



For More Shining Ideas

EinScan-Pro

Multi-functional Handheld 3D Scanner



Quick Start Guide

Getting Started with EinScan-Pro

Preparation

Device list

Basic Pack

① Scanner head	② Power adapter	③ Power cable
④ USB aviation cable	⑤ Calibration board	⑥ Calibration board support
⑦ Markers	⑧ Quick guide	⑨ USB flash drive

Industrial Pack (Optional)

Turntable	Tripod	Scanner head tray
USB cable	Power adapter	Power cable

Color Pack (Optional)

Texture camera

	PC requirement	PC recommended requirement
OS	Win 7/8/10 64bit	
Output	Two USB 2.0 or 3.0	
RAM	8GB or more	16GB
Graphic Card	Only NVIDIA GTX series are supported, GeForce GTX660 or higher	NVIDIA GeForce GTX960
Graphic Memory	2G or more	
CPU	i5 or higher	i7

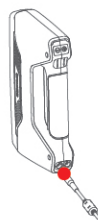
Installation Instructions

Hardware Installation

1. Basic Pack (For handheld 3D scanning)

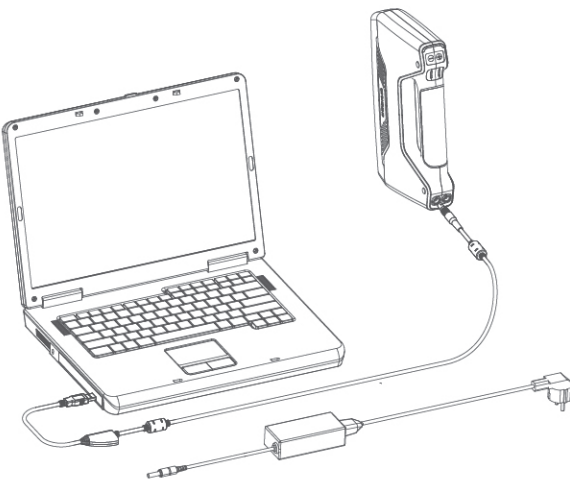
Plug the USB aviation cable into the PC port of the scanner head with the red dot on the top.

STEP 01



STEP 02

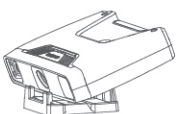
Use the USB aviation cable to connect the power, computer and scanner.



2. Industrial Pack (For fixed 3D scanning)

Fasten the scanner head tray onto the tripod and place the scanner on the tray

STEP 01

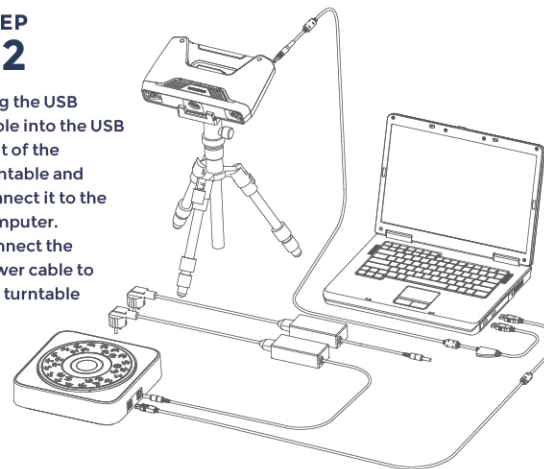


Installation Instructions

Hardware Installation

STEP 02

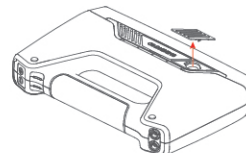
Plug the USB Cable into the USB port of the turntable and connect it to the computer. Connect the power cable to the turntable



3. Color Pack (For color texture capture)

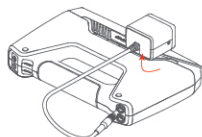
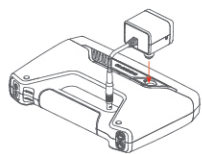
Remove the cache on the top of the scanner.

STEP 01



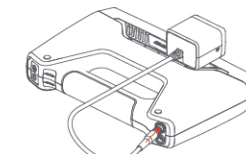
STEP 02

Screw the color camera into the slot of the scanner head with the Allen key in a clockwise direction.



Plug the cable into the camera port of the scanner.

STEP 03



4. Environment

Avoid direct sunlight or environments that are too bright, make sure the table is stable

Software Installation

Download the software and user manual from <http://www.einscan.com/software-download> or find it in the USB flash drive

Run the installer

Double click to run the installer (.exe)

STEP 01



License acquisition

During installation, you need obtain the license file online to activate your scanner.

Make sure the scanner has been connected properly and your computer is networking

STEP 02

Online Activation

STEP 03

Or do local activation and find the license file in the USB flash drive

Local Activation

Note: if you install a second device, the software will automatically find the device and notify the users to activate.

Online Activation

Local Activation

Calibration

Caution

The calibration board needs to be manipulated with caution, stains or scratches on the board will affect the scanning quality.

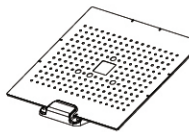
Camera calibration

Use the calibration board support to place the board as indicated on the screen
Hold the scanner horizontally and cover the screen range

STEP 01



STEP 02



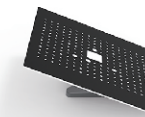
STEP 03



STEP 04



STEP 05



Calibration

HD calibration

Use the white reverse side of the calibration board, hold the scanner parallel to the surface and adjust the distance until you cover all the range



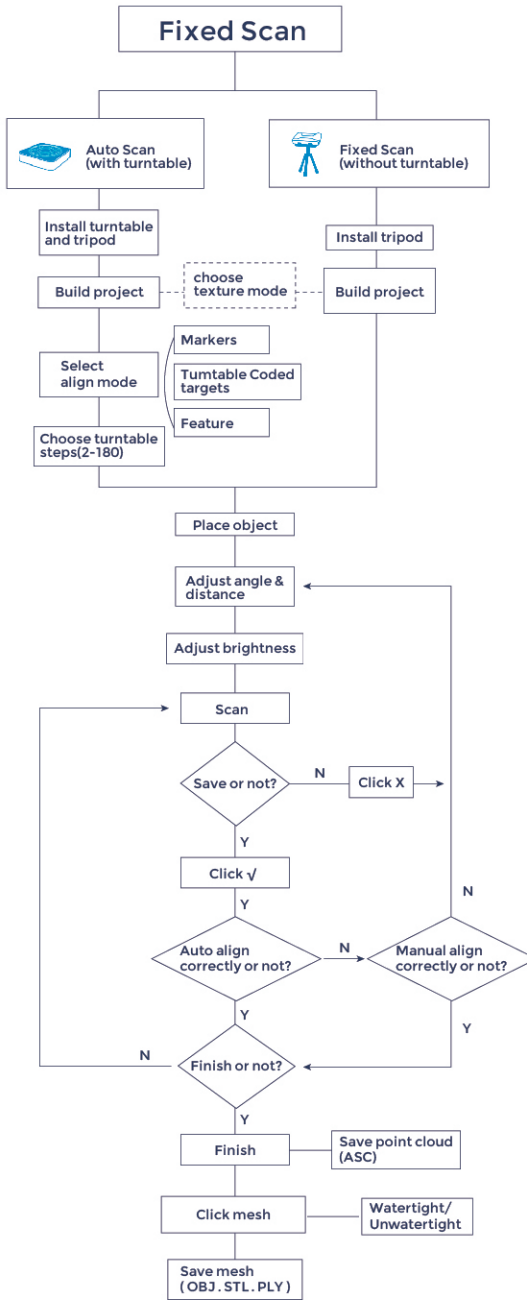
STEP 01

STEP 02

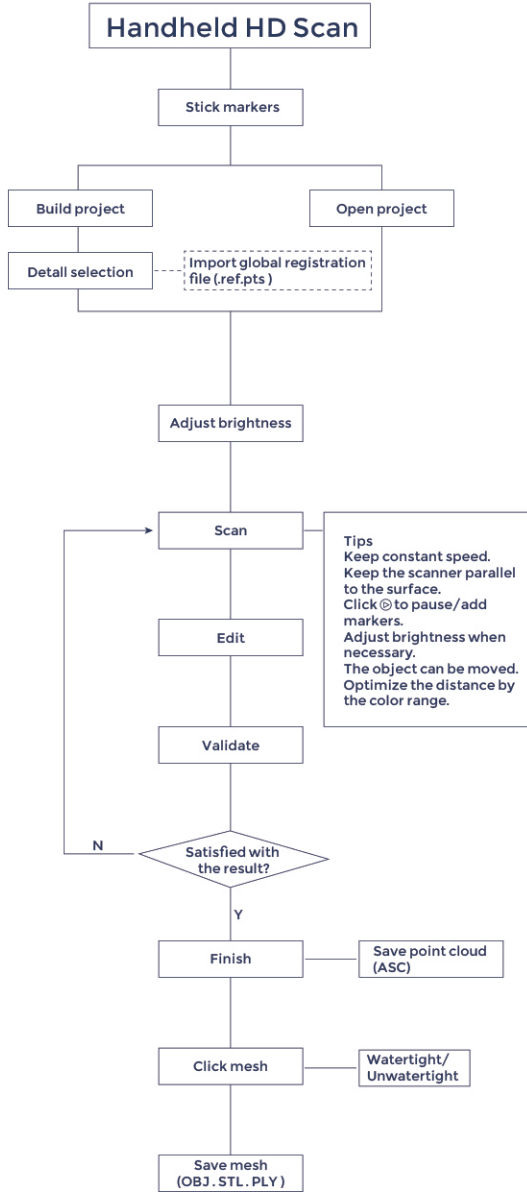
White balance calibration (color pack only)

Use the reverse side of the calibration board (white).
Hold the scanner parallel to the surface and adjust the distance until you find the proper distance.
Hold the position for 1 second.

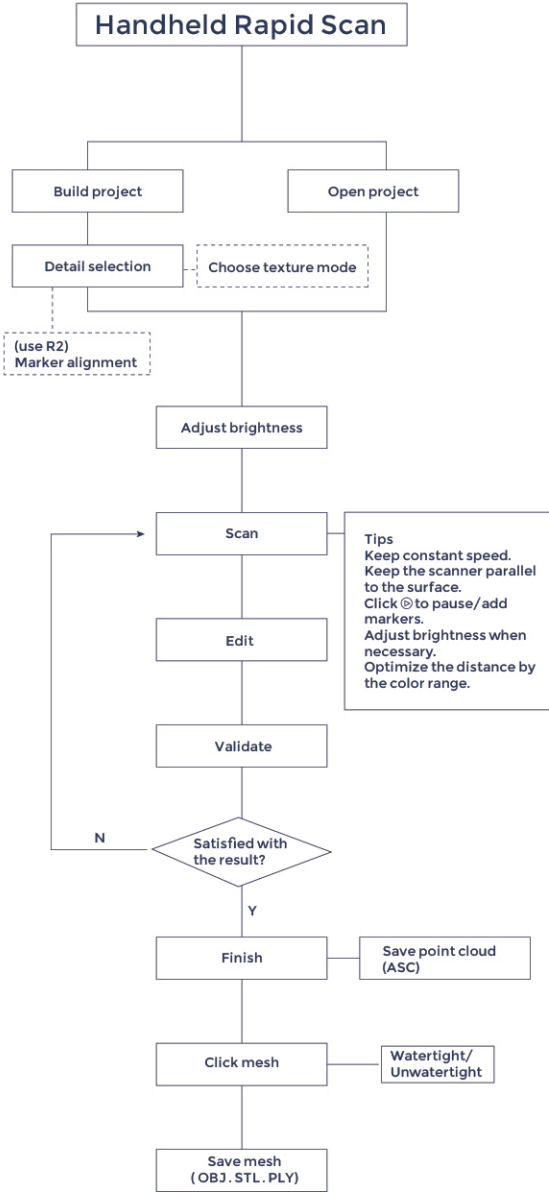
Fixed Scan



Handheld HD Scan



Handheld Rapid Scan



Scanning Tips



Difficult to Scan

- Transparent objects like glasses
- Shining or reflective objects like varnished metal parts
- Dark color object like black keyboard
- Fuzzy objects like hair



Solution

- Spray white powder or bright color paint



Not recommended

- Moving objects
- Hollow pattern object like Eiffel Tower souvenirs

Scan Mode Selection

For object size smaller than 150mm and weight under 5kg
Auto Scan is recommended. It is accurate and automatic scanning. Texture scan is allowed.

For object from 150mm to 1m
Fixed Scan on tripod without turntable is recommended for high accuracy and high level of detailed scan. You will need to move the tripod around the object, or turn the object in different angles to finish the scanning.

HD or Rapid Scan is recommended when scanning speed is requested to be fast.

For object over 1m
HD or Rapid Scan is recommended.

HD scan can obtain higher details but no texture, and markers are needed for alignment.

Rapid Scan helps a faster scan. Texture scan is allowed in this mode.

Summary

Mode	Accuracy (mm)	Point Distance (mm)	alignment
Fixed or Automatic Scan	0.05	0.16	Feature, Markers, Manual, Turntable, Turntable coded targets (industrial pack)
Handheld HD Scan	0.1	0.2-2	Markers
Handheld Rapid Scan	0.3	0.5-2	Feature
R2 under Rapid Scan (optional)	0.1	0.5-2	Markers



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