

## 2 Basics to 3D Printing: Scanning

Within this module, you will be introduced to a new form of analog-to-digital conversion. 3D Scanning, using a dedicated 3D scanner allows you to translate a physical object into an editable 3D model. Using a 3D scanner also allows us to translate texture data with our model, allowing for hand-drawn or other textures to

be translated without the use of Photoshop or modeling software. In this assignment, we will be using the scanner to translate either a laser cut or clay model into a digital format.

Final Deliverables:  
One .STL or .OBJ file

### Instructions

#### 1. Installing EX-Scan

Download Exscan. Click next until the icon appears on your desktop. Then plug Scanner USB into your computer. Review an SOP developed by Jim Flowers on our website: 3D Printing > A2 > attachments.

#### 2. Setup

Open the Scanning software and select EinScan-SE, if prompted to activate the online license, do so. Follow the steps to calibrate the machine using the dotted grid and white paper, follow the steps on the screen. If the progress bar gets stuck at 80% for more than a few minutes, remove the dotted grid from the scanner view. It should proceed after that.

#### 3. Scanning

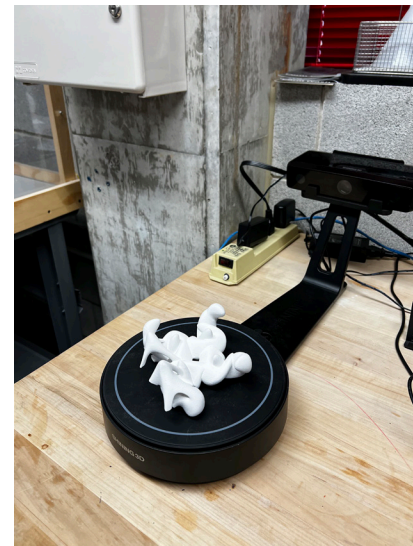
Select a new project, and place your clay or laser-cut model roughly in the center of the turntable. Adjust brightness to where there is little to no red in the background, then select "begin scan."

#### 4. Full Scan

Once one scan is complete you may notice it has not scanned your entire object (usually top or bottom of it), flip the model onto its side or upside down. Then select begin scan.

5. Repeat until happy with results, then select global optimization, then apply the edit. Finally save your model as a watertight, high-quality .STL or .OBJ

#### 6. Proceed to M3A3



3D Scanner



3D Printed Replica Model