First Scan - Quickstart Guide

1. Setting up the 3D Scanner

Mount the 3D Scanner on to the tripod. Plug in the Power Supply to the scanner. Turn the scanner on. Make sure that the Ethernet RJ45 cable is connected between the scanner and the PC.

Run Polyga’s Network Configuration Tool from the Start Menu and select the Scanner Default preset to change your port settings. Click Apply. Click Test to verify the IP configuration was successful.

Login on our website at https://www.polyga.com/my-account/ to download and install FlexScan3D.

Open FlexScan3D to add the scanner. Go to the Scanners Panel tab which is on the top left of the screen, then click on New to add the scanner. In the Scanner Type drop-down menu, select the type of scanner which you have purchased. The scanner should be showing up if all the connections are correct. Select the scanner and hit OK.
2. Taking your first 3D Scan

Determine the clearance distance between your scanner and your scan object using the table below. Place the object to be scanned at approximately the same clearance distance away from the 3D scanner. This way, the cameras will be focused to get the most amount of data out of a scan.

<table>
<thead>
<tr>
<th>Scanner Type</th>
<th>Clearing Distance (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDI Compact L6</td>
<td>680</td>
</tr>
<tr>
<td>HDI Compact S1</td>
<td>220</td>
</tr>
<tr>
<td>HDI Compact C210</td>
<td>164</td>
</tr>
<tr>
<td>HDI Compact C506</td>
<td>87</td>
</tr>
<tr>
<td>HDI Compact C504</td>
<td>51.5</td>
</tr>
</tbody>
</table>

Adjust the scanner and the tripod in such a way that the scanner is at a 45-degree angle looking down on the object.
Go to the **Project** tab in FlexScan3D and you should be able to see the object in the live feed camera window on the bottom right of the screen. In order to get the correct camera focus, adjust the distance between the scanner and the object so that the red crosshairs in both the cameras intersect at the same point on the object as shown in the screenshot. You can set to projector pattern to **FOCUS** and align the red crosshairs over the main center focus pattern crosshair.

Also, adjust the exposure such that there are no red or blue spots on the object to be scanned. The **Exposure** slider can be found on the top right corner of the screen.

After completing all the above steps, the scanner should be ready to take its first scan. Hit the **SCAN** button on the left-hand side of the screen. Now, the scan should be able to show data of the object as shown in the screenshot below.
In order to take multiple scans of the object, change the orientation of the object with respect to the scanner. Take a new scan after changing the orientation of the object. You should be getting a new scan data overlapping the previous scan similar to the below screenshot.
Now to align, click on the new scan data and change the orientation while holding Alt + Left Mouse Button. It is also possible to pan the new scan data while holding Alt + Mouse Scroll Button. Align the old and the new scan data by selecting the desired alignment type. Select more than one scan to be aligned by holding Ctrl and click the scan data list as shown in the screenshot. Now, hit the Align button on the top of the screen.

Once, you are able to successfully align the multiple scans, the object should look more complete similar to the below screenshot.
There is a chance that the scan data will not successfully get aligned due to lack of data or the orientation of the scan data to be aligned are wrong. If this is the case, it should look like the below screenshot.

Take multiple scans of the object by changing the orientation. Once all the scans are complete, select all the scans and hit the **Combine** button on the top of the screen. Select the **Finalize** button to generate a mesh. You have now completed your 3D scan project.