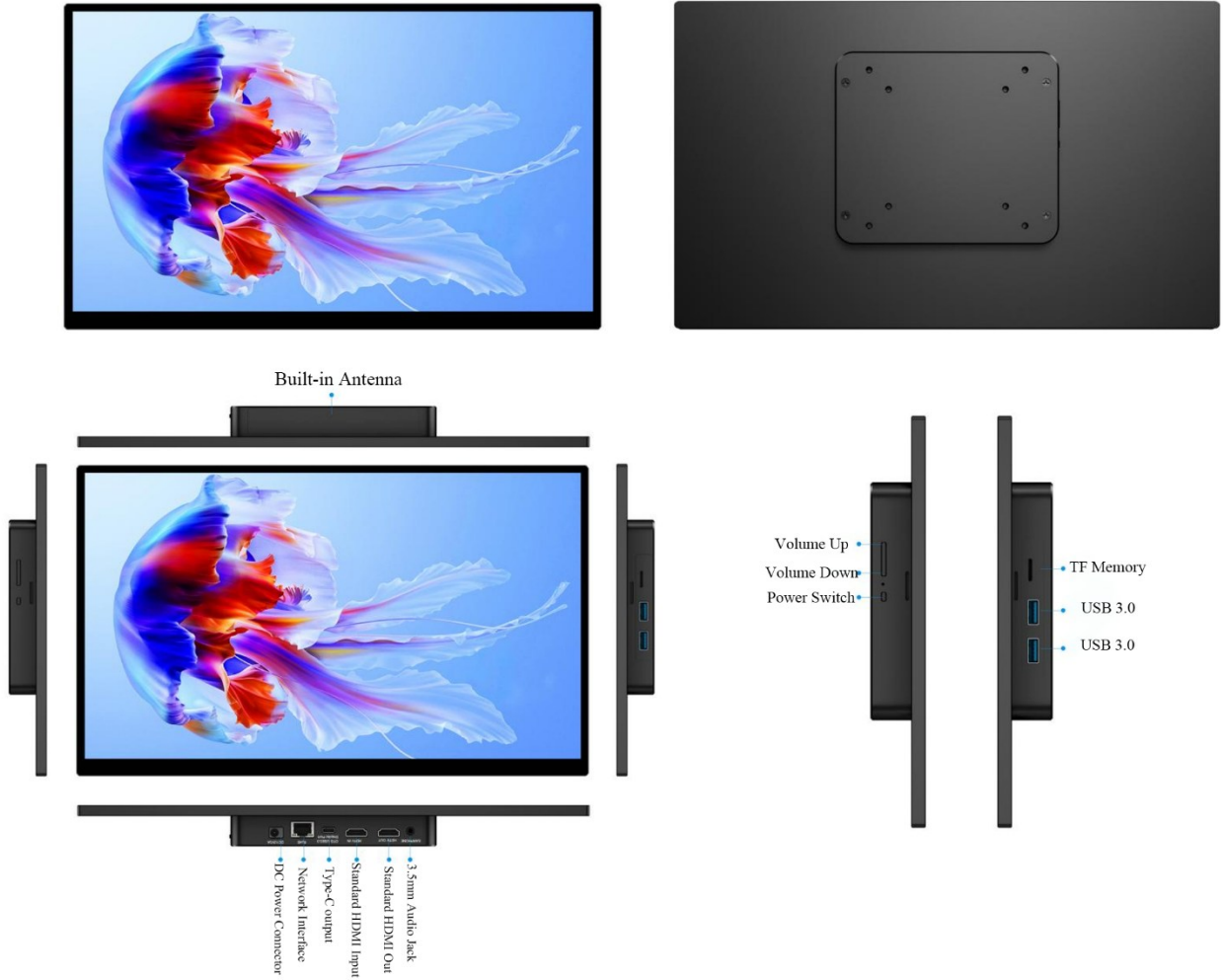


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## 1 VisionCore156A Introduction

VisionCore156A is our newly launched 15.6-inch touchscreen Android tablet featuring a high-performance embedded processor and a wide array of peripheral interfaces. It seamlessly integrates with our range of cameras equipped with various interfaces (USB, NETWORK, HDMI) for video and image capture, processing, and analysis. This versatile solution is ideal for applications across industrial smart inspection, medical diagnostics, biological microscopy, and beyond.



## 2 Model

The Android system touchscreen models are as follows:

Order Code	Operating System	Processor	Memory	Storage	Display Size	Resolution
VisionCore156A	Android 12	RK3588	8GB LPDDR	128GB EMMC	15.6 inches	1920x1080

**Note:** Display sizes are available for bulk customization, with options including 13.3-inch, 15.6-inch, 17.3-inch, 18.5-inch, and 21.5-inch models.

## 3 Interface Specifications

Interface	Description
Power	DC12V3A
HDMI IN	HDMI-A 2.0
HDMI OUT	HDMI-A 2.0
LAN	RJ45 1000Mbps LAN port
Type-C	OTG interface, capable of functioning as a host to connect USB drives and other peripherals; it can also operate as a device to output DisplayPort video.
USB Port	2 USB 3.0 ports for connecting devices such as flash drives
Headphones	Standard 3.5mm jack
TF interface	For TF card storage
Volume buttons	2, for adjusting the volume
Power button	Press briefly to wake the screen, press and hold to power off.
VESA Wall Mount	100*100/75*75mm

## 4 Display Specifications

Parameters	Description
Display Size	15.6 inches
Display Area	344.16(H) × 193.59(V)
Resolution	1920(RGB)×1080,FHD (16: 9)
Brightness	300 cd/m <sup>2</sup> (Typ.)
Contrast	1000:1 (Typ.)
Refresh rate	60Hz
Display Color	16.7M (8-bit)
Color gamut	72% NTSC(Typ.)
Response time	11/9(Tr/Td)ms
Viewing angle	89/89/89/89(Typ.)(CR≥10)
External Dimensions (mm)	357.1(H) x214.2(V)
External Thickness (mm)	27.5
Weight	1065g

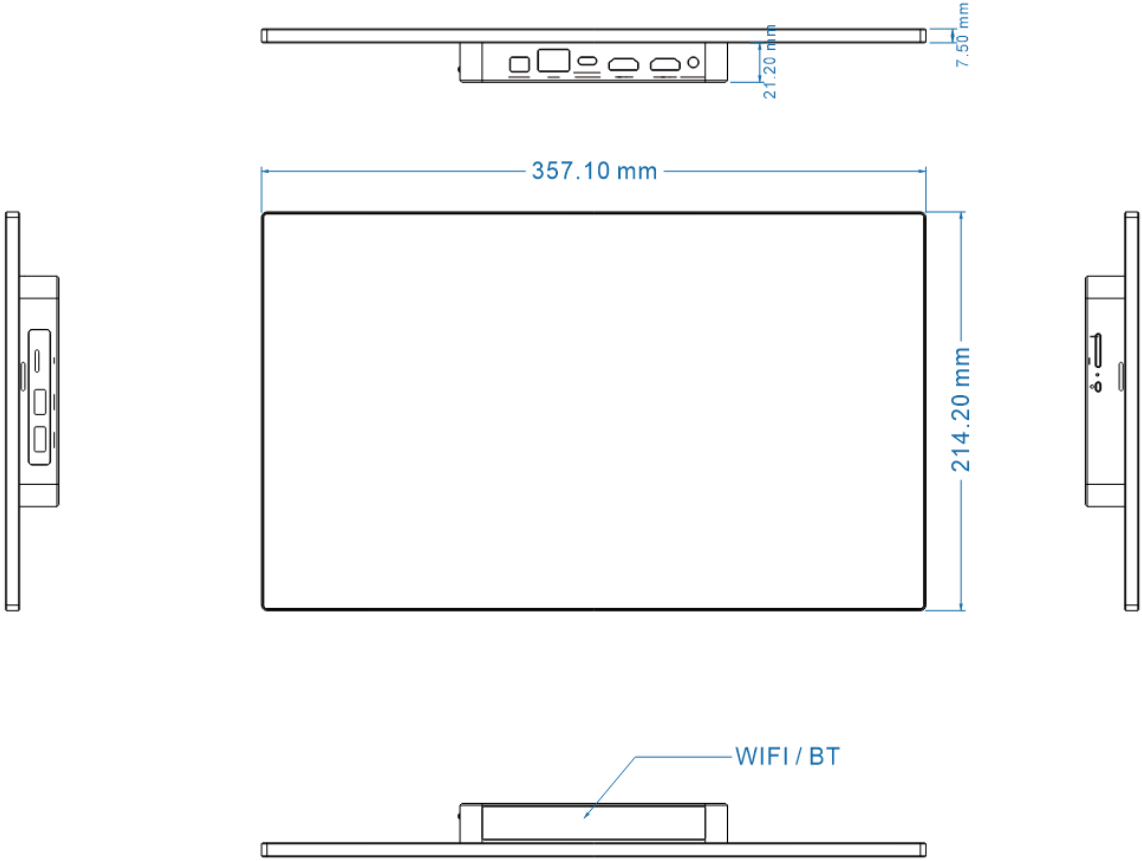
## 5 Functional Specifications

Parameters	Description
Operating System	Google Android 12
CPU	4xCortex-A76+4xCortex-A55
CPU clock speed	2.4GHz
GPU	Mail-G610
Memory	LPDDR4X 8GB
Storage	EMMC 128GB
Touch method	Capacitive Touch G+FF Supports Multi-Touch

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Speaker output	8 ohms, 1.5W*2
Network	RJ45 port, supporting Gigabit Ethernet networking; WiFi & Bluetooth module, Wi-Fi 5 (2.4GHz/5GHz) + Bluetooth 5.0;
Power	Input power: DC 12V, 3A; Maximum power consumption: 17W; Standby power consumption: <0.5W
Operating Temperature	0°C~60°C
Storage temperature	-20°C~70°C
Operating Humidity	10%~80% (non-condensing)
Storage humidity	10%~90% (non-condensing)

6 External Structural Dimensions Drawing



**7 VisionCore156A Packing Information**

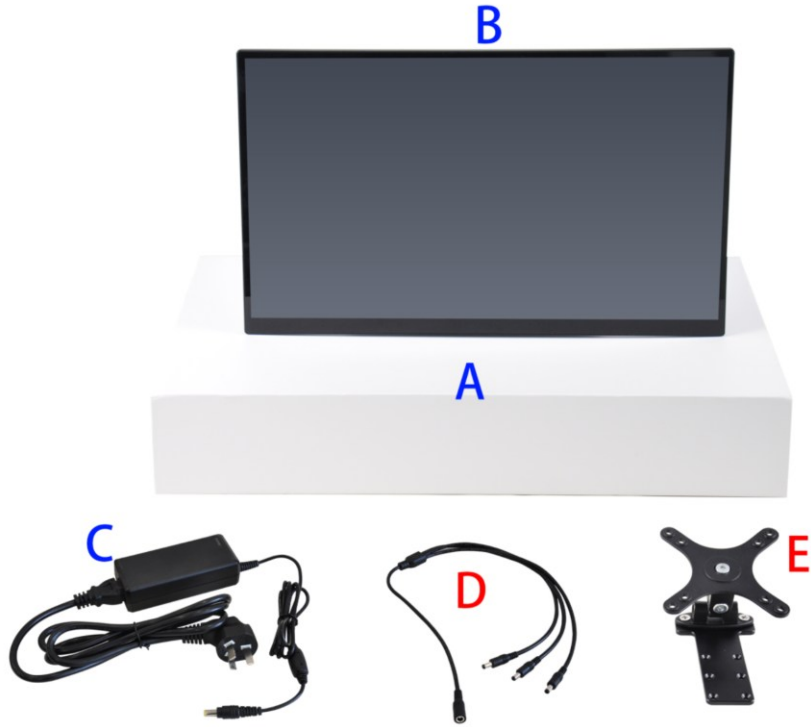


Figure 1 VisionCore156A Packing Information

<b>Standard Packing List</b>	
<b>A</b>	Gift box: L:44.1cm W:29.1cm H:7.5cm (1pcs, 2.1Kg/ box)
<b>B</b>	VisionCore156A
<b>C</b>	Power Adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 5A China Standard: Model: POWER-12V5A(HKA06012050-0A7) + China standard cord American standard: Model: POWER-12V5A(HKA06012050-0A7) + American standard cord European standard: Model: POWER-12V5A(HKA06012050-0A7) + European standard cord British standard: Model: POWER-12V5A(HKA06012050-0A7) + British standard cord
<b>Optional Accessory</b>	
<b>D</b>	One-to-Three Power Cable
<b>E</b>	Adapter Bracket

## 8 Instructions for Use

You can download the Android app or SDK by visiting the website:

<https://www.touptekphotonics.com.cn/download/>.

<b>Video Input Interface</b>	<b>APP Name</b>	<b>SDK</b>	<b>Camera Model</b>
USB (Toupcam proprietary driver)	ToupView	ToupCamSDK	C2CMOS/E3ISP series
USB (UVC Common Protocol)	ToupView	UVCCamSDK	SMOS series
USB (UVC Common Protocol)	ToupView	UVCHamSDK	X5CAM/X8CAM/WUCAM series
Network (RJ45 or WiFi)	ToupView	ToupNamSDK	XCAMTOP4K/X5CAM4K series WUCAM/WEUCAM series
HDMI	XCamView	XCamSDK	X5CAM4K/X5FCAM/AFDM5XX series

## 9 VisionCore156A Tablet Four Mounting Methods

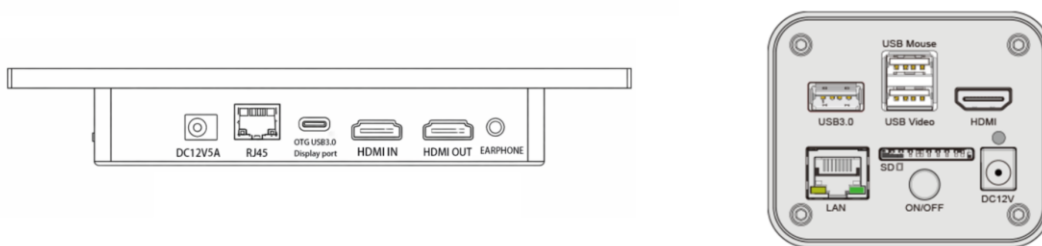
### 9.1 The VisionCore156A is Placed on a Desktop Using a VESA-Compliant Mount.



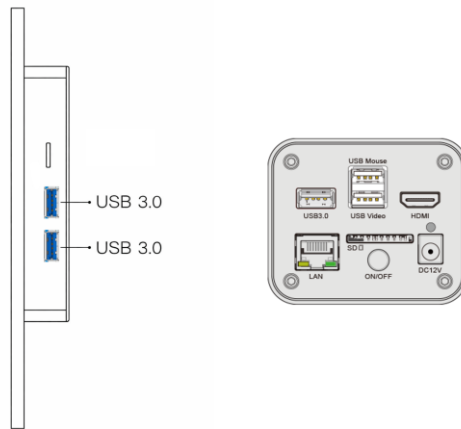
Figure 2 HDMI Camera Mounted on Biological Microscope Connected to VisionCore156A

This application requires an HDMI camera (such as the X5CAM4K8MPA), an HDMI cable, a USB 3.0 cable, an VisionCore156A, and a power adapter. The setup steps are as follows: (Note: Touchscreen packaging does not include a VESA-standard mount by default; customers may purchase and install one separately.)

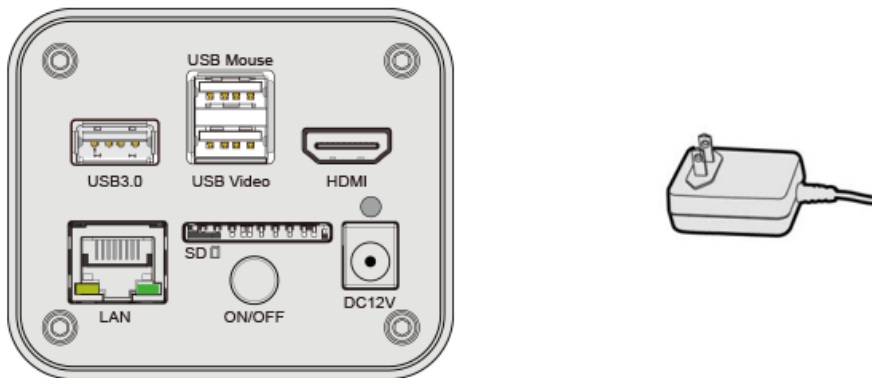
- Connect the camera to the HDMI IN port of the VisionCore156A using the included HDMI cable.



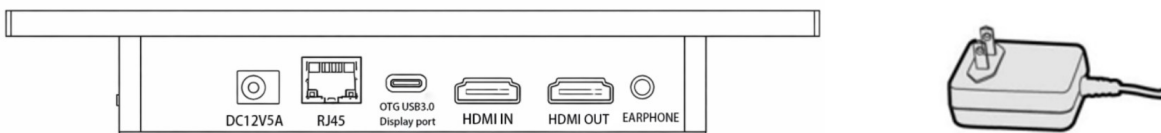
- Connect the included USB 3.0 cable to the USB Video port on the camera and the USB 3.0 port on the VisionCore156A.



- Plug the included power supply into the **DC12V** power port of the camera, then turn on the power switch of the camera.



- Plug the included power adapter into the **DC12V5A** power port at the bottom of the VisionCore156A. The touchscreen will turn on automatically.



- **XCamView** software launches automatically at startup. Viewing real-time camera video. By tapping the screen, you can display the **software control icons** below the window and the **measurement toolbar** above the window to operate the camera.

9.2 The Android Touchscreen Installed on a Camera for Use

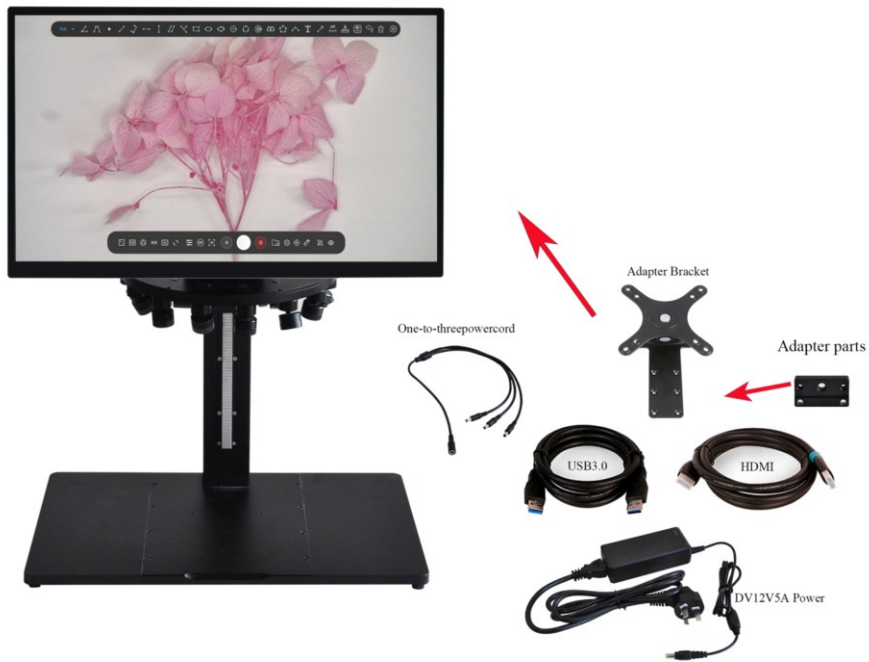


Figure 3 The Android Touchscreen Installed on a Camera for Use



Figure 4 Side View of the Android Touchscreen Installed on the Camera

This application requires a bracket (such as the TPS-600 bracket), Adapter Bracket, Adapter Parts an HDMI camera (such as the AFDM512A), an HDMI cable, a USB 3.0 cable, an Android touchscreen, a one-to-three power cord, and a power adapter. The setup steps are as follows:

- Mount the Android touchscreen to the AFDM512A camera using the adapter bracket and adapter parts. Align the mounting holes on the bottom of the camera with the mounting holes on the adapter bracket, then secure it with screws. The installation is shown in Figure 5.

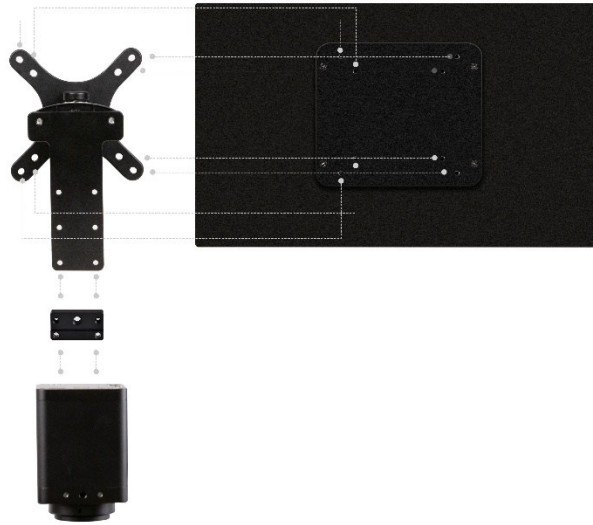
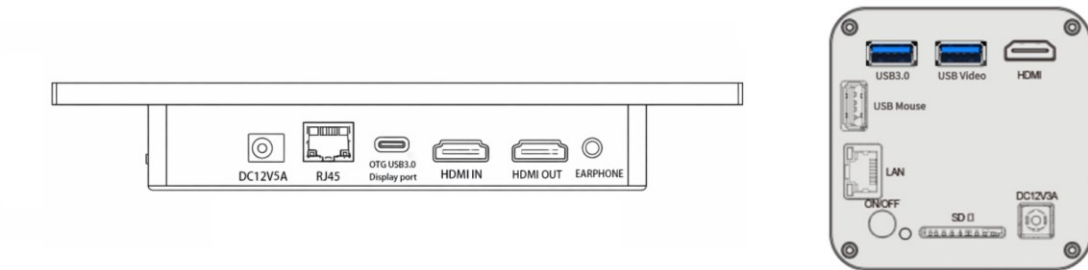
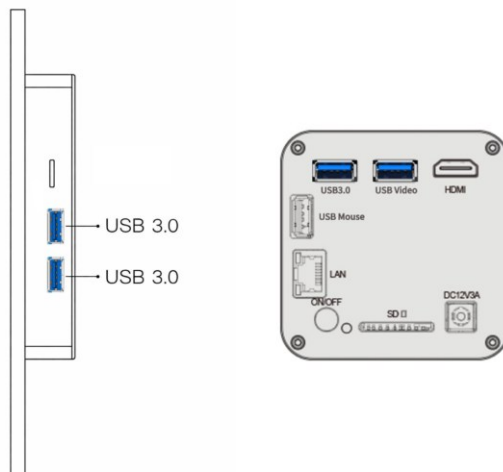


Figure 5 Example of an Android screen connected to a camera via an adapter mount

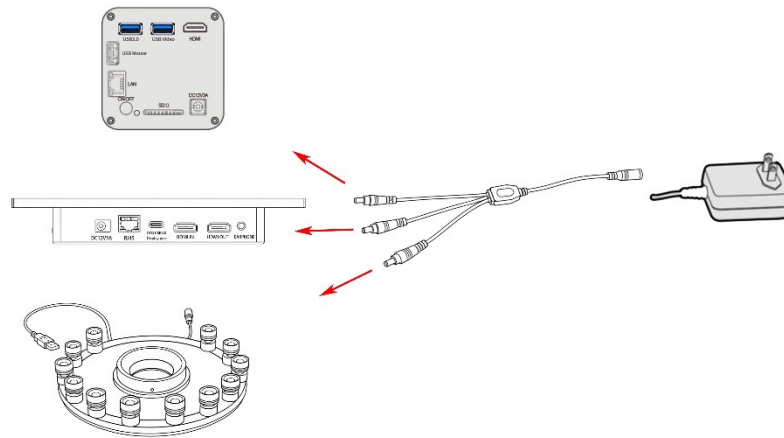
- Once installation is complete, the overall side view is shown in Figure 4.
- Connect the camera to the **HDMI IN** port of the Android touchscreen using the included HDMI cable.



- Connect the included USB 3.0 cable to the **USB Video** port on the camera and the **USB 3.0** port on the Android touchscreen.



- Connect one end of the included **DC12V5A** power supply to the input port of **the supplied power splitter cable**. Connect the output ports of the power splitter cable to the power ports of the **touchscreen**, **camera**, and **light** source respectively. The touchscreen will power on automatically.



- **XCamView** software launches automatically at startup. Viewing real-time camera video. By tapping the screen, you can display the **software control icons** below the window and the **measurement toolbar** above the window to operate the camera.

9.3 The VisionCore156A Mounted on a Bracket for Use



Figure 6 TPS-600 Mount + AFDM512A Camera + VisionCore156A

This application requires a bracket (such as the [TPS-600 bracket](#)), [Adapter Bracket](#), an HDMI camera (such as the [AFDM512A](#)), an [HDMI cable](#), a [USB 3.0 cable](#), an [VisionCore156A](#), a [one-to-three power cord](#), and a [power adapter](#). The setup steps are as follows:

- Securely mount the [VisionCore156A](#) onto the [TPS-600 bracket's](#) upright column using the [adapter bracket](#). Align the mounting holes on the bracket's backplate with the display's interface holes, then fasten with screws. Installation is shown in [Figure 7](#).

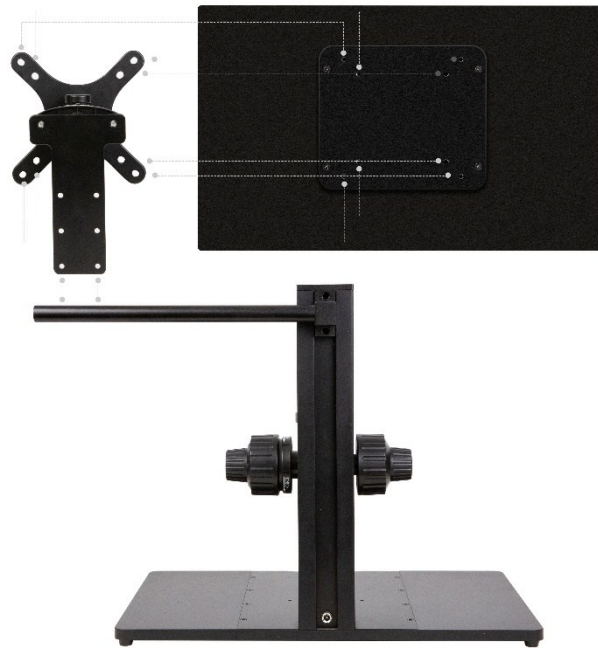


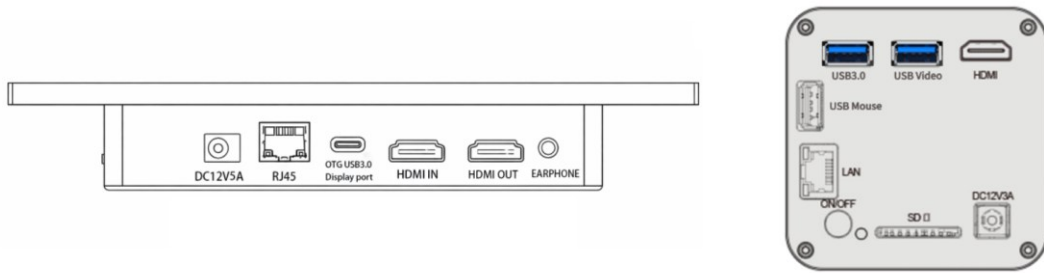
Figure 7 Example of VisionCore156A connected via adapter bracket

- After installation, the overall effect is shown in Figure 8.

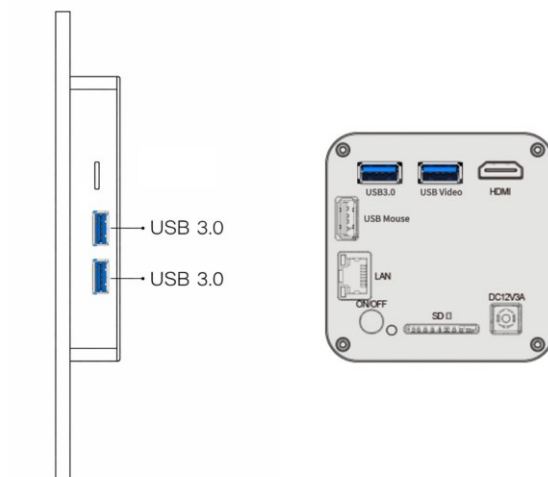


Figure 8 Overall installation effect

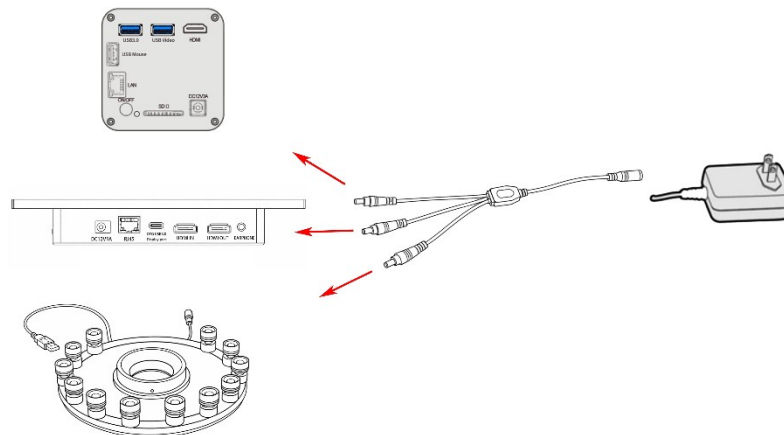
- Connect the camera to the [HDMI IN](#) port of the VisionCore156A using the included HDMI cable.



- Connect the included USB 3.0 cable to the **USB Video** port on the camera and the **USB 3.0** port on the VisionCore156A.



- Connect one end of the included **DC12V5A** power supply to the input port of **the supplied power splitter cable**. Connect the output ports of the power splitter cable to the power ports of the **touchscreen**, **camera**, and **light** source respectively. The touchscreen will power on automatically.



- **XCamView** software launches automatically at startup. Viewing real-time camera video. By tapping the screen, you can display the **software control icons** below the window and the **measurement toolbar** above the window to operate the camera.

9.4 The VisionCore156A support integrated for use in devices



Figure 9 VisionCore156A and Endoscope Applications



Figure 10 VisionCore156A and Biomicroscope Applications



Figure 11 VisionCore156A and Industrial Manufacturing



Figure 12 VisionCore156A and Colony Counter

The VisionCore156A supports integration with customers' existing equipment, serving as a display and touch-operated terminal. It can be connected to industrial computers, embedded hosts, testing equipment, or other control systems based on specific application scenarios. This solution is compatible with the Android operating system and is suitable for [industrial control](#), [testing instruments](#), [medical devices](#), and [customized integration](#) applications.

## **10 Contacting Customer Service**

Please contact your local distributor if you have any questions about the product.