



# HDI Carbon



Quick Start Guide



## Getting Started with the HDI Carbon 3D Scanner

This quick start guide provides you with the resources to get you started on 3D scanning.

The HDI Carbon 3D Scanner comes with:

- 3D scanning software, FlexScan3D
- Physical capturing unit for capturing 3D data (some assembly is required)

### Downloading FlexScan3D Software

The HDI Carbon 3D Scanner is powered by FlexScan3D. You can download the software from the Polyga Accounts Page (<https://www.polyga.com/my-account/downloads/>) or by contacting your distributor. To create a download account, please contact us at: <https://www.polyga.com/contact/>

Instructions for installing and activating FlexScan3D using an installation ID or dongle can be found in the User Manual at <http://www.polyga.com/FS3DHelp/Manual/Default.htm>.

### Assembling the Capturing Unit

Instructions for assembly can be found in this Quick Start Guide.

### Customer Support

For access to support resources and troubleshooting guides, visit <https://www.polyga.com/hdi-support-center/>

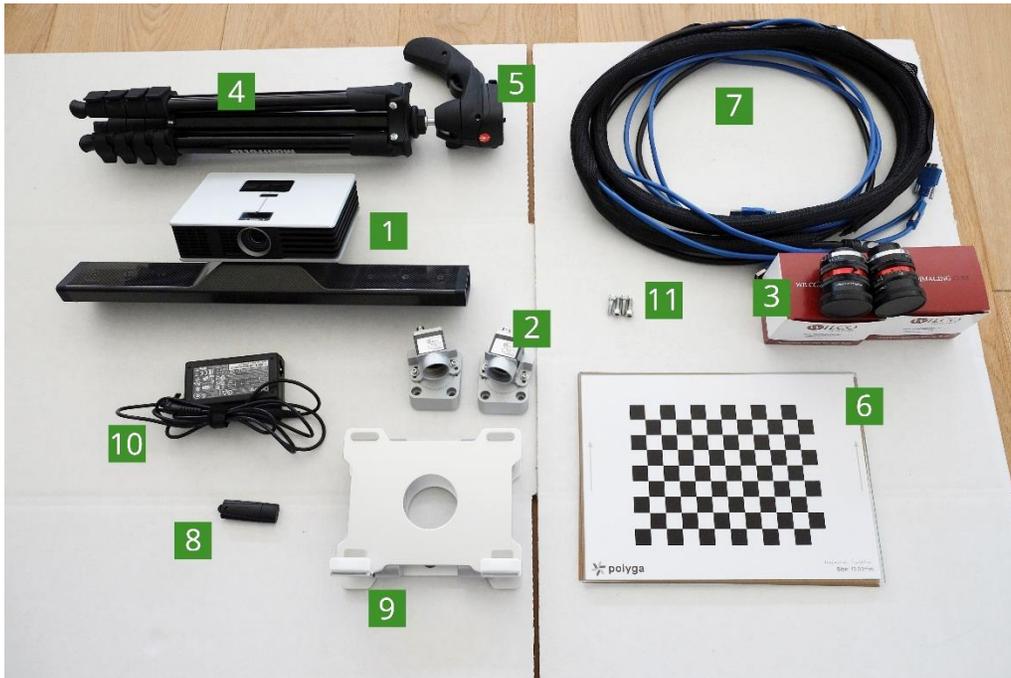
If you have any issues, please contact:

**Email:** [support@polyga.com](mailto:support@polyga.com)

**Web:** <https://www.polyga.com/contact/>



Congratulations on purchasing the HDI Carbon 3D Scanner. Here are the steps to set up the capturing unit for 3D data acquisition. In this tutorial the HDI Carbon R3x 3D Scanner was used. There are slight variations to the instructions depending on which model you have purchased. Please see the following instructions to assemble your 3D scanner, most of which will be pre-assembled.



When you receive your HDI Carbon 3D Scanner, check that all components are included:

| Number | Item                              |
|--------|-----------------------------------|
| 1      | Carbon Fiber Mount with Projector |
| 2      | 2 x USB 3.0 Cameras               |
| 3      | 2 x Lenses (12mm)                 |
| 4      | Tripod Leg                        |
| 5      | Tripod Head                       |
| 6      | 15mm Calibration Board            |
| 7      | HDMI cable, USB 3.0 cable         |
| 8      | FlexScan3D Dongle                 |
| 9      | Calibration Stand                 |
| 10     | Power cable                       |
| 11     | 4 x Screws                        |



## Tripod Setup

Simply open the tripod legs and place them firmly on the ground.



Attach the tripod head to the legs by firmly twisting the tripod head until it is hand tight. (Some scanners will arrive with the tripod head already attached.)



## Connect the Scanner to the Tripod

Carefully lift your scanner and locate the mount adapter. Gently place the scanner onto the tripod head. Snap the tripod head lock into place to secure the scanner.





## Attach Cameras to the Mounts

Depending on the model of the scanner, the camera brackets will come in varying sizes and configurations. For the most part, this will not affect the scanner's assembly. In most cases, the camera mounts will arrive pre-assembled. If that is the case, you can safely skip to the next step.

### Large Cameras

Attach the cameras onto the camera brackets using the screws. You will need hex keys and/or a screw driver.





Attach the camera brackets onto their scanner mounts. Ensure that the metal pin is in placed between the bracket and mount, allowing the camera to rotate. Tighten the screws until they are firm, but do not over tighten.

### Small Cameras



### Attach Camera Mounts to the Scanner

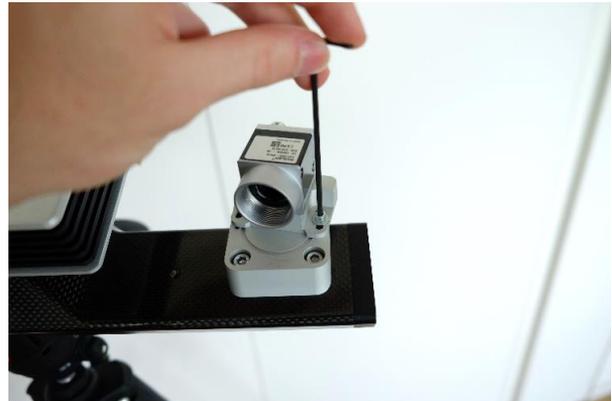
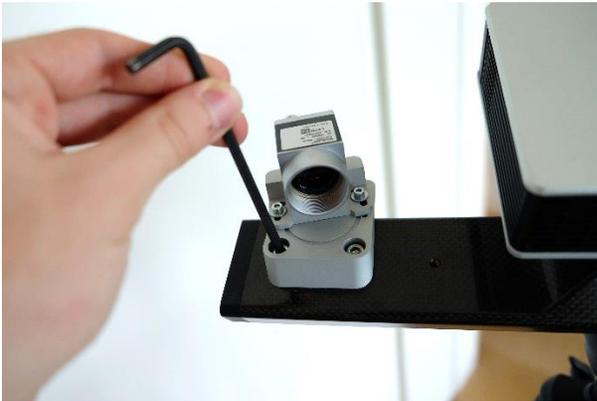
Attach the mounts onto both sides of the scanner. Tighten the screws until they are firm, but do not over tighten. Adjust the angle of the camera by loosening the bracket screws as needed.

### Large Cameras





## Small Cameras



## Attach the Lenses to the Cameras

Carefully remove the lenses from the packaging and take off the camera lens cap from each camera. The lenses will need to be screwed onto the cameras until they are hand tight.



## Connect the HDMI and Power Cables to the Projector

Locate the back of your projector and attach the HDMI and power cables.





## Connect the USB 3.0 Cables to the Cameras

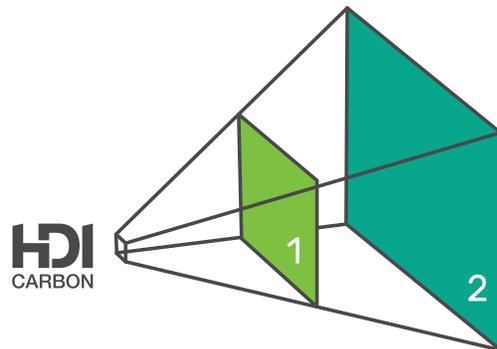
Attach the USB 3.0 cables to the back of the cameras, and lock the cables with the locking screws.



Connect USB 3.0 cables and HDMI cable to your computer. Plug the power cable into an electrical outlet.

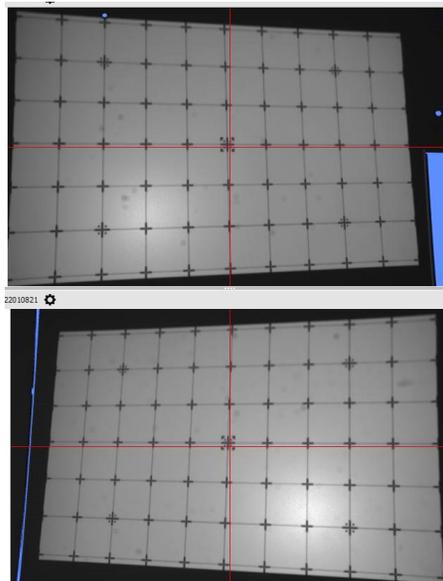
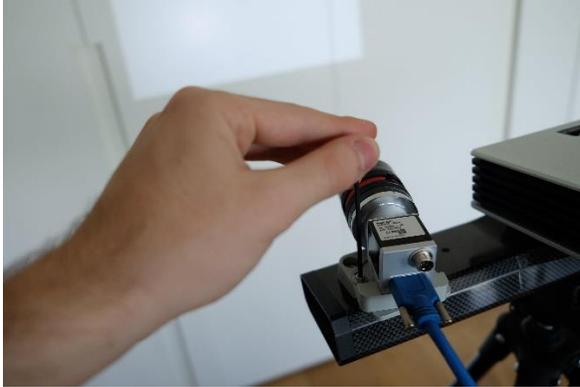
## Find the Correct Angles of the Camera

Turn on the projector and position the scanner at an appropriate distance from a flat surface. The recommended field of view is between 225mm (1) and 600mm (2) which corresponds to a stand-off distance of 280mm and 775mm respectively.





Open Flexscan3D and enable the focus pattern on the projector. Adjust the angles of the cameras until the projected focus pattern is centered in both cameras' field of view.



The physical assembly of the HDI Carbon 3D Scanner is now complete! For next steps please see our online manual on the topic of setting up the HDI Advance 3D Scanner

[Setting up the HDI Advance](#) or visit our online Manual

<http://www.polyga.com/FS3DHelp/Manual/>