HOW TO USE THE 3D SCANNER

Preparing your object for scanning…

1. Apply a covering of talc powder or paint to dark, shiny, or clear objects using the pens found next to the scanner.
2. Double-click the Scan Studio shortcut on the desktop.
3. Set object in the middle of the platform (remove the gimbal if an object is too large for the floating platform).
4. After placing the object on the platform, press the [Scan] button (the green arrow).
5. The object will be shown as a black and white image. You can drag a box in this image that will limit the scanned area.
6. To make sure your scan is aligned in the box properly, you can rotate the image by clicking on the left and right arrows in the top of the menu. Do not try to align the image any other way.

Set scanning quality settings…

1. Select one of the three types of scans: 360, Bracket, or Single Frame.*
2. Select a zoom option from the "Range" area. Macro is the most precise if your object is placed close to the scanner.
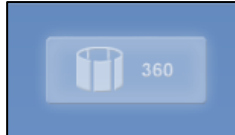
Start the scan…

1. Once the settings are set, give the project a name by filling in the line in the middle of the yellow box.
2. Press the green arrow to start the scan.
3. Rescan the object from multiple angles for best results.
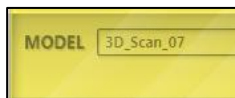
Aligning multiple scans together…

1. Click the [Align] button in the toolbar.
2. A split screen will be shown with two different scans. You can choose which scans are shown by selecting the thumbnails at the bottom.
3. Drag matching colored pins found in the top-right corners of each screen to mark similar areas between each screen.
4. When all six pins are set, click the [Attach Scans] button found in the yellow box.
5. Do this until all scans in the thumbnails below are aligned together into one image.

Cleaning up the scanned image (trim/fuse/polish)…

1. Select the [Trim] button from the toolbar to begin cleaning the model.
2. To trim a piece of the model, choose a brush shape in the Selector toolbar, select a chosen area until it becomes highlighted, then click the [Trim] button.
3. To deselect a highlighted area, click the minus sign or select the [Undo] button to undo the last trim.
4. Next, click [Back], then select the [Fuse] button.
5. Make sure all images you wish to fuse are already aligned.
6. If there is overlap from multiple scans, use the Volume Merge tool found in the Fuse menu.
7. Next, click [Back], then use the Polish tool to fill in holes, smooth rough surfaces, or to simplify areas that don't need to be complex.
   a. Make sure all polished models are fused before polishing them.
8. Once you have finished polishing your model, select Clean Defects option from the polish menu. This will remove any detected defects in the model's mesh.

Saving the finished scan…

1. Now that the model has been cleaned up, it is time to orientate it.
2. To do this, click on the [CAD] > [Orient] button on the toolbar, then proceed to choose the orientation for the object that you want.
3. Once the orientation is complete, save the model in the desired format via the [Output] button.

For more information, look in the NextEngine user's guide found in the "3D printing" folder on the 3D drive (drive W:)