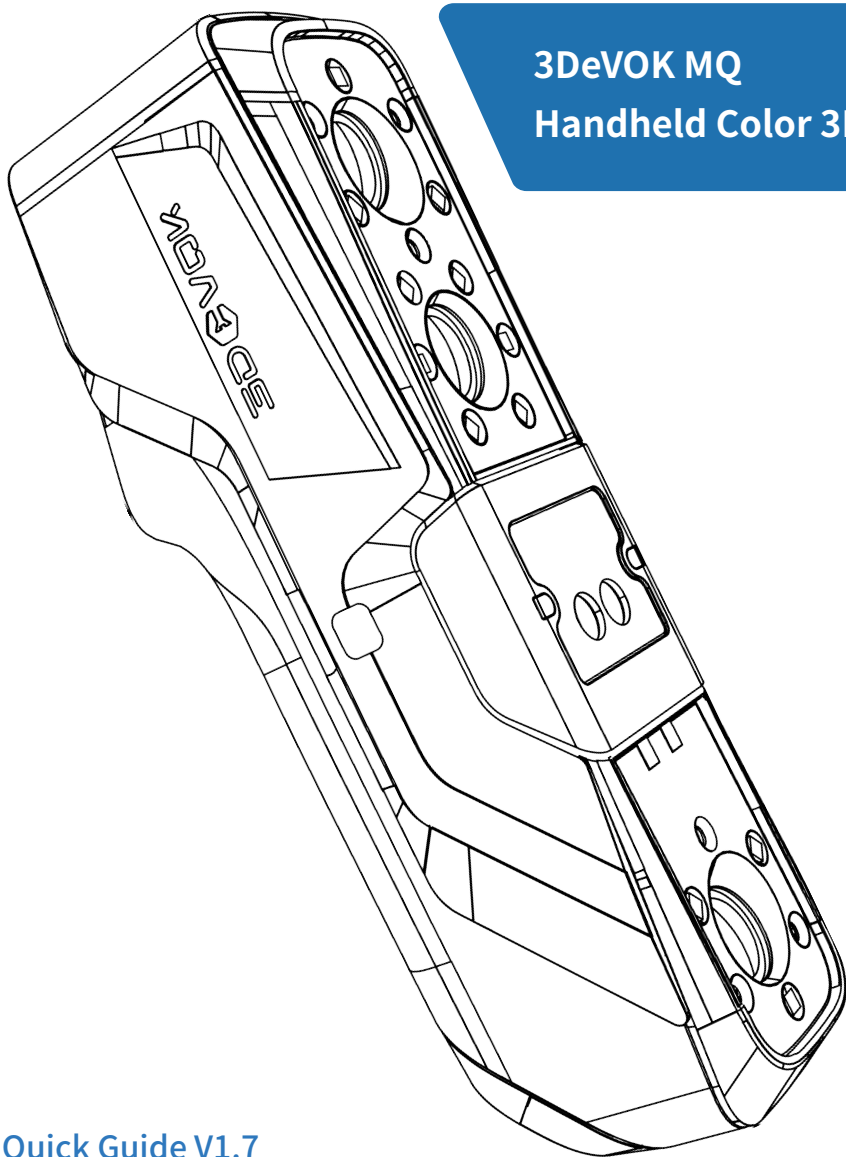


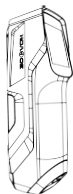


3DeVOK MQ Handheld Color 3D Scanner

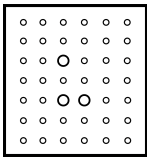


Quick Guide V1.7

1. Product List



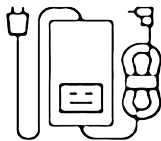
3DeVOK MQ



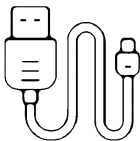
Master Plate



Grey Card



Power Cable (with plug),
Power Adapter



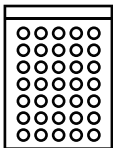
Power Data Cable



Stickers for Hybrid Alignment



Handheld Storage Bag



Reflective Markers



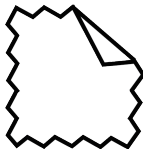
USB Stick
(with Scanning Software)



Scanning Sample
(for Detail Verification)



Lanyard



Dust-free cloth

2. Technical Parameter

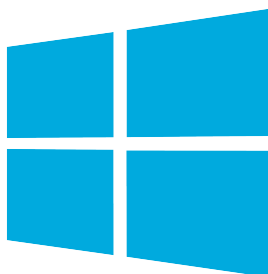
Light Sources	22 Infrared Laser Lines (invisible)	Infrared Vcsel Structured Light (invisible)
Class of Lasers	Class I (Eye-safe)	
Scan Mode	Infrared Laser (Supports markerless and invisible-light scanning)	Infrared Linear-array Structured Light (Speckle) (Supports markerless, invisible-light, fine scanning, and rapid scanning at ultra-long distance range and ultra-large FOV)
Basic Accuracy*	Up to 0.08 mm	
Wireless Scanning	Support (with an optional handle)	
Resolution	0.1 - 5 mm	Speckle Scan: 0.2-5 mm, Fine Scan: up to 0.1mm
Alignment Mode	Hybrid Alignment (Marker&Texture&Feature), Hybrid Alignment (Marker&Feature), Marker Alignment, Texture Feature Alignment and Geometric Feature Alignment	
Ability to Capture Texture	Yes	
Scanning Distance	150 - 1000 mm	150 - 1500 mm
Field of View	140 mm × 140 mm - 490 mm × 490 mm	50 mm × 75 mm - 1100mm × 1000mm
Scanning Frame	Up to 80 FPS (Marker Alignment) Up to 30 FPS (Hybrid Alignment)	Up to 30 FPS
Output Formats	*.obj, *.stl, *.ply, *.asc, *.mk2, *.txt, *.epj, *.apj, *.spj, *.map, *.sk	
The Ability for 3D Printing	Supports .stl, .obj and other formats	
Working Temperature Range	0 - 40°C	
Working Humidity Range	10% - 90%RH (Non-condensing)	

2. Technical Parameter

Interface	USB 3.0
Scanner Dimensions & Weight	Dimensions: 215 mm × 73 mm × 53 mm; Weight: 550 g
Power Source	DC: 12 V, 5.0 A

*Laboratory theoretical accuracy test results are subject to uncertainty errors. The actual value may be affected by external factors (e.g., temperature, humidity, the scanned object, scanning techniques, etc.)

3. Recommended Configuration of PC



OS

Win10/Win11, 64-bit

CPU

i7-13650HX and above

RAM

32GB and above

Graphics Card

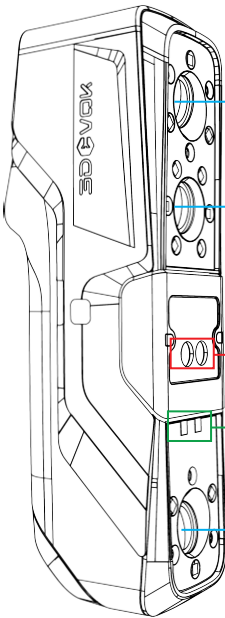
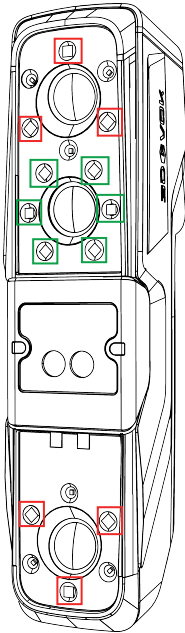
NVIDIA discrete graphics card
NVIDIA RTX3060 and above

VRAM

6GB and above

4. Device Introduction

-  Infrared Laser Fill Light
-  Color Camera Fill Light



Black-and-white Camera

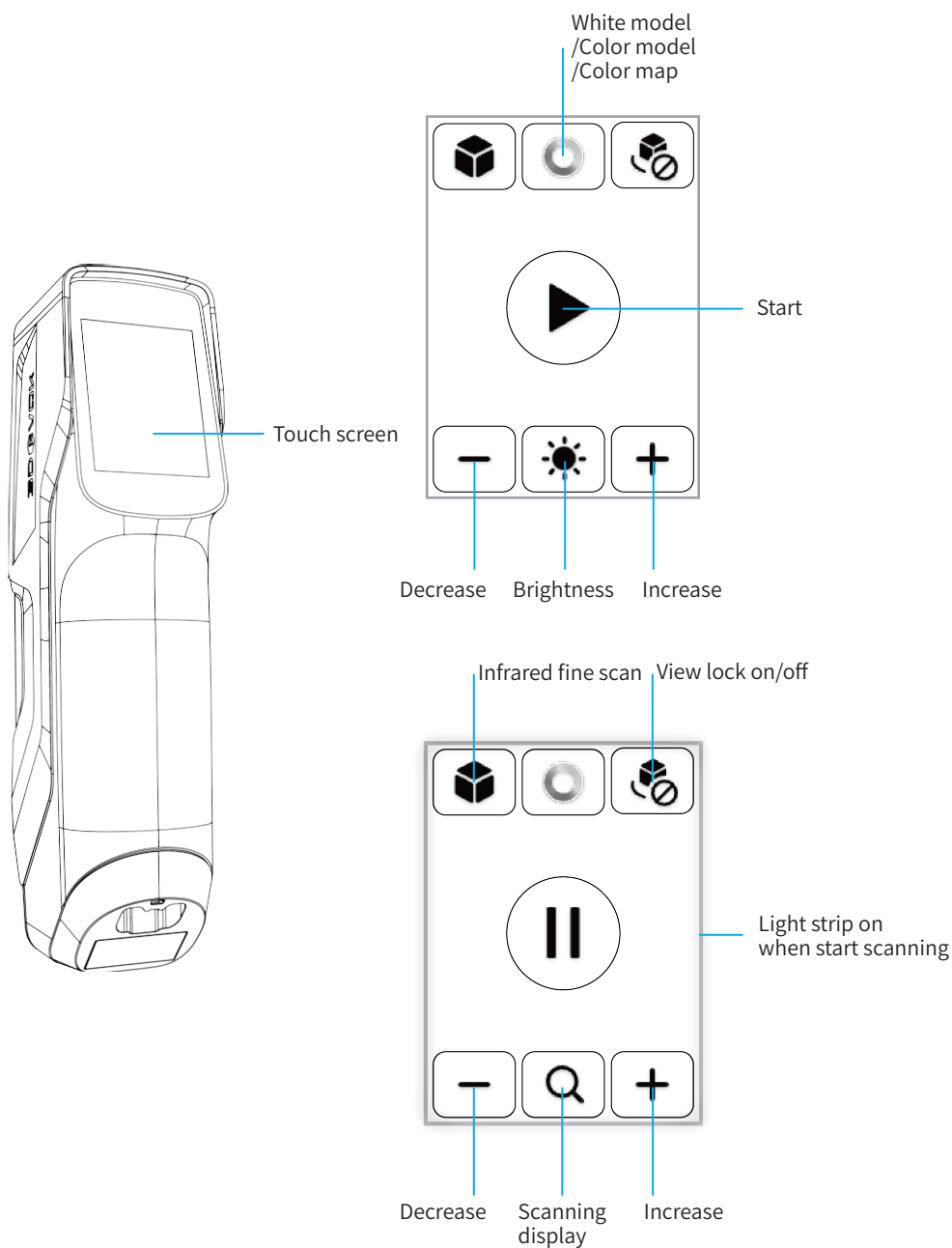
Color Camera

Infrared Laser Emitter

Infrared VCSEL Emitter

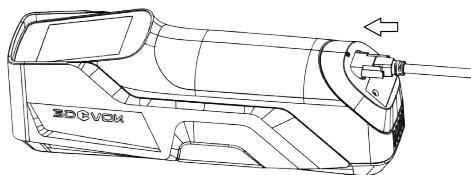
Black-and-white Camera

4. Device Introduction



5. Device Connection

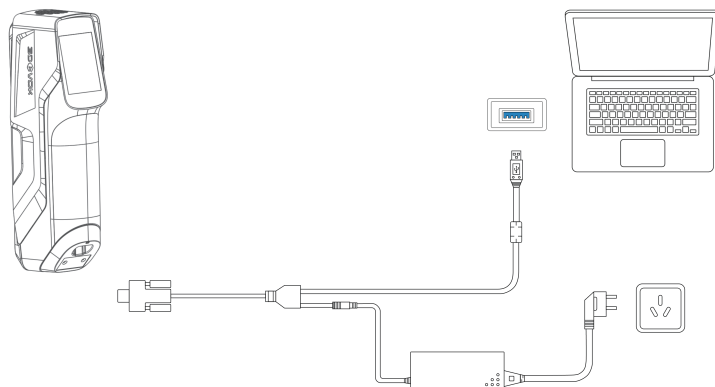
1. Connect one end of the USB cable to USB 3.0 port (the blue port) of PC (if it is a desktop, it should be plugged into the USB 3.0 port at the back of the chassis), then connect the other end to the bottom of the device (in the direction of the arrow), and tighten the screw.



2. Connect the power cable and the power adapter to the power source, and connect the round plug at the end of the power adapter to the round connector of the USB cable (as shown in the figure below).



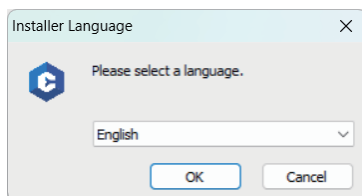
3. The connection of device, data cable, power adapter, power cable, and PC is shown below.



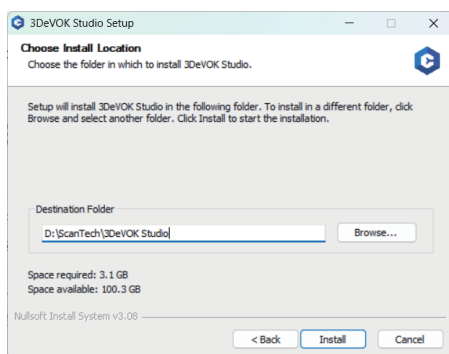
4. After connection, open the 3DeVOK Studio software. When  **Device Connected** appears at the top left of the homepage, the device is successfully connected to PC.

6. Software Installation

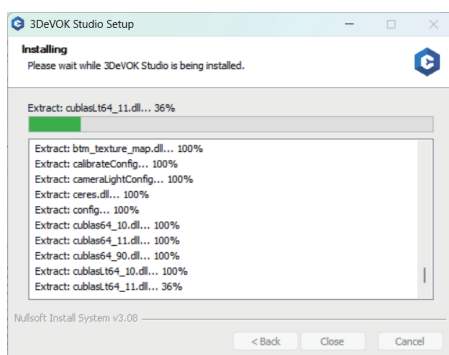
1. Double click the 3DeVOK Studio.exe, select the language and click "OK".



2. Select the destination folder and click "Install".



3. Wait for the installation to complete, then click "Close".



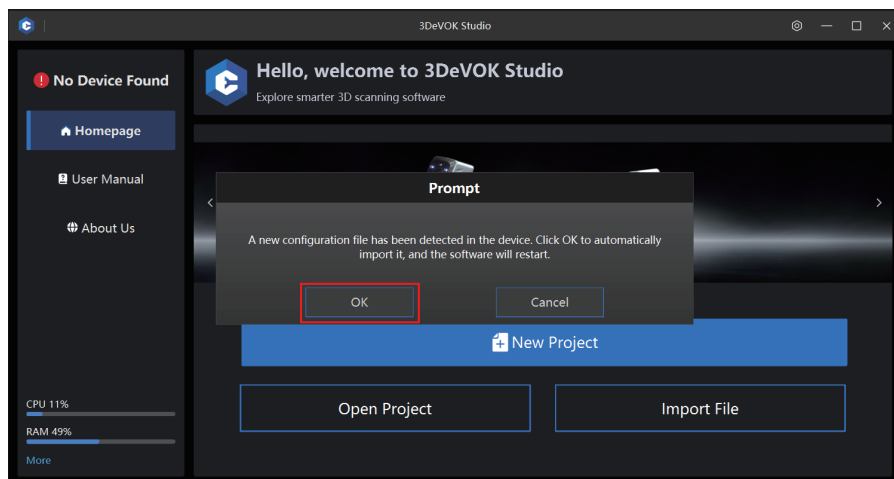
Warning:

Ensure that all the security applications are terminated prior to software installation and throughout the scanning procedure to prevent potential unforeseen errors.

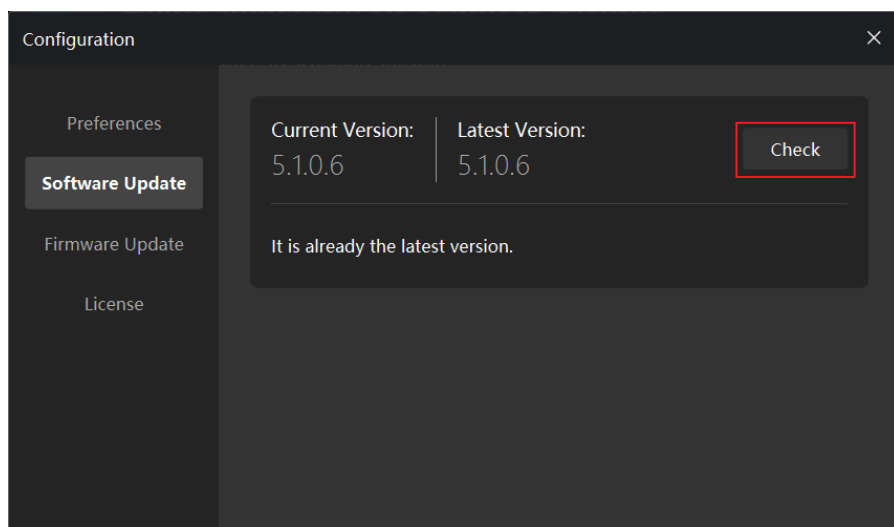
It is advisable to install the software on a drive with ample storage capacity, such as the "D" drive, to optimize performance and resource allocation.

7. License Activation

1. Open the 3DeVOK Studio software, and it will first prompt for the import of a new configuration file. Click the "OK" button, the software will automatically import the configuration file and restart for the update. After the restart, the new configuration file will be applied to the device.



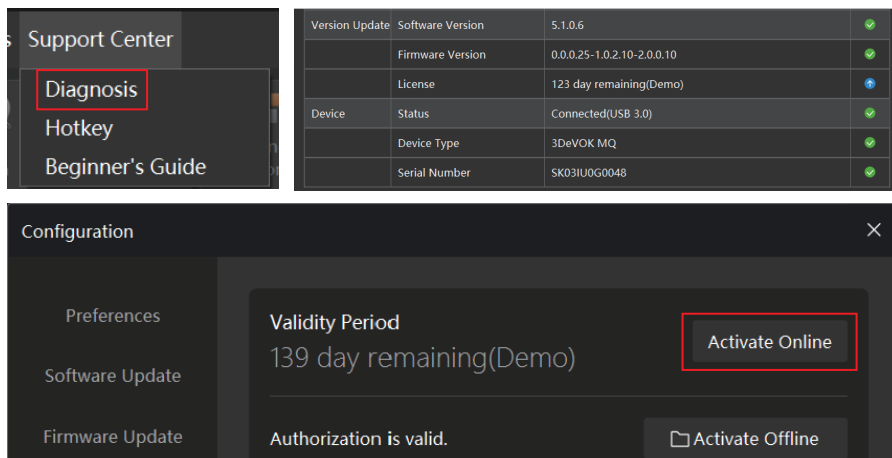
2. Open the software and check if it is up to date when connected to the internet. To update, go to  and click the "Software Upgrade" to check for and install the latest version, or get the installer from "Support" > "Download Center" at www.3devok.com.



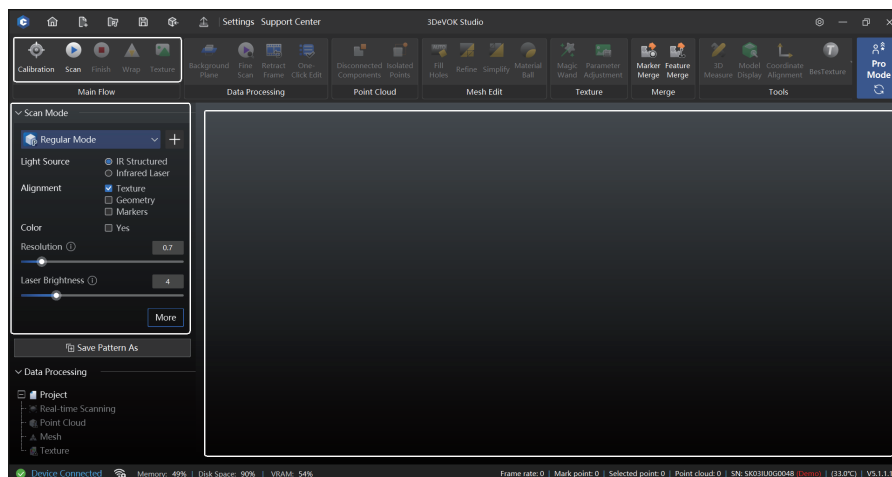
7. License Activation

3. Import the activation file before first scan, and make sure the PC is properly connected to the internet

during activation. Click "Support Center" > "Diagnosis", and click  in the "License" session. Click "Activate Online", and then restart the software.



4. After the update, the device is successfully connected, and the software interface is displayed below. The scan mode can be selected at the left sidebar (left white box), with the main flow (upper white box) displayed at the top (Calibration-Scan-Finish-Wrap-Texture). The right-side white box is the live scanning interface. Once scanning starts, a toolbar appears below, and the distance indicator on the right shows the live scanning distance. Keep the indicator within the optimal green range during scanning.

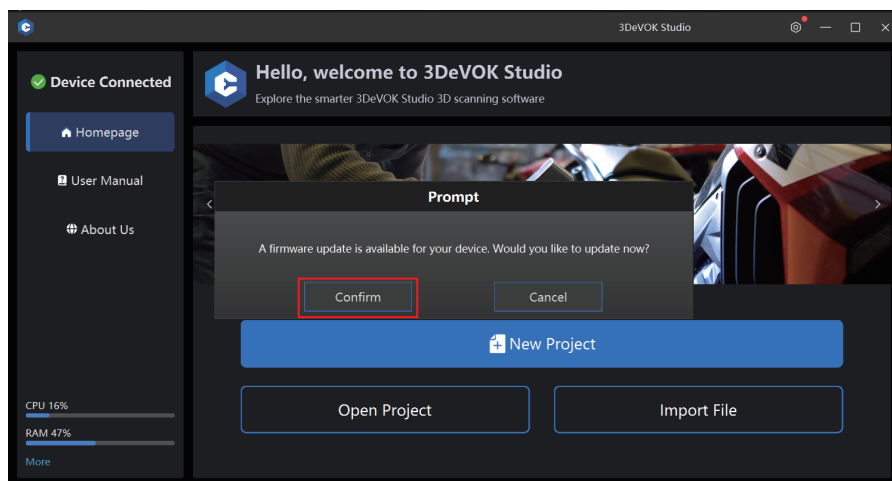


Note: The actual user interface may differ slightly from what is shown in this guide. Please refer to the version of the software in the USB stick.

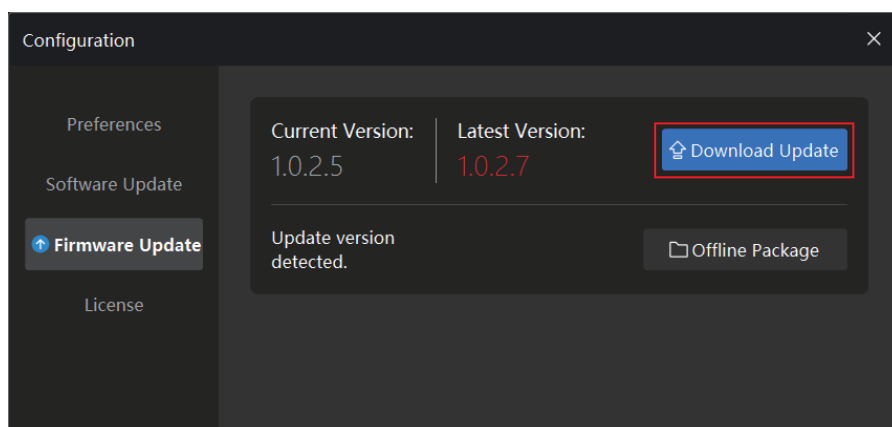
8. Firmware Update

Firmware Update

1. Connect the device. When online, the software will automatically check whether the device's firmware have been updated to the latest versions, and display corresponding prompts. The settings menu in the top-right corner of the homepage will also show a red dot. Click "Confirm" to go through the update process.



2. Click "Download Update", and the software will automatically download and import the firmware installation package. Wait for the successful instructions, then the device can be used normally.



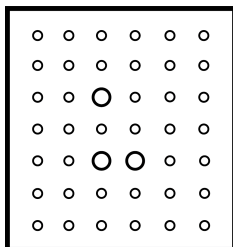
3. After the authorization update, the device is in normal operation.

9. First Scan

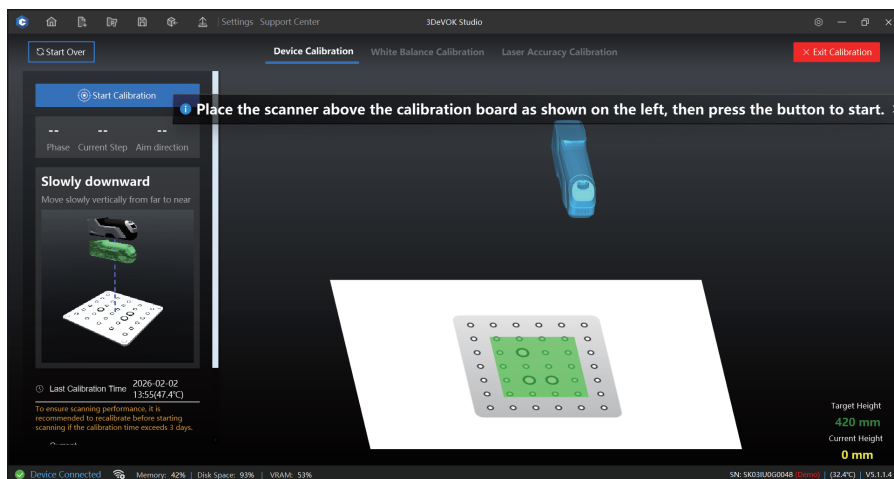
Device Calibration

1. Take out the master plate from the bag, place it on a flat and light-color table, as shown in the figure below.

- ①The master plate must be positioned according to the direction shown below and the software UI guidance. Incorrect orientation will cause calibration lag.
- ②Do not place extra markers near the master plate. Extra markers will disrupt calibration and cause lag.
- ③Maintain a clean environment around the calibration board and its accessories. Remove all clutter or extraneous objects from the calibration area.



2. Click  and press the "Start Calibration" button on the left or tap the ▷ button on the scanner's touch screen to proceed with the calibration according to the guided steps (as shown below).



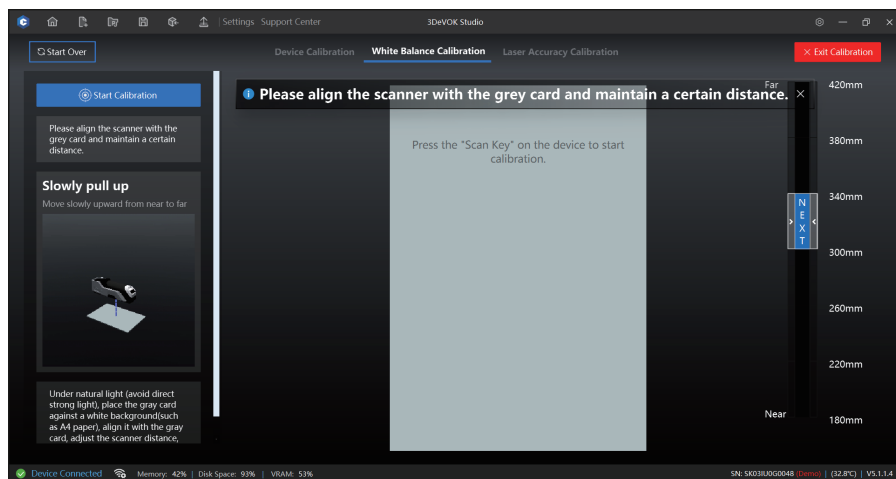
3. After the successful calibration prompt, the device can achieve optimal scanning results.

9. First Scan

Color Camera Calibration

When higher color accuracy is required, perform white balance calibration. The steps are as follows:

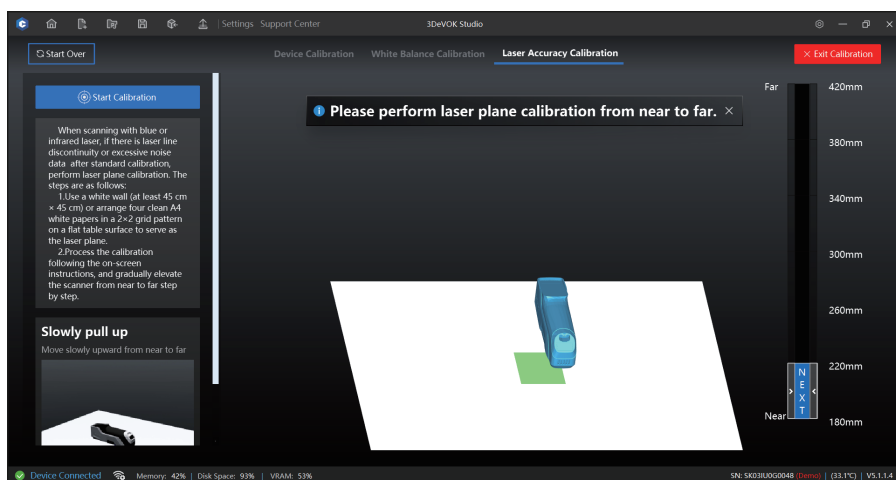
1. Take out the grey card from the case and place it face up on a light-colored background surface.
2. Press the "Start Calibration" button on the left or tap the ▷ button on the scanner's touch screen, and follow the on-screen instructions to complete the calibration.



Laser Accuracy Calibration (Not Mandatory)

After standard calibration, if there is laser line discontinuity or excessive noise data during scanning, the laser accuracy calibration of the device needs to be performed. The steps are as follows:

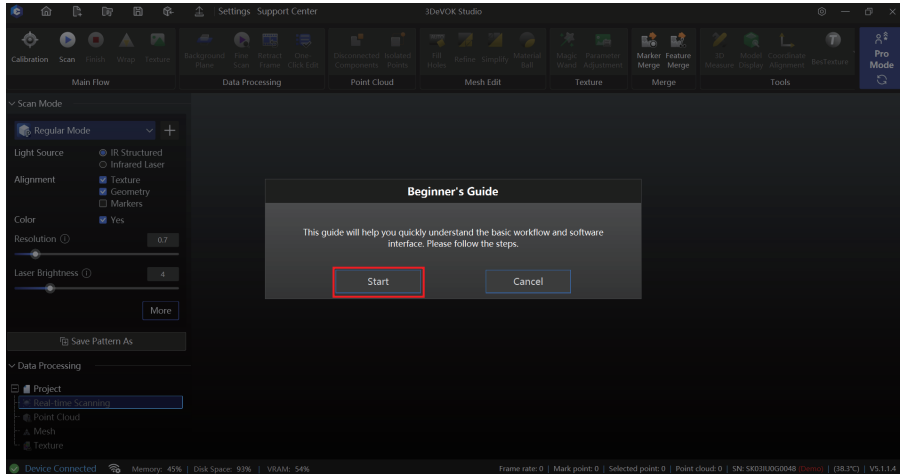
1. Use a white wall (at least 45 cm × 45 cm) or arrange four clean A4 white papers in a 2 × 2 grid pattern on a flat table surface to serve as the laser plane.
2. Click the "Start Calibration" button on the left or tap the ▷ button on the scanner's touch screen, and follow the on-screen instructions to finish the laser accuracy calibration.



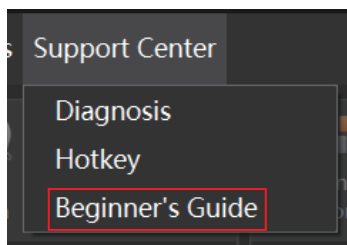
9. First Scan

Beginner's Guide

On first software launch, a Beginner's Guide pops up. Click "Start" to learn the scan workflow.



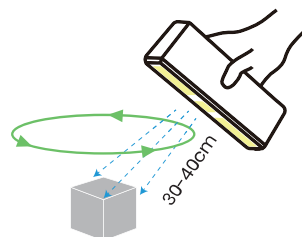
If the guide is exited, go to "Support Center" > "Beginner's Guide" to restart it.



First Scan

1. Select the scan mode, then click  to start, or tap

the ▷ button on touch screen to begin scanning. Keep the device at the optimal scanning distance and scan the object at different angles until the object's color map turns green.



9. First Scan

Mode Guide

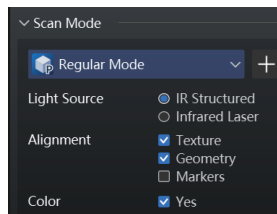
Light Source:

- ①IR Structured Light: Suitable for human body scanning, as well as fast scanning of medium-to-large objects.
- ②Infrared Laser: Suitable for scanning red, yellow, green, and other colored objects without markers, offering better detail than structured light.

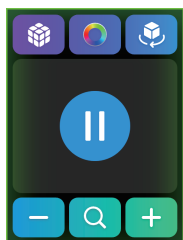
Alignment:

Texture+Geometry: Suitable for objects with continuous and non-repetitive geometric or texture features, such as sculptures and artistic ornaments with complex surfaces.

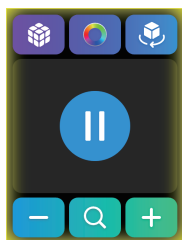
Marker: Suitable for industrial parts and industrial design products (regular shapes, large curves), especially for black or reflective objects.



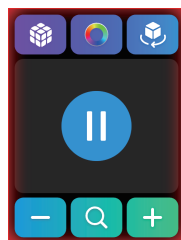
During scanning, a dynamic interactive light strip appears on the scanner's touchscreen based on the scanning distance. The specific displays are as follows:



Moderate



A bit far



Too far/Tracking lost

2. After scanning, click



to process and generate the optimized point cloud data.

3. After removing the excessive 3D point cloud data, click



to process mesh data. After

meshing, click



to export the model in formats such as STL or OBJ. If the data is in color, click

the



to export it in OBJ format (including MTL and PNG files).

For more tutorials on 3DeVOK products and software updates,
please visit the official website:
<https://www.3devok.com/>



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After-sales Tel: +86 400 880 8059 ext. 2

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