

UnitV2 USB

SKU:U078-USB



Quick Start

- [Built-in recognition function use tutorial](#)
- [V-Training online AI model training service](#)
- [Jupyter Notebook Development Tutorial/Example](#)
- [SSH connection & WIFI configuration](#)
- [Firmware update tutorial](#)

Description

The UnitV2 USB is the latest high efficiency AI recognition module from M5Stack, it adopts Sigmstar SSD202D (integrated dual-core Cortex-A7 1.2GHz processor) control core, 128MB-DDR3 memory and 512MB NAND Flash. It offers USB-A universal interface, which allows you to connect various UVC Cameras, Built-in Linux operating system, integrated with rich hardware and software resources and development tools brings you a simple and efficient AI development experience right out of the box!

Product Features

- Sigmstar SSD202D
- Dual-core Cortex-A7 1.2GHz processor
- 128MB DDR3
- 512MB NAND Flash
- USB-A universal interface, can be connected to various UVC cameras
- Wi-Fi 2.4GHz
- Development method:
 - Equipped with 12 ways AI image functions: QR code, face detection, line tracking, movement, shape matching, image streaming, classification, color tracking, face

recognition, target tracking, shape detection, custom object detection

- Support online preview, UIFlow (used as serial port json format)
- Linux system(OpenCV, SSH, JupyterNotebook)

Include

- 1 x M5Stack UnitV2 USB
- 1 x 16g TF Card
- 1 x USB-C cable (50cm)
- 1 x bracket
- 1 x back clip

Application

- AI recognition function development
- Industrial visual recognition classification
- Machine vision learning

UNIT-V2 series comparison

Spec	UNIT-V2	UNIT-V2 M12	UNIT-V2 USB
Lens equipment	Normal focal length (FOV 68°)	Normal focal length (FOV 85°) + wide-angle focal length (FOV: 150°)	Without lens, USB-A universal interface, can be connected to various UVC cameras
CMOS	GC2145	GC2053	/

Specifications

Specification	Parameters
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Specification	Parameters
Sigmstar SSD202D	Dual Cortex-A7 1.2GHz Processor
Flash	512MB NAND
RAM	128MB-DDR3
Camera	Not equipped with a lens, USB-A universal interface, can be connected to various UVC cameras
Input voltage	5V @ 500mA
Hardware Peripherals	TypeC x1, UART x1, TFCard x1, Button x1, Microphone x1, Built-in active cooling fan x1
Indicator light	Red, White
Wi-Fi	150Mbps 2.4GHz 802.11 b/g/n
Ethernet network card	SR9900



Driver Installation

Download the corresponding SR9900 driver according to the operating system used.



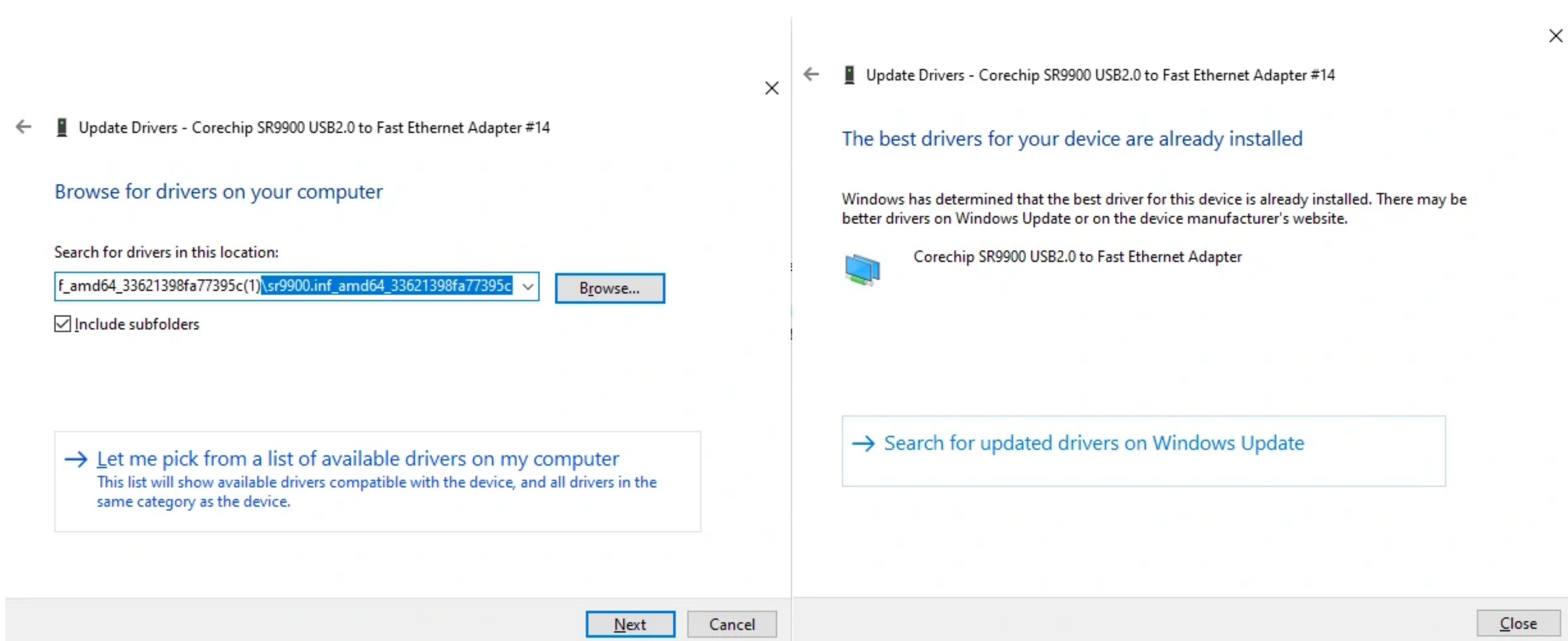
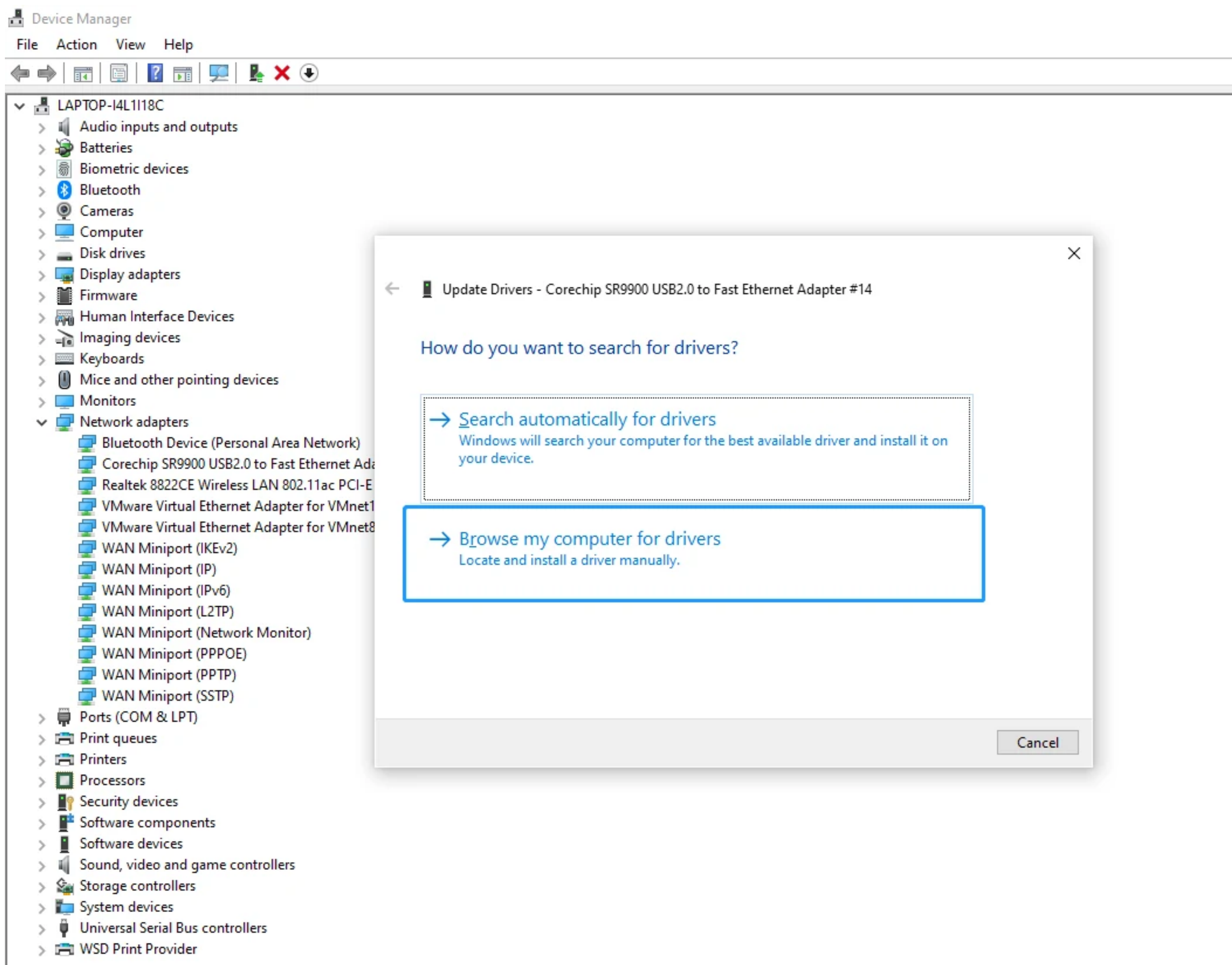
Windows10



MacOS

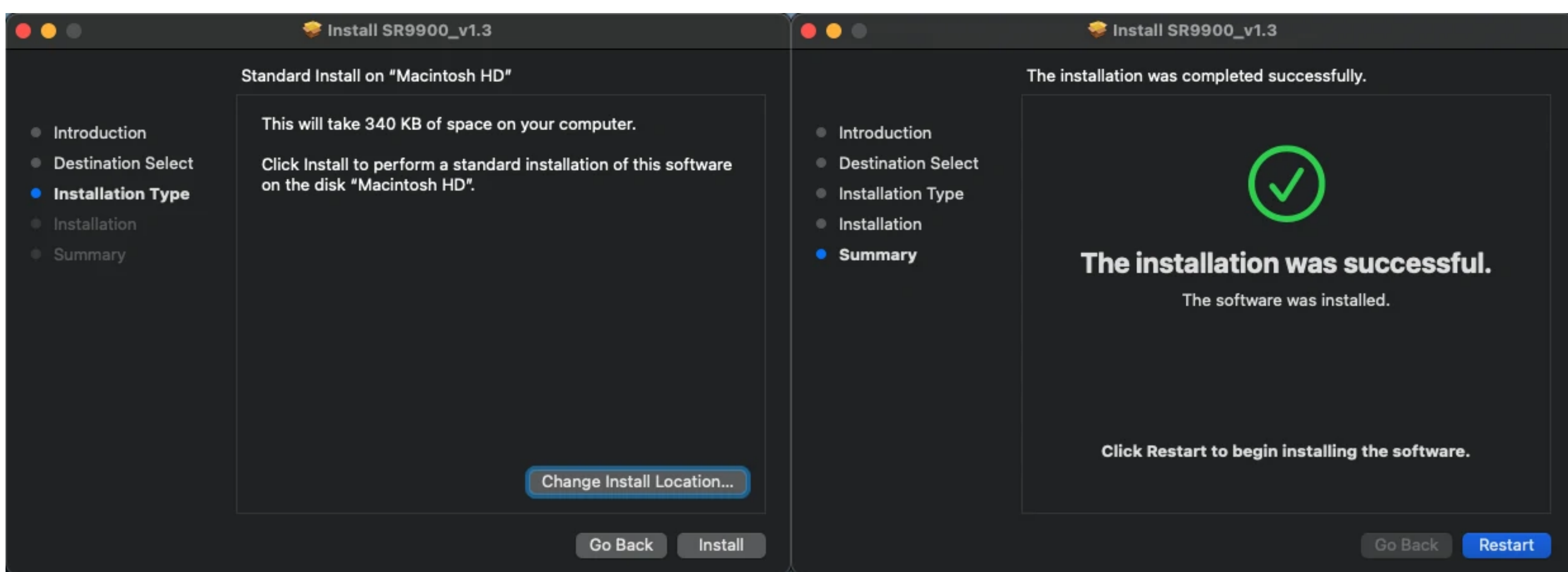
Windows10

Extract the driver compressed package to the desktop path -> Enter the device manager and select the currently unrecognized device (named with SR9900) -> Right-click and select Custom Update -> Select the path where the compressed package is decompressed -> Click OK and wait for the update carry out.



MacOS

Extract the driver package -> double-click to open the SR9900_v1.x.pkg file -> follow the prompts and click Next to install. (The compressed package contains a detailed version of the driver installation tutorial pdf)



- After the installation is complete, if the network card cannot be enabled normally, you can open the terminal and use the command below to re-enable the network card.

```
sudo ifconfig en10 down  
sudo ifconfig en10 up
```

Related Link

Out Of The Box AI Recognition Function

- UnitV2 integrates not only the basic AI recognition developed by M5Stack, but also has built-in multiple recognition (such as face recognition, object tracking and other common functions), which can quickly help users build AI recognition applications.
- All features! Plug and play! UnitV2 has a built-in wired network card. When you connect to a PC through the TypeC interface, it will automatically establish a network connection with UnitV2. Flexibly Connectable, it can also be connected and debugged via Wi-Fi.
- UART serial port output, all identification content is automatically output in **JSON** format through the serial port for convenient use.
- [Built-in recognition function use tutorial](#)
- [Identify the source code of the service framework](#)
- [Firmware update tutorial](#)

Development Efficiency Improvement

- UnitV2's factory setting Linux image integrates a variety of basic peripherals and development tools (such as Jupyter Notebook etc.)
- Through SSH access, you can fully control the hardware resources of this camera

- Through SSH access, you can fully control the hardware resources of this camera
- Easily build a custom recognition model through M5Stack's V-Training (AI model training service).
- [V-Training online AI model training service](#)
- [Jupyter Notebook Development Tutorial/Example](#)
- [SSH connection & WIFI configuration](#)

| Video

UnitV2 Built-in functions out of the box

UnitV2 Applications