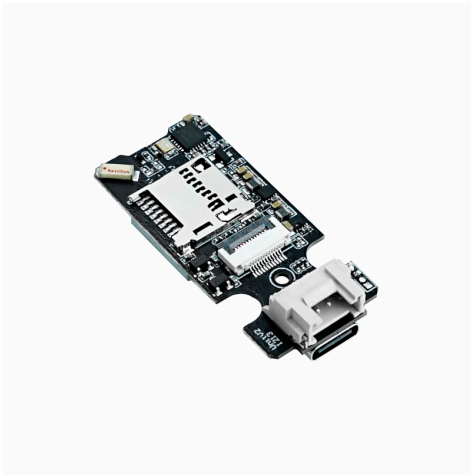


UnitV2

SKU:U078-D





Description

UnitV2 is a high-efficiency AI recognition module launched by M5Stack, featuring the SigmaStar SSD202D (integrated dual-core Cortex-A7 1.2GHz processor) as the control core, integrated with 128MB DDR3 memory, 512MB NAND Flash, and a 1080P camera. It comes with an embedded Linux operating system, rich software and hardware resources, and development tools, aiming to provide users with a plug-and-play, simple, and efficient AI development experience.

Note

Precautions

- It is recommended to use the original M5 data cable when connecting to a computer, otherwise, it may cause a crash. Loose data cables may also cause crashes.
- It is recommended to use Edge and Chrome browsers, as Firefox may cause freezing or unstable video playback.

Features

- SigmaStar SSD202D
- Dual-core Cortex-A7 1.2GHz processor
- 128MB DDR3
- 512MB NAND Flash
- GC2145 1080P Colored Sensor
- Built-in microphone
- Wi-Fi 2.4GHz

Includes

- 1 x UnitV2
- 1 x 32GB microSD card
- 1 x USB Type-C cable (50cm)
- 1 x Stand
- 1 x Back clip

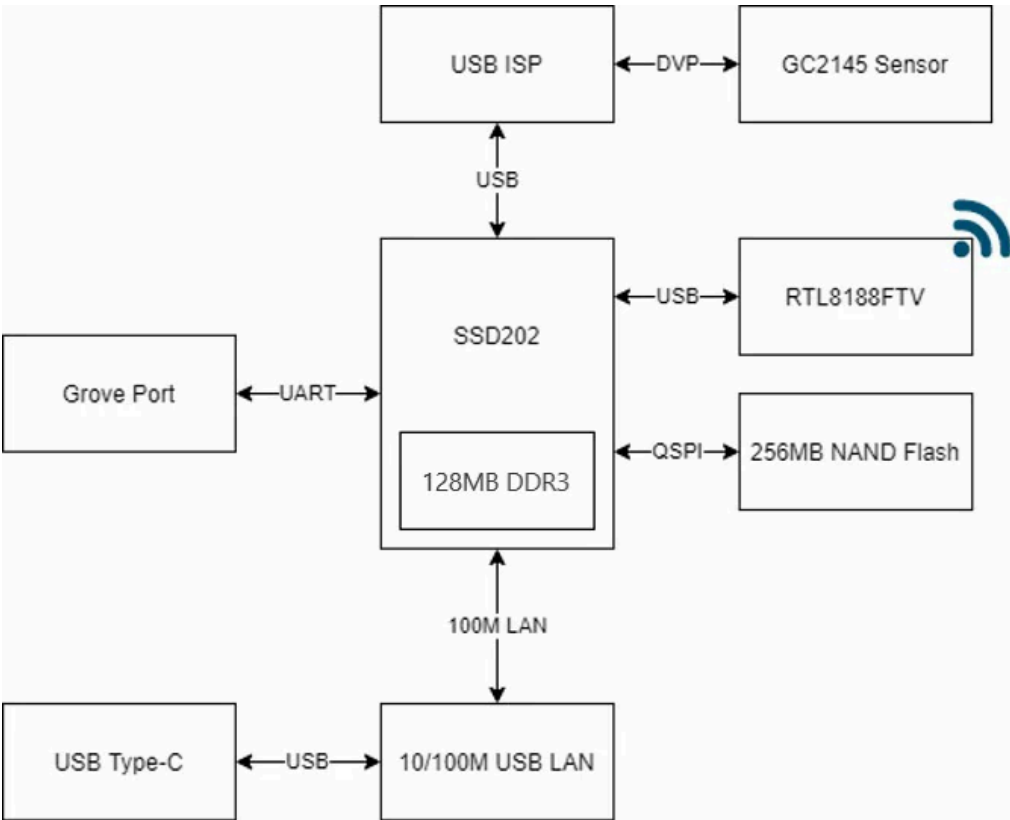
Applications

- AI recognition function development
- Industrial visual recognition and classification

Specifications

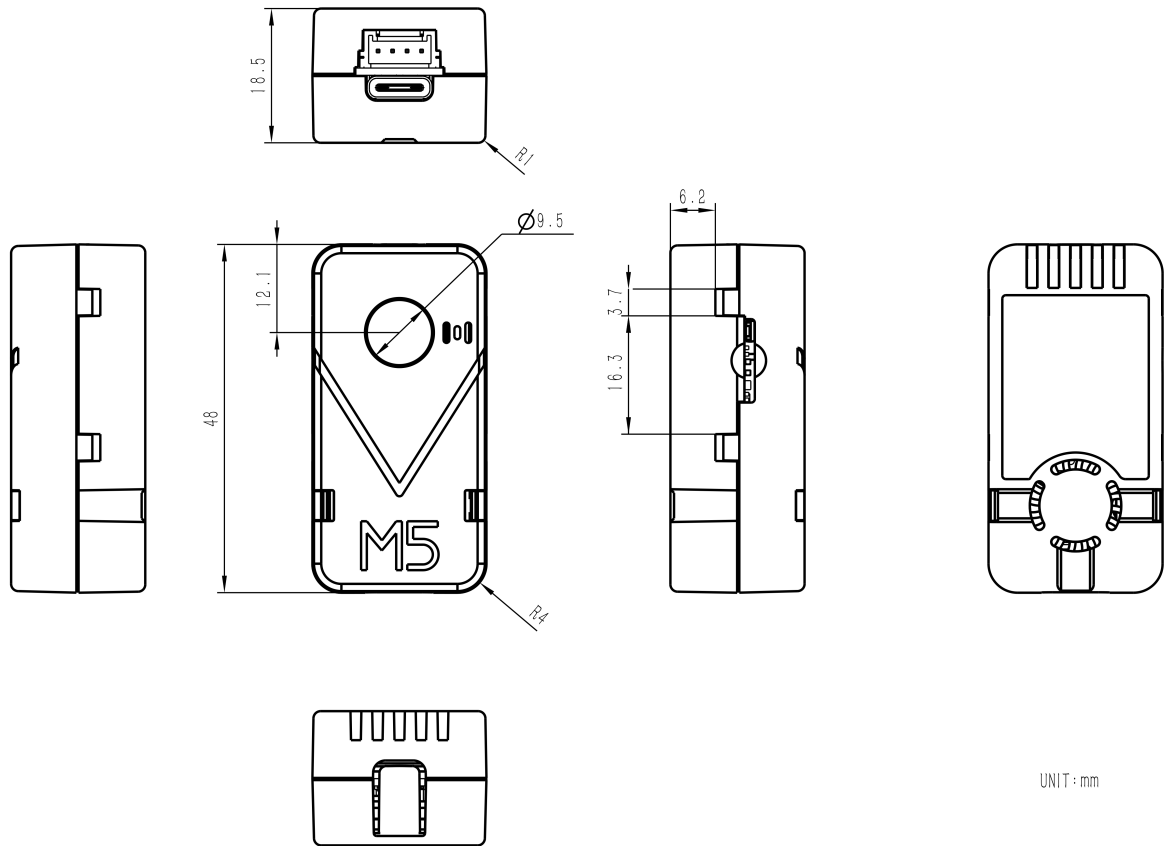
Specification	Parameters
SigmaStar SSD202D	Dual Cortex-A7 1.2GHz Processor
Flash	512MB NAND
RAM	128MB-DDR3
Camera	GC2145 1080P Colored Sensor
Lens	FOV 68°, DOF= 60cm- ∞
Input Voltage	5V @ 500mA
Hardware Peripherals	Type-C x1, UART x1, TFCard x1, Button x1, Microphone x1, Fan x1
Indicators	Red, White
Wi-Fi	150Mbps 2.4GHz 802.11 b/g/n
Operating Temperature	0 ~ 60°C
Shell Material	Plastic (PC)
Product Size	48.0 x 18.5 x 24.0mm
Product Weight	18.0g
Package Size	157.0 x 38.0 x 38.0mm
Gross Weight	62.0g

Schematics



Model Size

- [UnitV2 Model Size PDF](#)
- [UnitV2 STAND Model Size PDF](#)
- [UnitV2 BACK-BRICK Model Size PDF](#)



Structure

- [UnitV2 Structure Files](#)

Softwares

Quick Start

- UnitV2 integrates a basic AI recognition service developed by M5Stack, with built-in multiple recognition functions (such as face recognition, object tracking, etc.), which can quickly help users build AI recognition applications.
- All functions! Plug and play! UnitV2 has a built-in wired network card. When you connect it to a PC via the Type-C interface, it will automatically establish a network connection with UnitV2. It can also be connected and debugged via Wi-Fi, offering high flexibility.
- UART serial output, all recognition content is automatically output in **JSON** format, making it easy to call.
- [Built-in Recognition Function Tutorial](#)
- [V-Training Online AI Model Training Service](#)
- [Jupyter Notebook Development Tutorial/Example](#)
- [SSH Connection & WIFI Configuration](#)
- [Firmware Update Tutorial](#)

SDK

- [UnitV2Framework](#)

Arduino

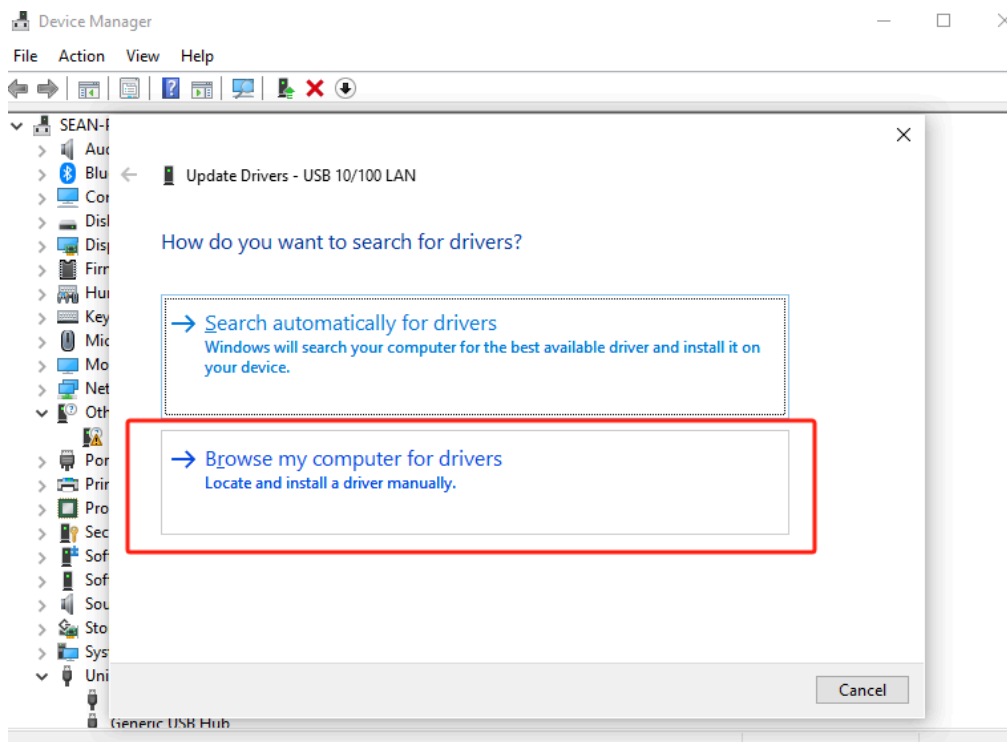
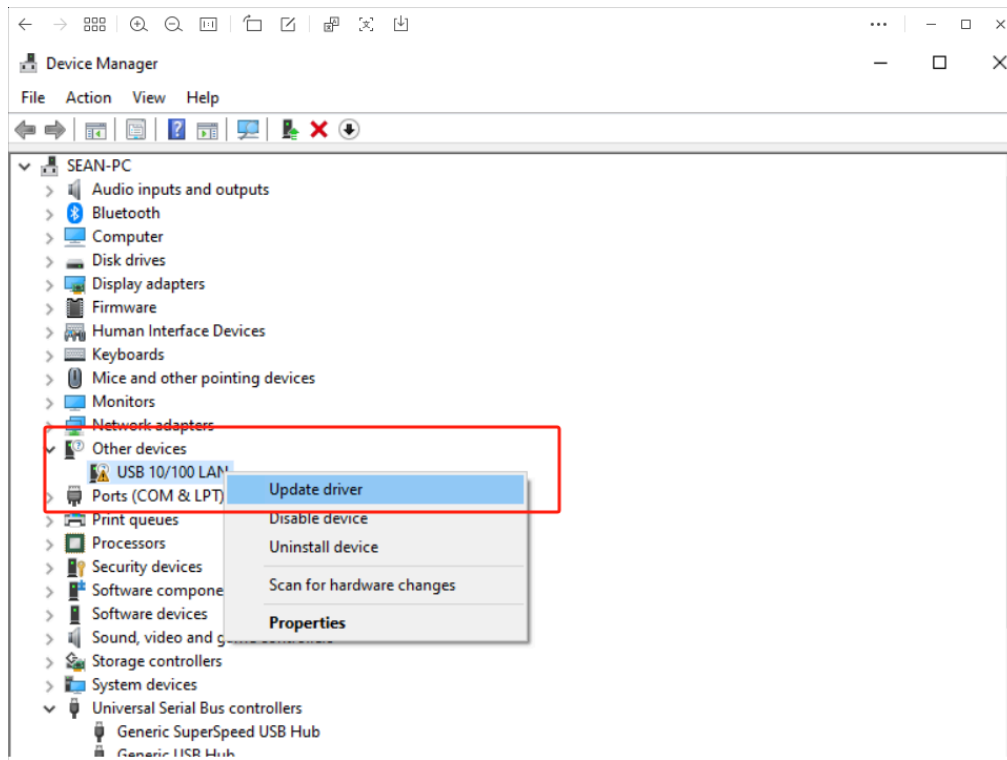
- [UnitV2 Arduino Tutorial](#)

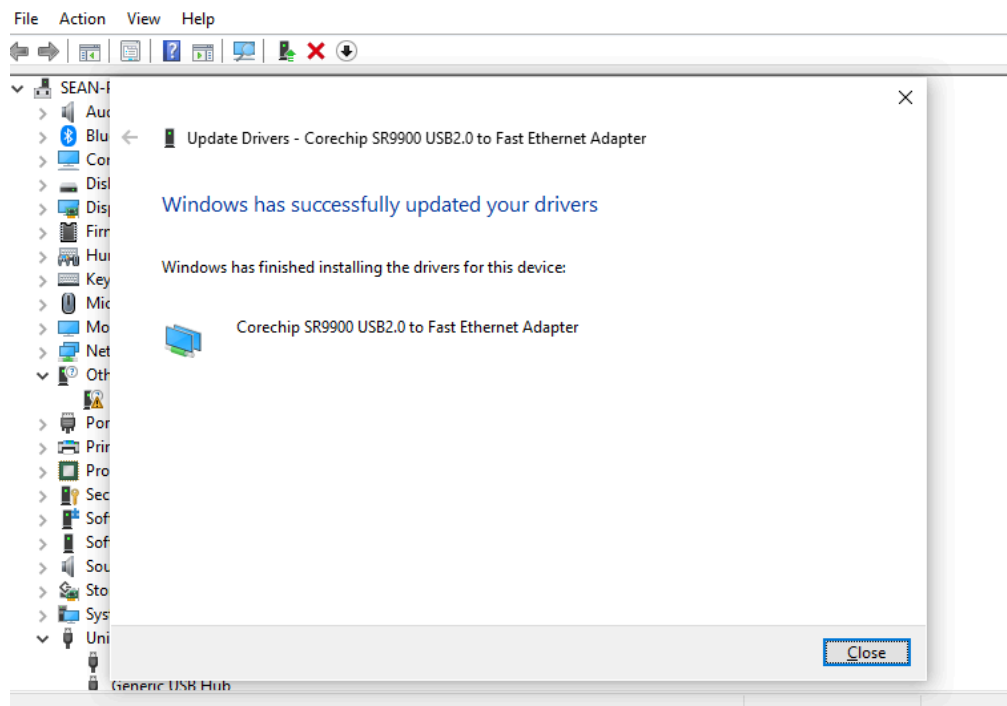
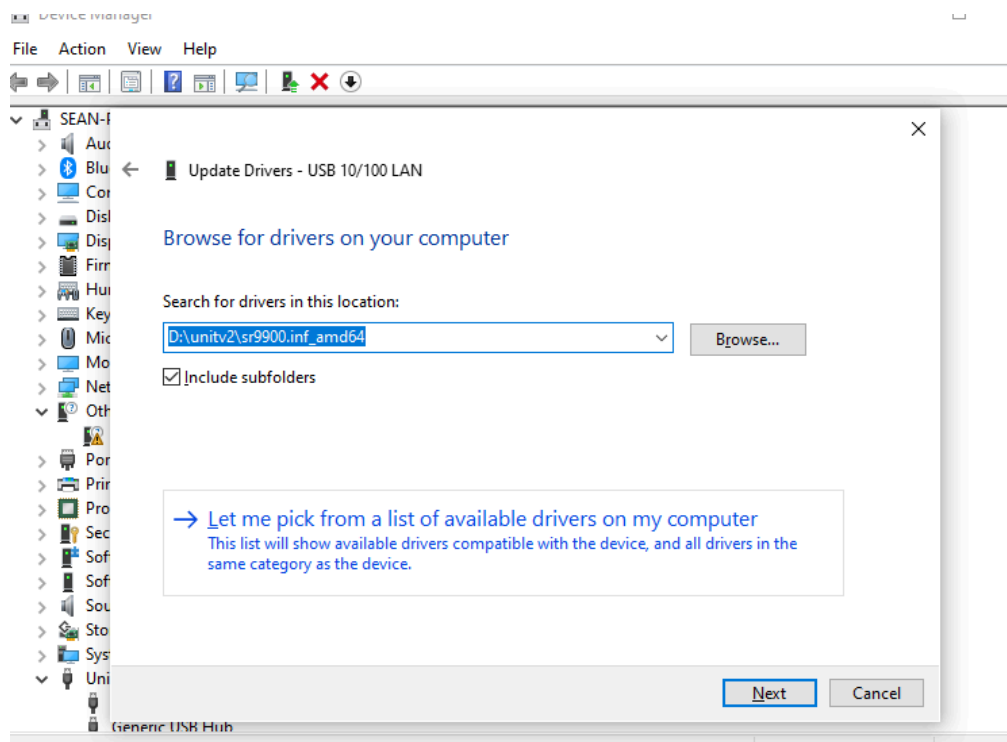
USB Driver

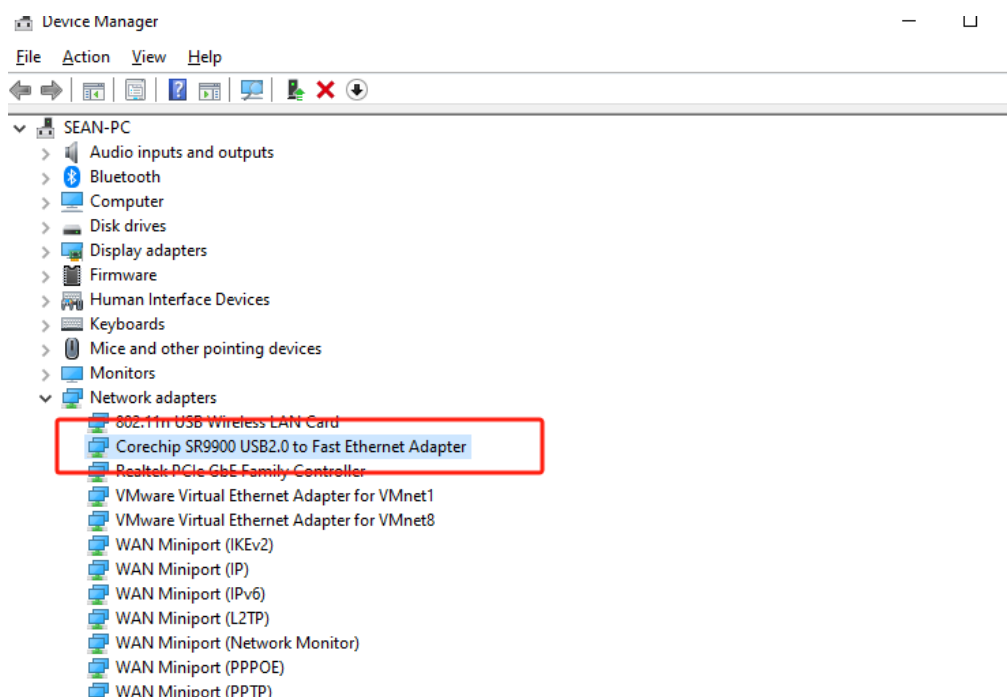
Driver Name	Download Link
SR9900_Windows	Download
SR9900_MacOS	Download

For Windows10

- Extract the driver package to the desktop path -> Go to Device Manager and select the currently unrecognized device (named **USB 10/100 LAN** or containing **SR9900**) -> Right-click and select custom update -> Select the path where the package was extracted -> Click confirm and wait for the update to complete.







For MacOS

- Extract the driver package -> Double-click to open the SR9900_v1.x.pkg file -> Follow the prompts to install. (The package includes a detailed PDF guide for driver installation.)
- After installation, if the network card does not work properly, you can open the terminal and use the following commands to re-enable the network card.

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

Other



Object Detection using M5Stack UnitV2 and Edge Impulse

Use the latest Linux AI smart camera UnitV2 from M5Stack to build a simulated industrial application scenario for defective product screening.

Video

UnitV2 Built-in Functions Unboxing and Usage

[UnitV2_video_en.mp4](#)

UnitV2 Application Scenarios

[UnitV2_video_release.mp4](#)

Product Comparison

Specification			
	UnitV2	UnitV2-M12	UnitV2-USB
Lens Configuration	Standard focal length (FOV 68°)	Standard focal length (FOV 85°) + Wide-angle focal length (FOV 150°)	No lens, USB-A universal interface, supports connection to various UVC cameras
CMOS	GC2145	GC2053	/

To compare information on the UnitV series products, you can visit the [Product Selection Table](#), check the target products, and get the comparison results. The selection table covers key information such as core parameters and functional features, and supports comparison of multiple products simultaneously.