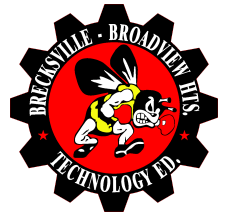


BBHHS Fab Lab

3D Scanner (EinScan Pro)

Tutorial



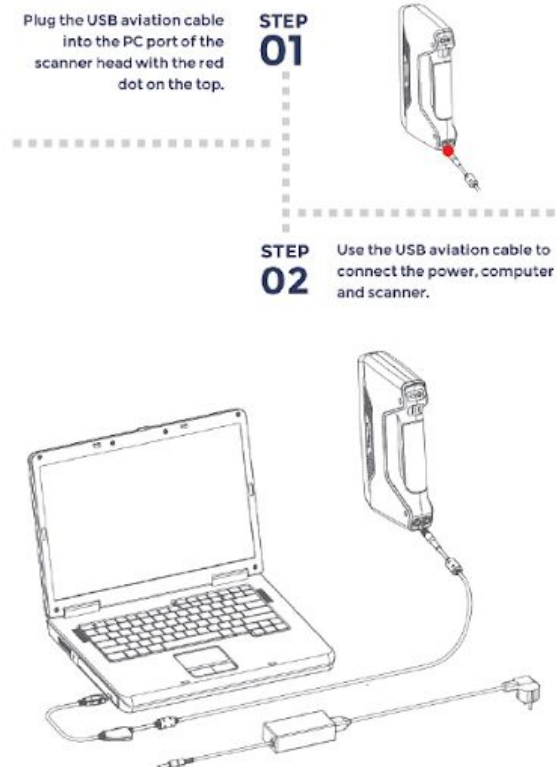
Introduction

The 3D Scanner in the BBHHS fab lab is an EinScan Pro. This machine is used to create a digital 3D model of the object scanned. This Scanner can be mounted in a fixed place or handheld and moved around large objects or people. The digital files created by the scanner can be modified for use in a digital world like a video game or transferred back into the physical world by 3D printing.



Setup Scanner

1. Open EinScan Software and plug the Scanner into the computer using the USB cable. The plug the power cable into the port on the USB cable.



2. For a fixed scan setup the tripod and turn table or mat. For a handheld scan this process is not needed.

3. In the software select the type of scan you would like and follow the prompts on screen to complete the calibration.

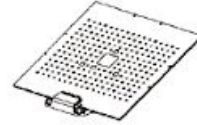
Camera calibration

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



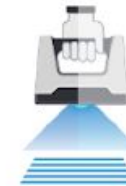
STEP 02



STEP 03



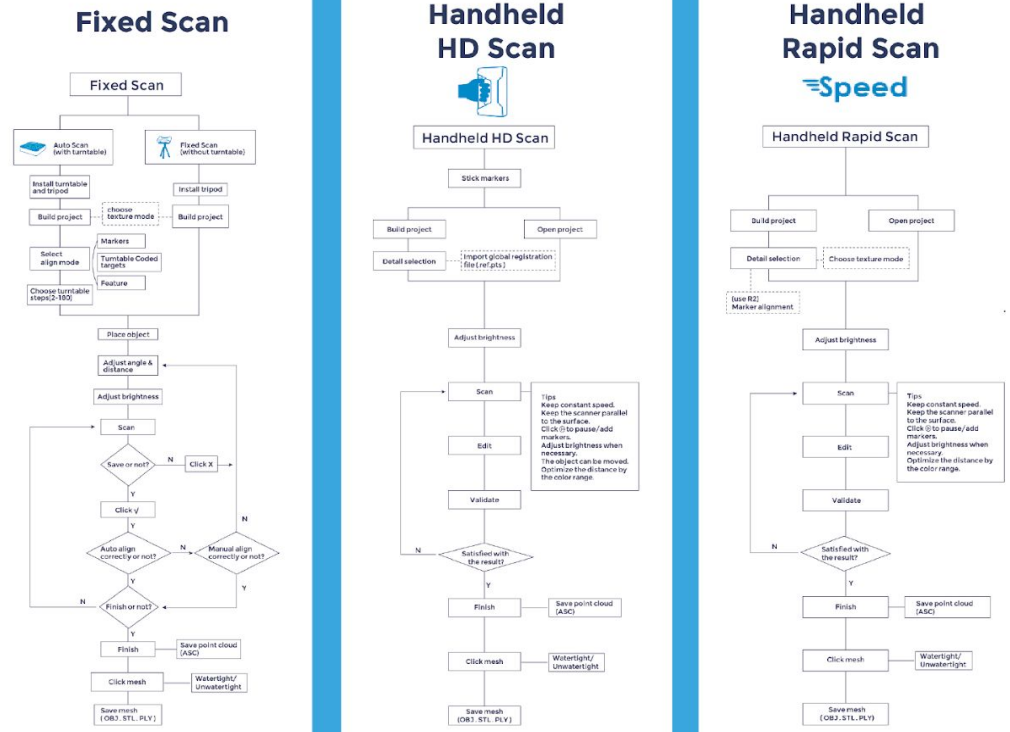
STEP 04



STEP 05



4. Follow the proper steps for completing the scan.



5. Here are some tips for a successful scan.



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 1 m

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.

Format based on Case Western Thinkbox



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