

Simply Stitch – Addon for Blender 4.1 and higher

By Vjaceslav Tissen & Wolfgang Tell



Introducing

Simply Stitch: Professional Stitching for Your Mesh

Simply Stitch is an advanced Blender 3D addon designed to streamline the process of creating meticulous stitches for your mesh. This addon offers a versatile toolkit, allowing you to effortlessly draw stitches on your object using various methods, including drawing, lines, curves, and more.

In Edit Mode, the addon provides a straightforward mechanism for incorporating the drawn stitches onto selected edges. This enables you to seamlessly integrate stitches into your design or add seams for enhanced bulge profiles, providing greater control during the detailing process. Simply Stitch is your go-to solution for achieving precision and efficiency in mesh detailing within the Blender environment.

Why

This addon is tailored to refine cloth objects before diving into texture painting and finer details. With a focus on adding geometry details for high-poly models, it simplifies the process of baking from high to low resolution.

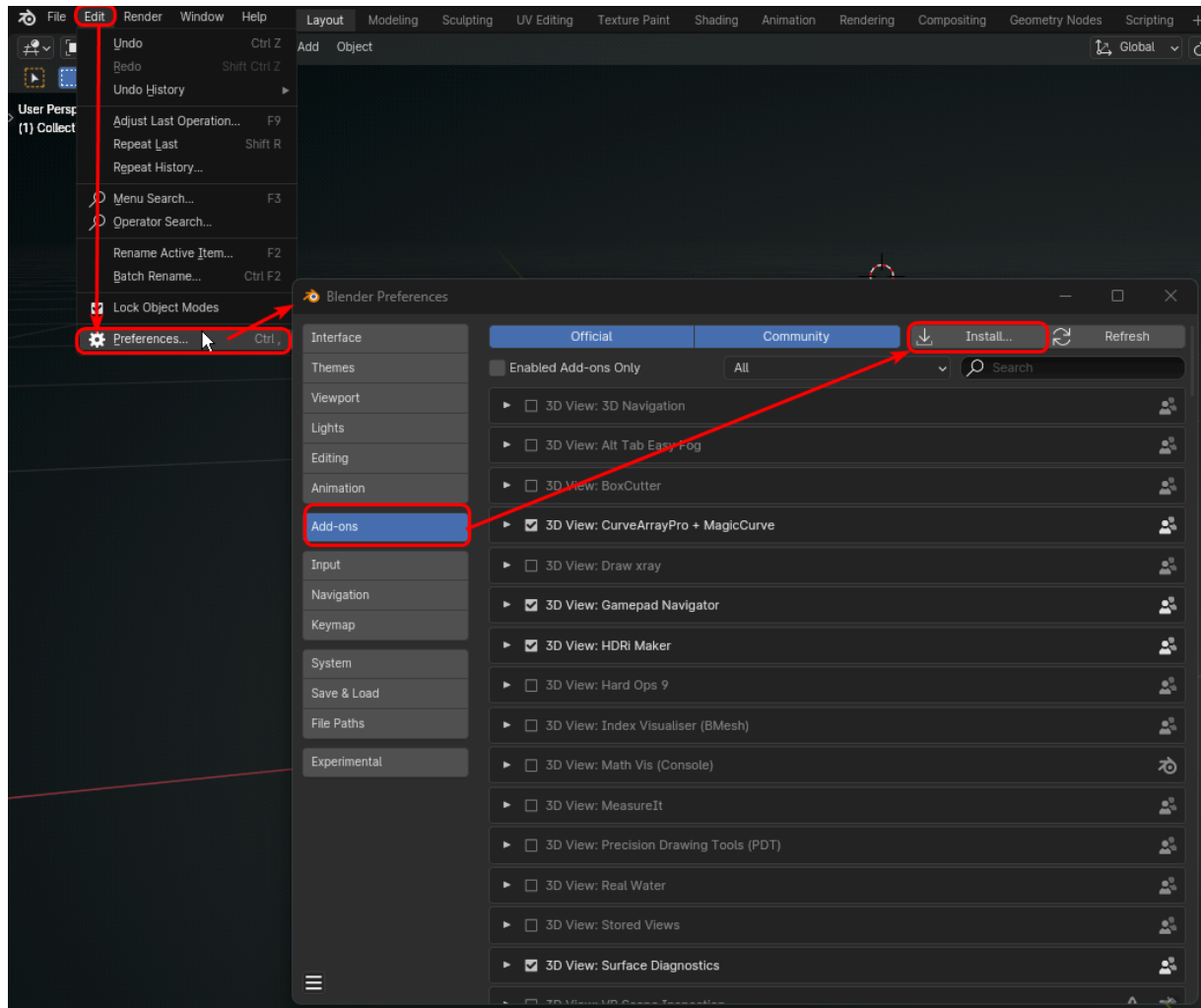
In collaboration with **Wolfgang Tell** & Franz Klassen, we aimed to enhance cloth object quality within Blender. Now, effortlessly drawing or dragging lines across the mesh yields instant, desired results. It's about streamlining complexity, ensuring a smoother creative process, and maximizing Blender's potential for every project.

Full Introduction video:

<https://youtu.be/2xAZT2czljc>

Documentation

Install Simply Stitch Addon



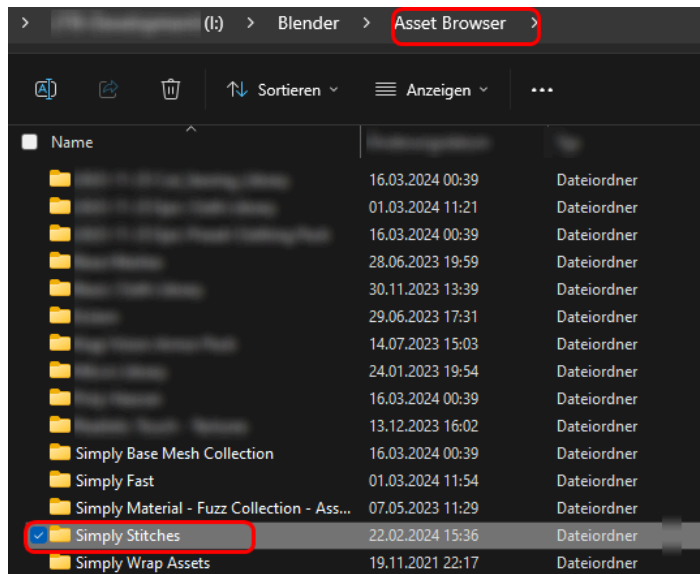
Go to Blender / Edit / Preferences / Add-ons

Hit **Install...** and select the downloaded **SimplyStitch-v1-for-4.1.zip**

*(Do not unzip the file before -> Just select during **Install...**)*

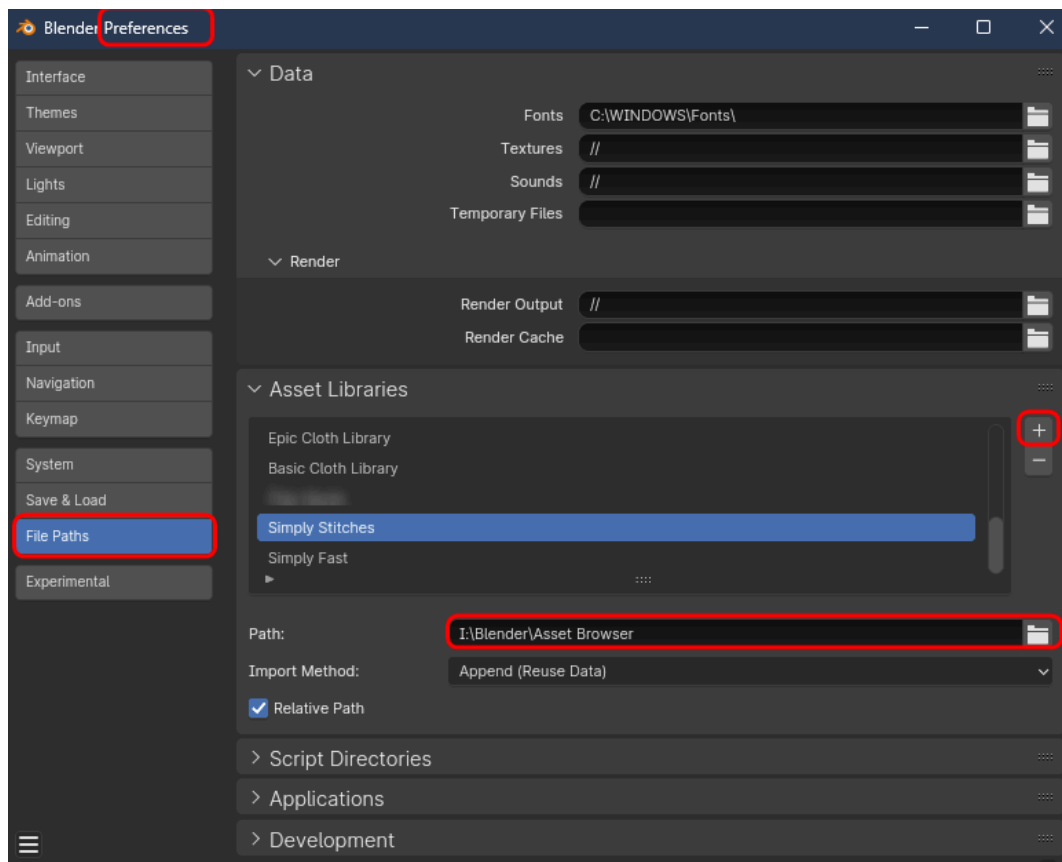
Install Simply Stitch Assets

Unzip the Downloaded file **SimplyStitch-Asset-Library.zip** to your directory of your choice.
Like the assets library directory:

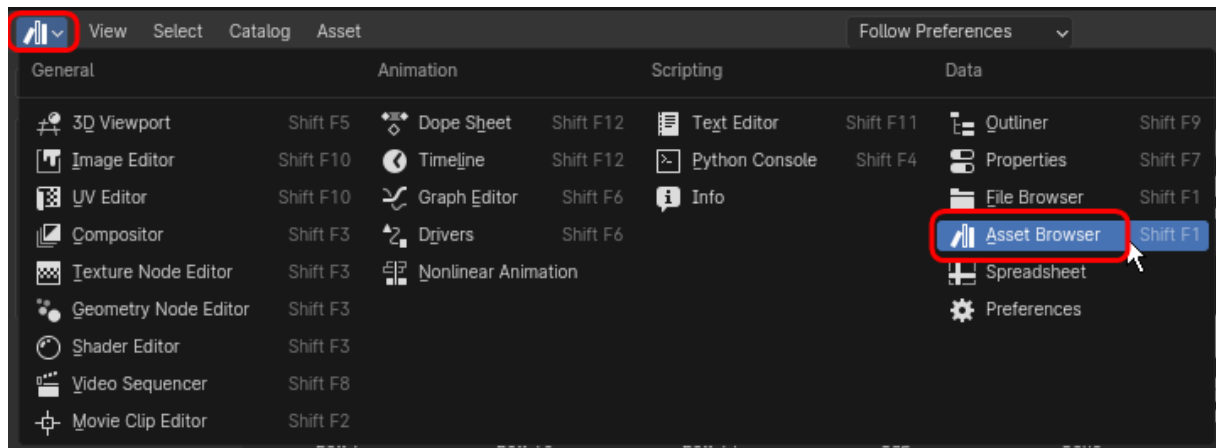


Copy the path for example like this: **I:\Blender\Asset Browser**

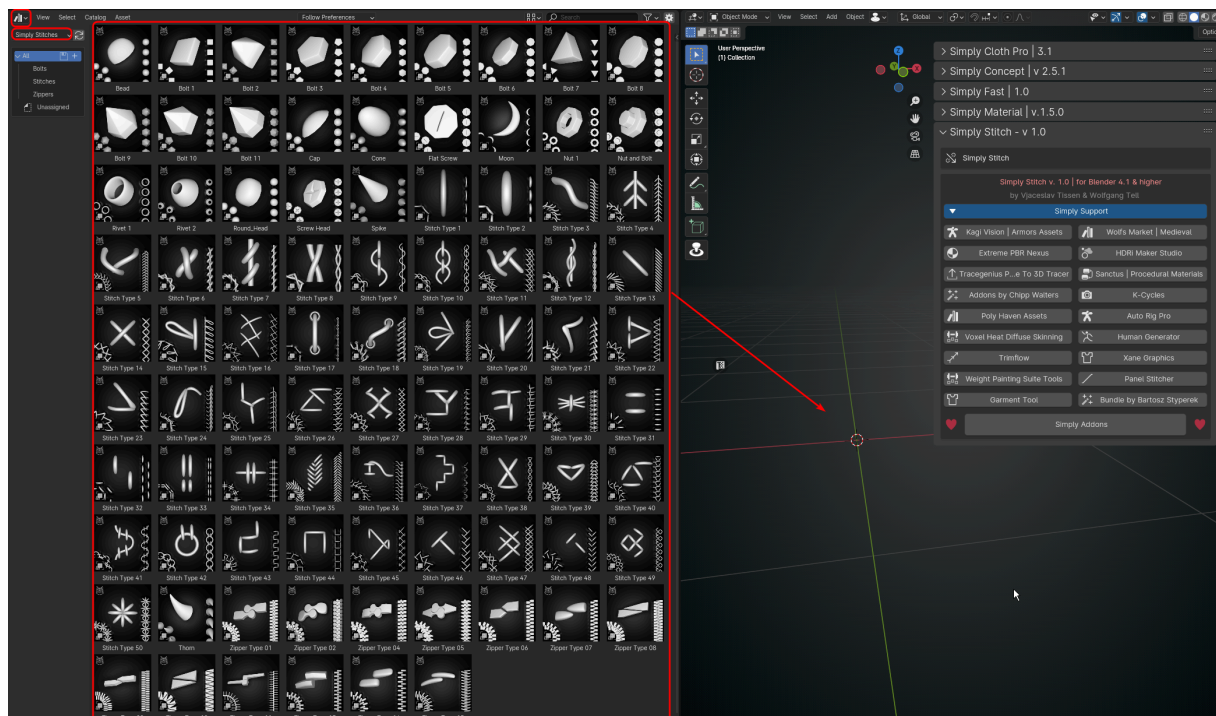
Go to Blender / Edit / Preferences / File Paths



Hit the Plus Icon and add the name of your Simply Stitch Library and hit to the folder icon to add the location of the unzipped files.



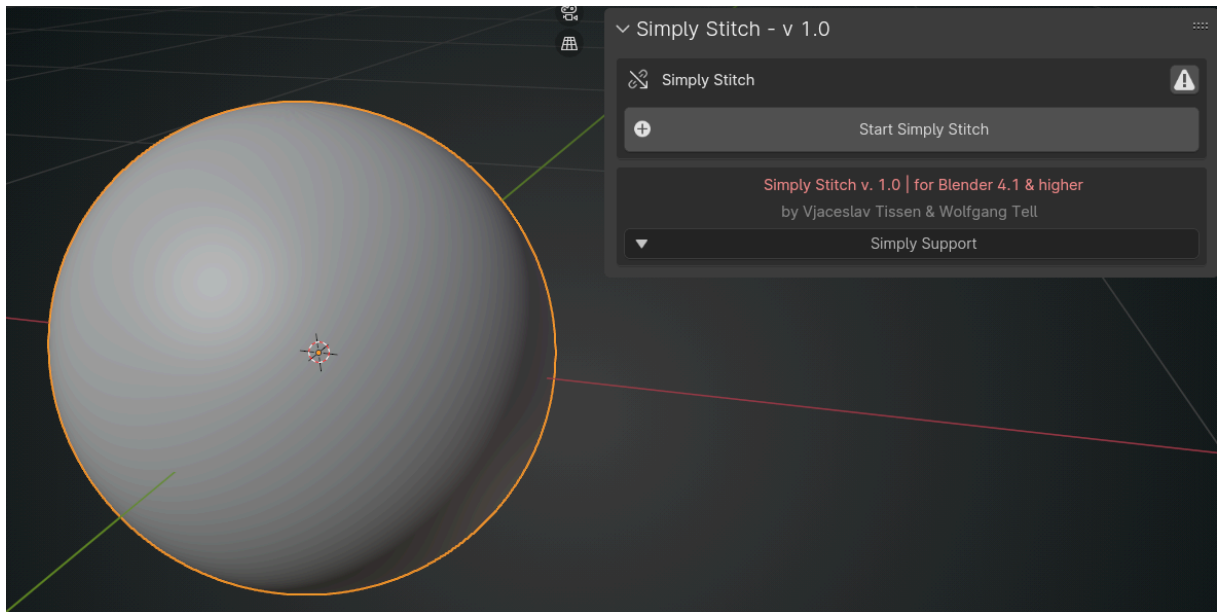
Open a second view window in Blender's viewport and then select the Asset Browser.



Now, select the category in the top left corner, and then easily drag the items into the scene to use them according to your needs.

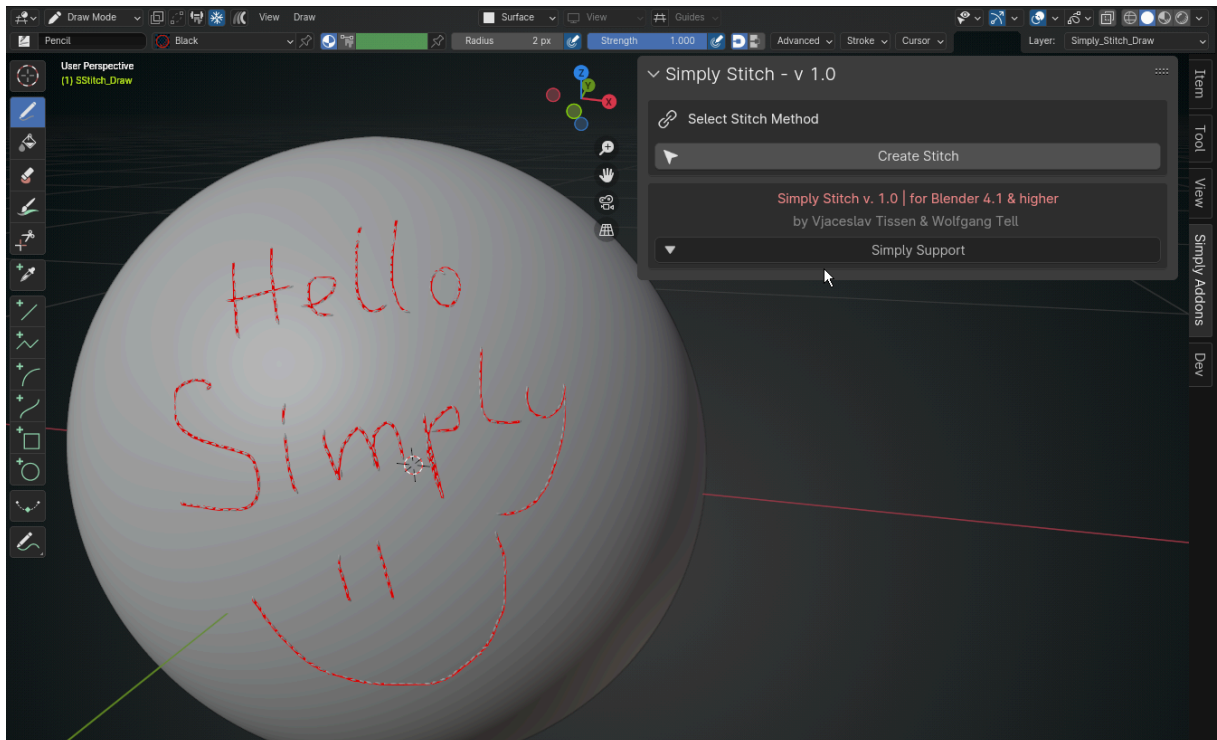
Start Simply Stitch

Select the object you want to add stitches to and click the button to begin the stitching process.



Draw Mode | Create Stitch

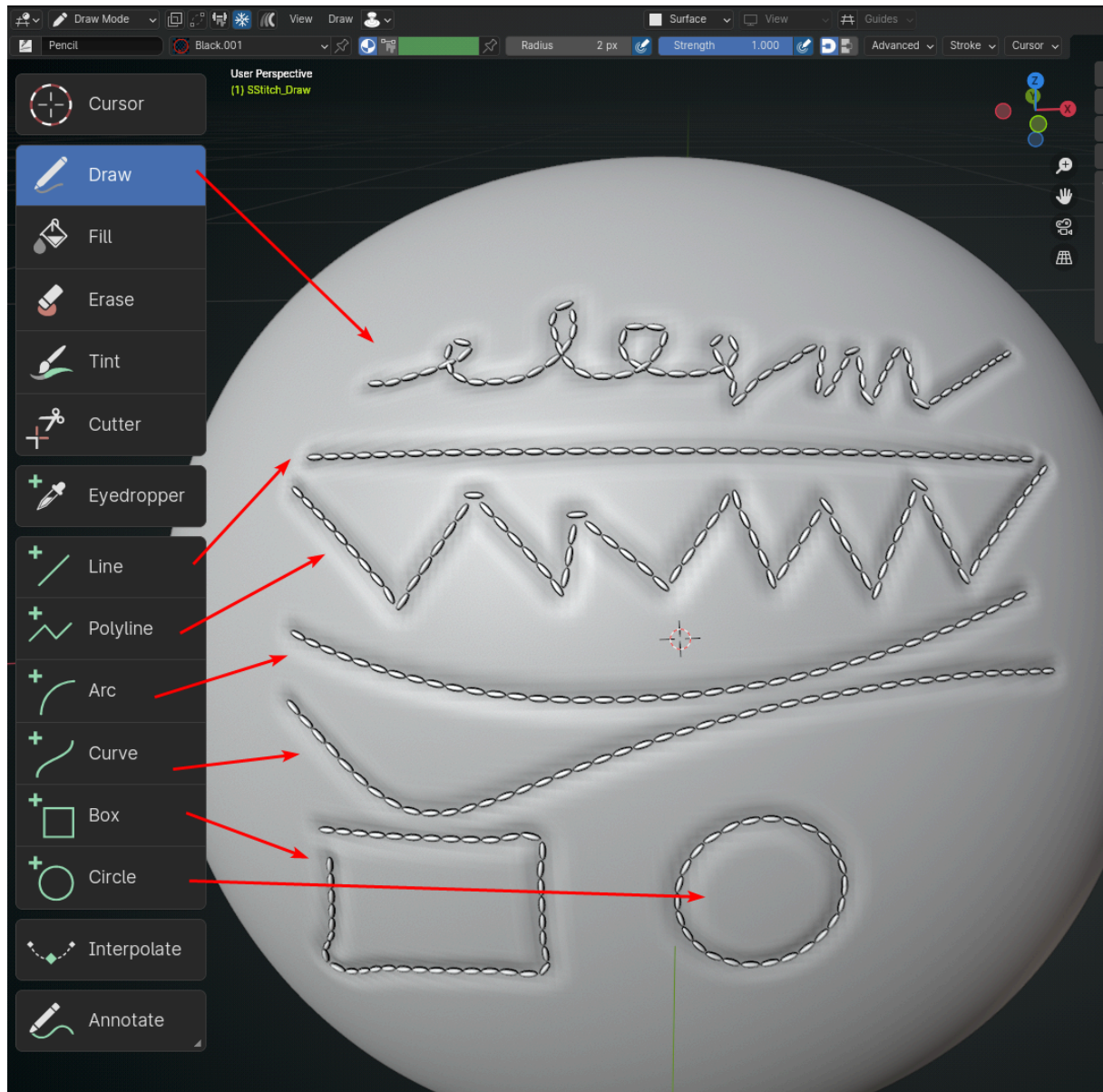
Use your mouse or graphics tablet to draw the stitching.



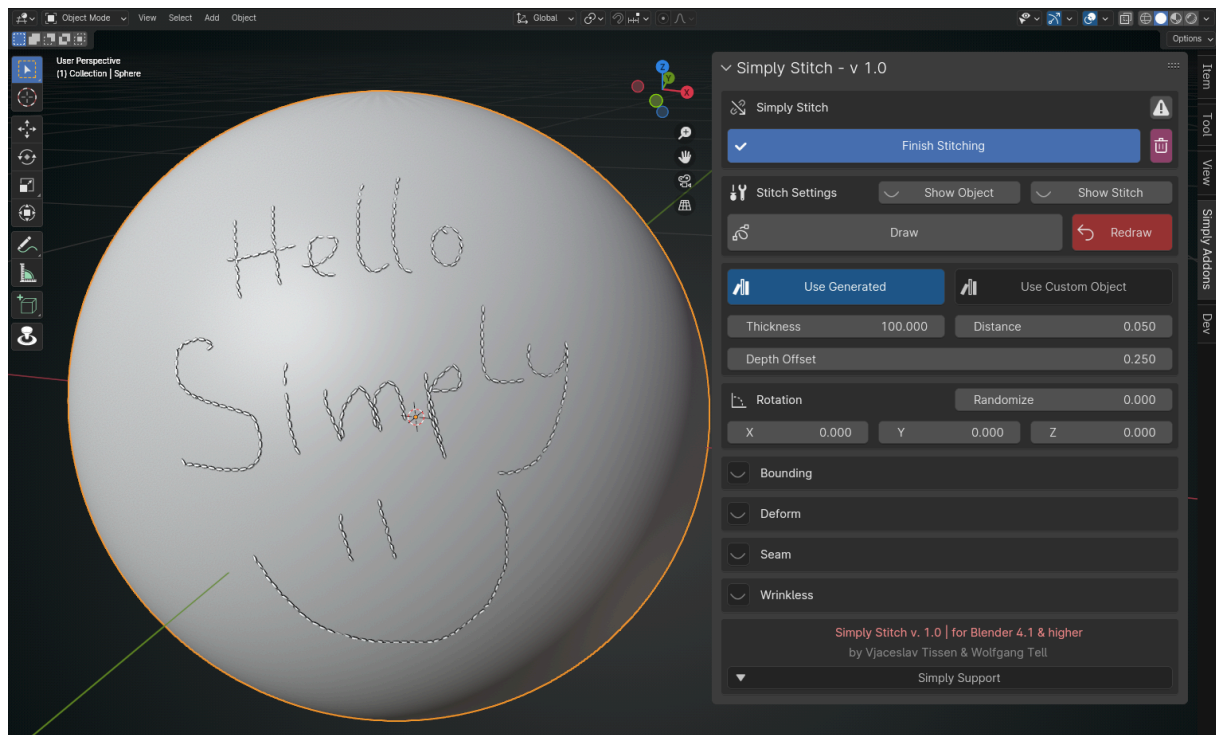
Alternatively, you can select other tools from the left panel to customize your stitching according to your preferences.



Different Draw Methods



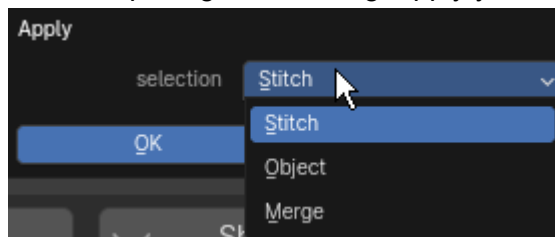
Create Stitch | Switch to Object Mode



Finish Stitching



After completing the stitching, apply your creation to specific options such as



Stitch: Apply the stitching independently from the main object to create a backup working object.

Object: Apply the stitching exclusively to the affected object, creating a backup working object.

Merge: Apply the stitching to both the affected object and within the same object without creating a backup.

Trash: Clicking this button will remove the stitch setup for the object and delete all objects created by the addon, except for those with established stitches.

Stitch Settings



Display your object or stitches



"**Draw**" allows you to continue adding stitches, while "**Redraw**" clears all existing stitches and restarts the process from scratch.

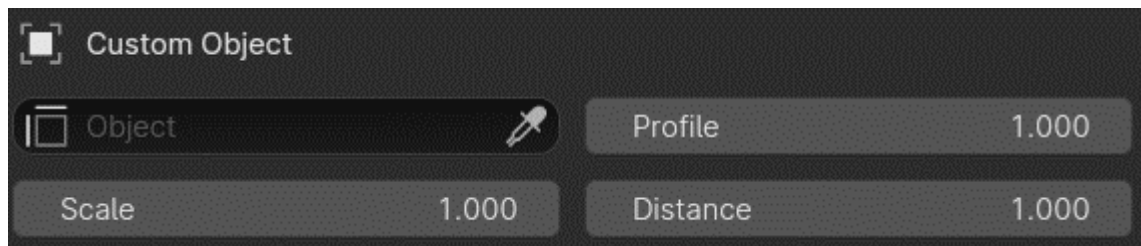


Use Generated

Generate a base stitch automatically.

Use Custom Object

Choose a custom object or utilize stitches from the asset library provided with your option.

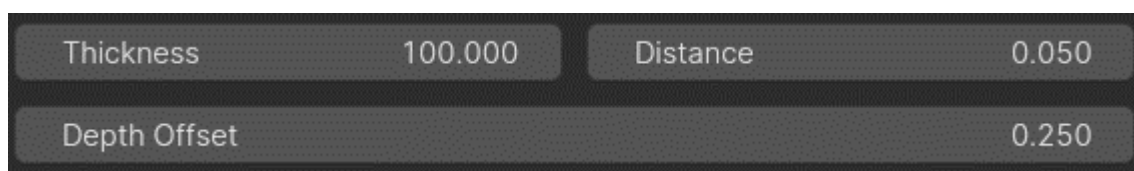


Select Custom Object

Profile: Configure the bulge profile of the custom object.

Scale: Adjust the size of your custom object.

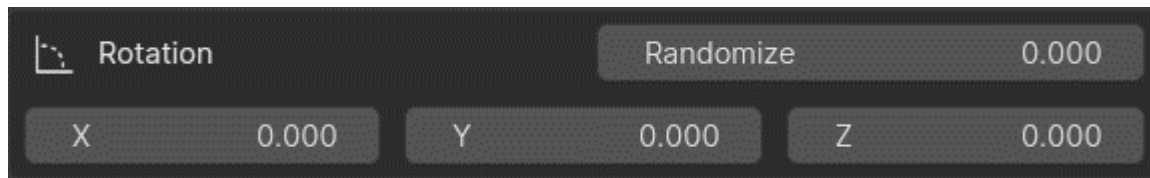
Distance: Modify the spacing between each object.



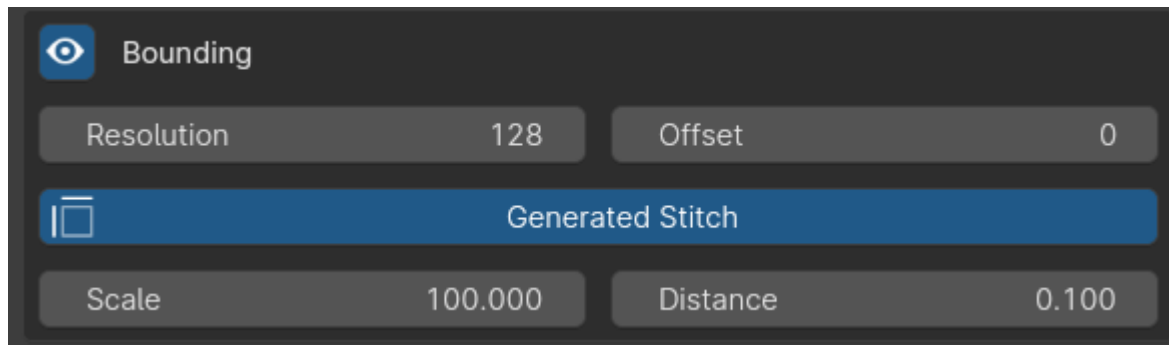
Thickness: Alter the thickness of the stitches.

Distance: Adjust the spacing between the stitches.

Depth Offset: Modify the depth distance between the object and the stitches (important if the deform option is active).



Rotate stitches along each axis or randomize their orientation as necessary.



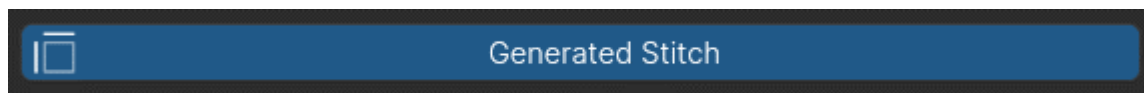
Eye: Enables or disables bounding.

Resolution: Adjusts the curve resolution created along the bounding edges of your object.

Offset: Shifts the bounding stitch from the bounds to the inside.

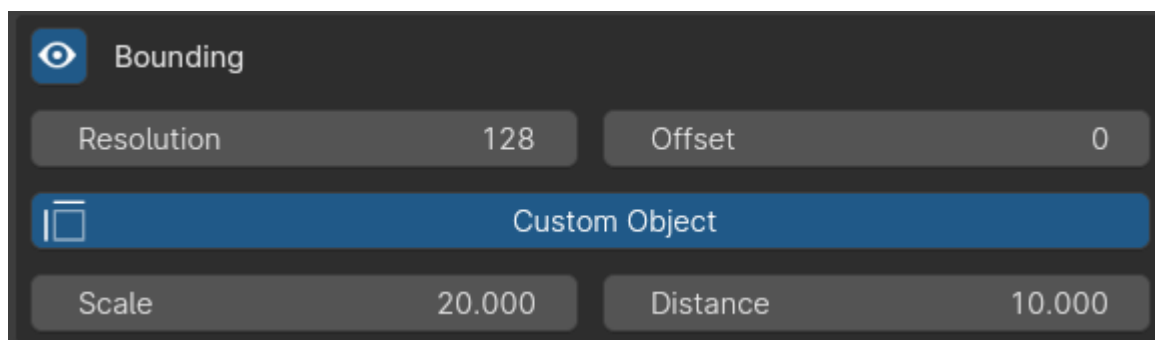
Scale: Resizes your bound stitches.

Distance: Alters the spacing between your bound stitches.

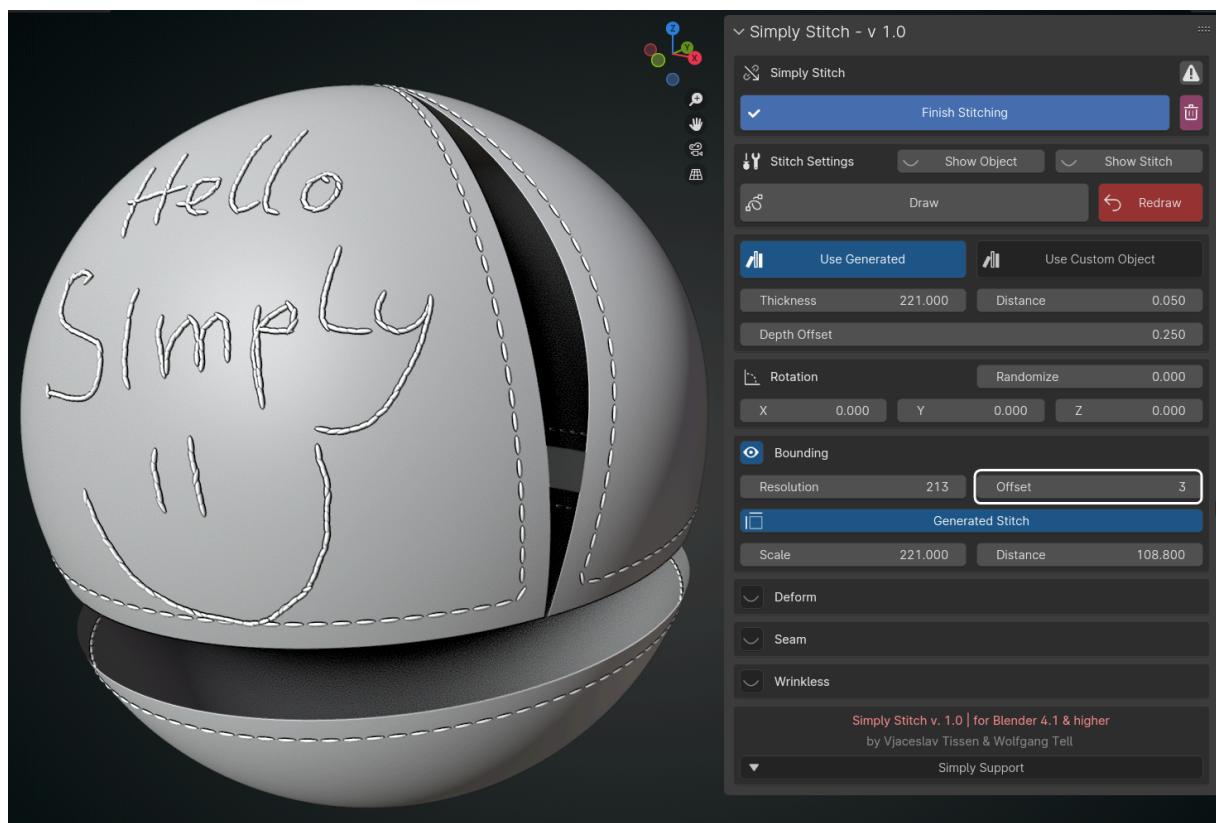
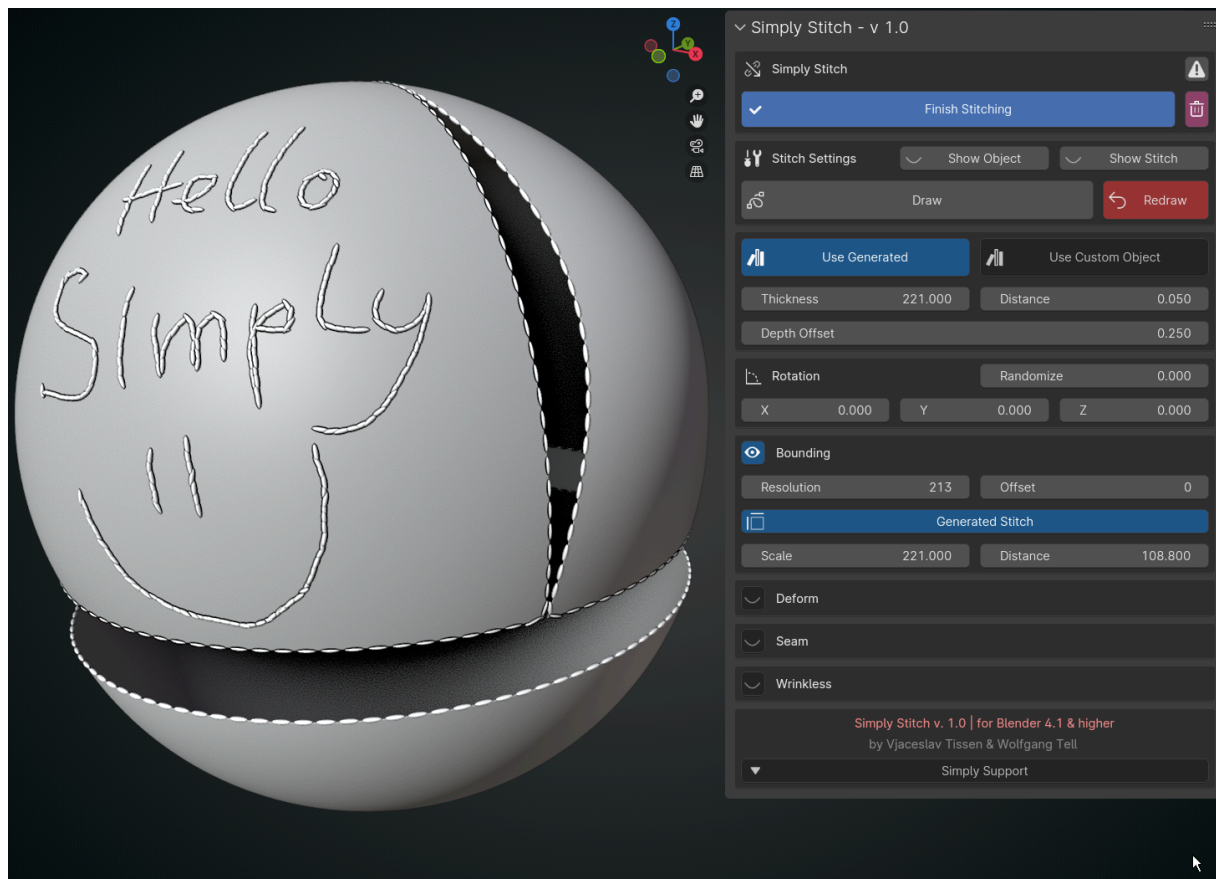


Use generated Stitch: Utilize the base stitch.

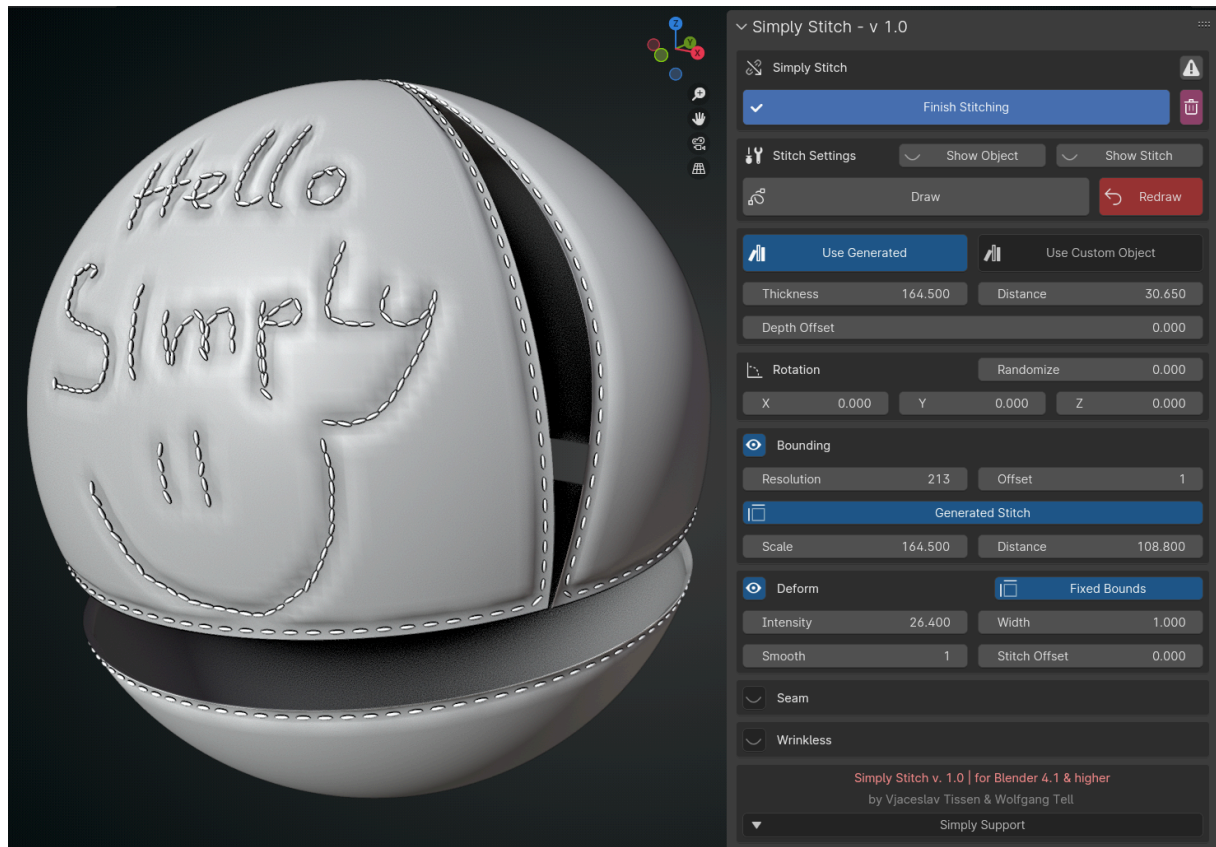
If turned off: A line will be created where you can adjust the thickness. Alternatively, you can add a custom object to the bounds using this button.



Bounding Examples:

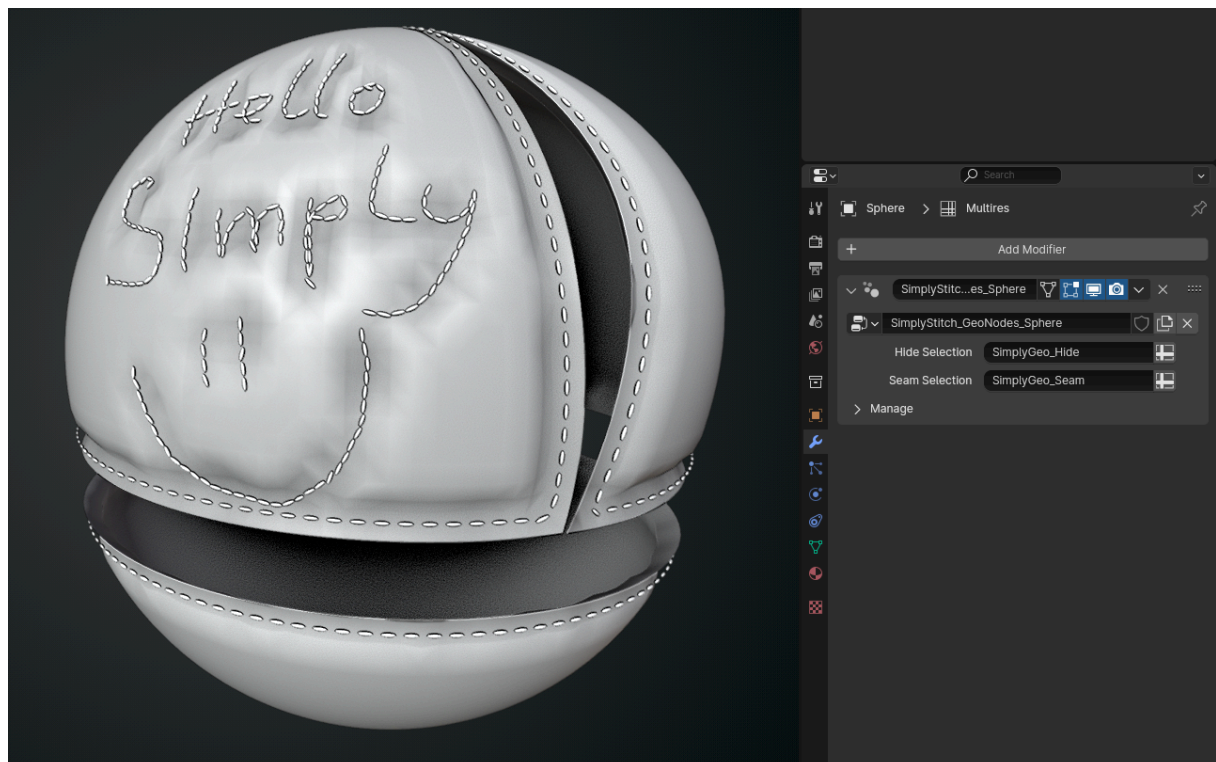


Deform

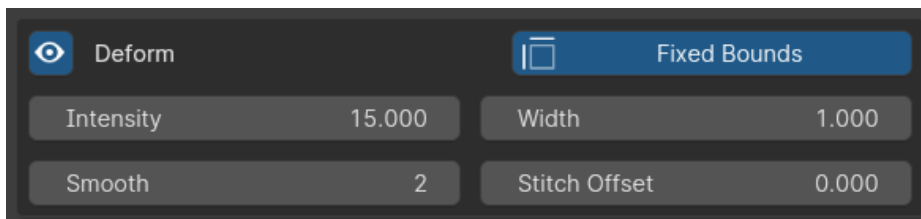
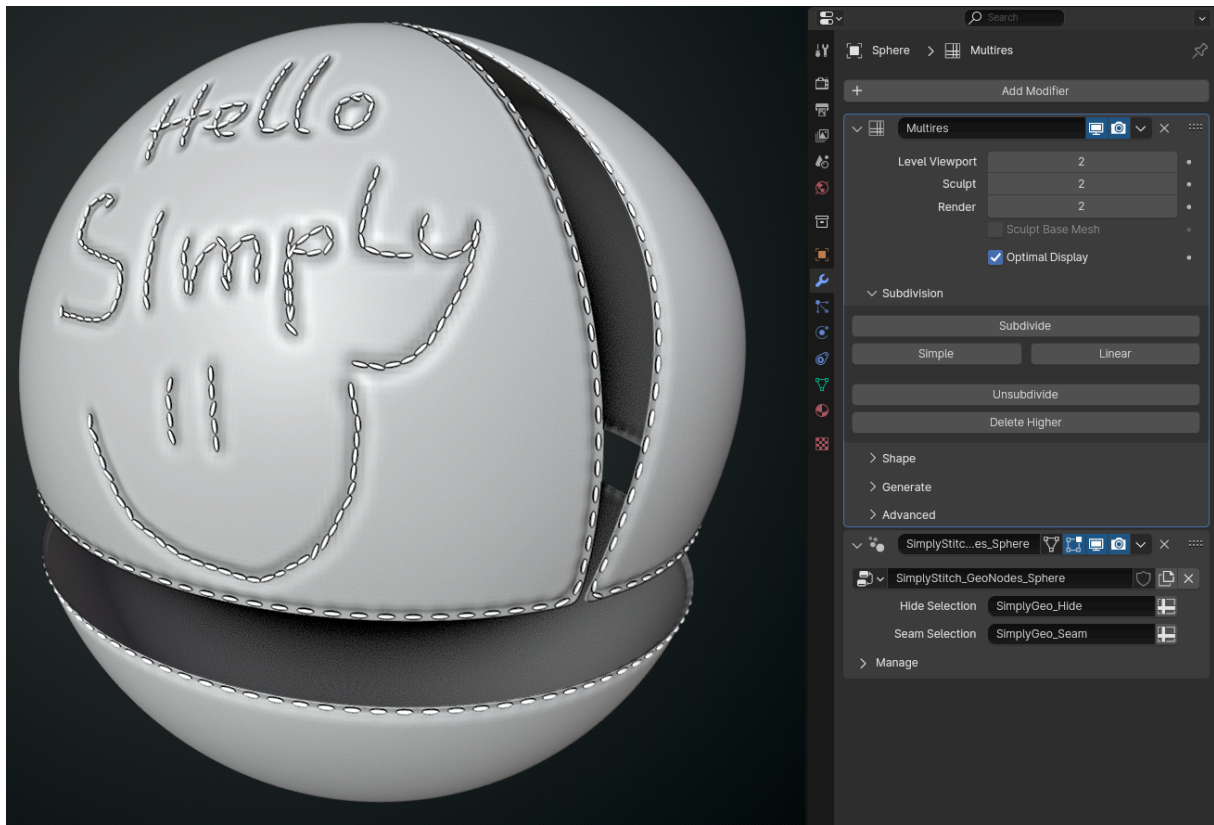


Deformation works more effectively on higher resolution objects. If necessary, I recommend using the Multires modifier. Here's an example:

Low Resolution



High Resolution



Fixed Bounds

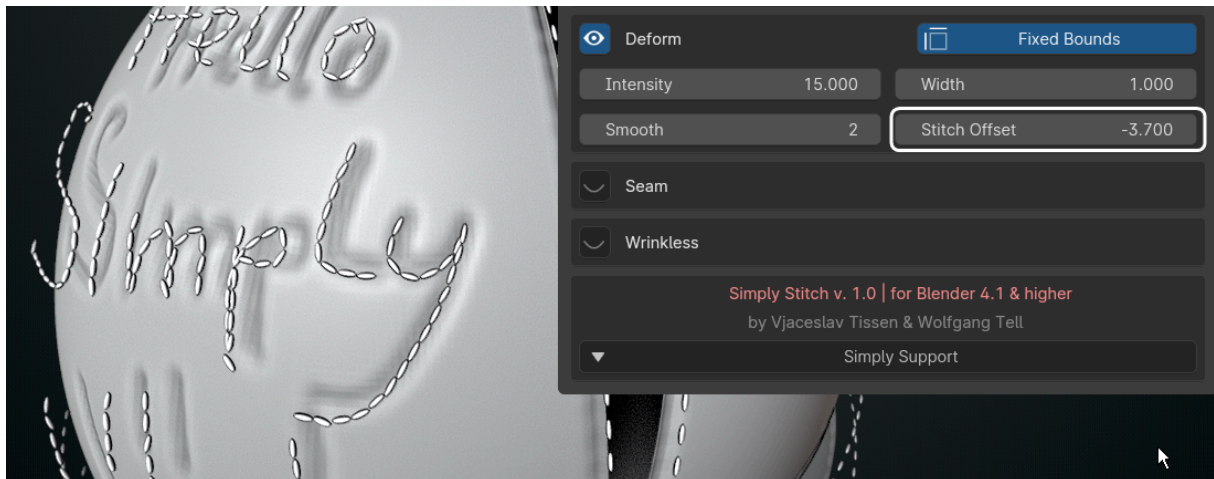
Correct the bounding of your mesh if there is deformation through the bounding stitches. If turned off, the bounds will be influenced by the bounding stitches.

Intensity: Adjust the deformation intensity with positive or negative offset from the object's normal.

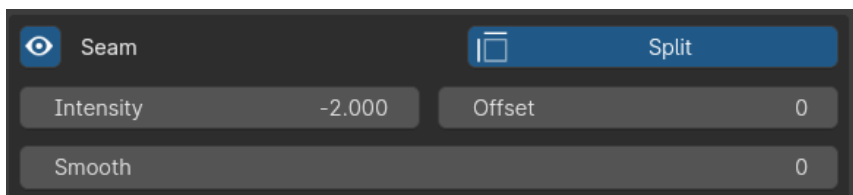
Width: Change the width size of the deformation.

Smooth: Smooth out for cleaner deformation, but it may result in a blurrier appearance.

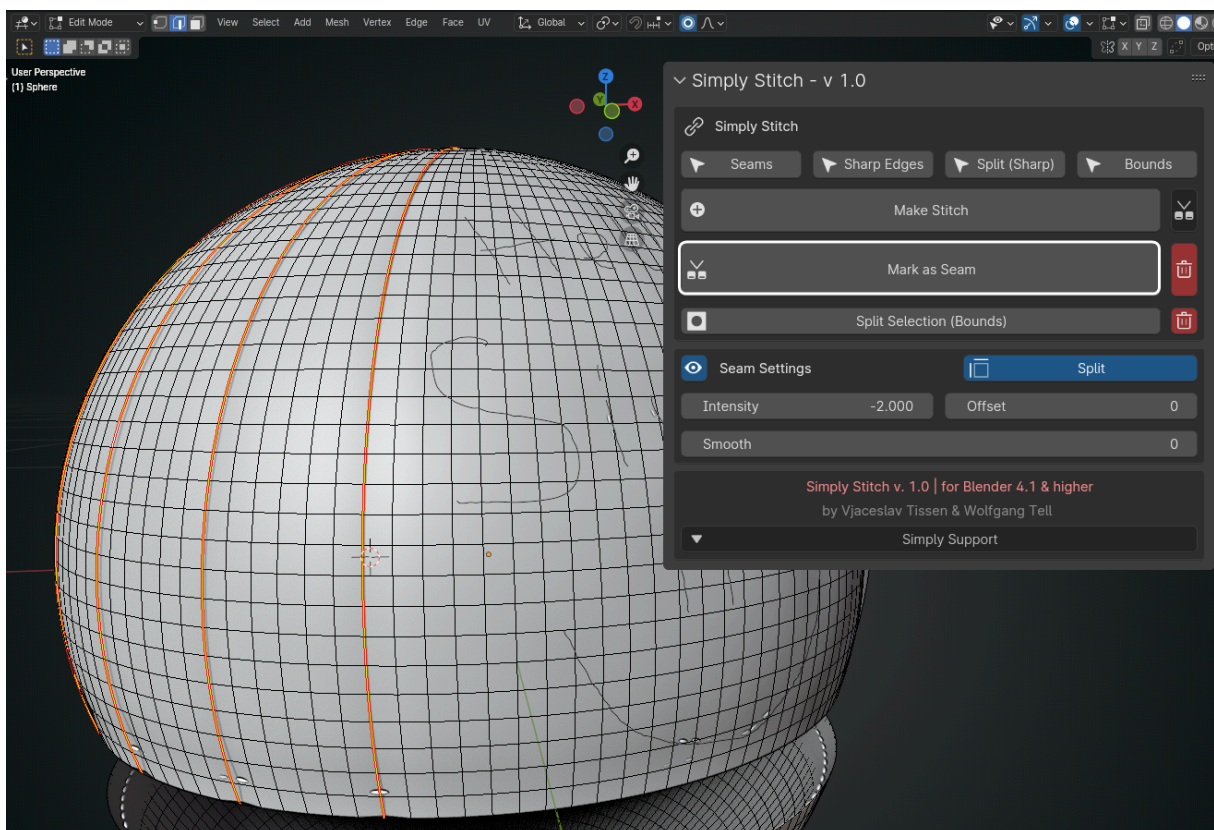
Stitch Offset: This function affects, similar to before, the distance between the stitches and the object, known as Stitch Depth Offset.



Seam

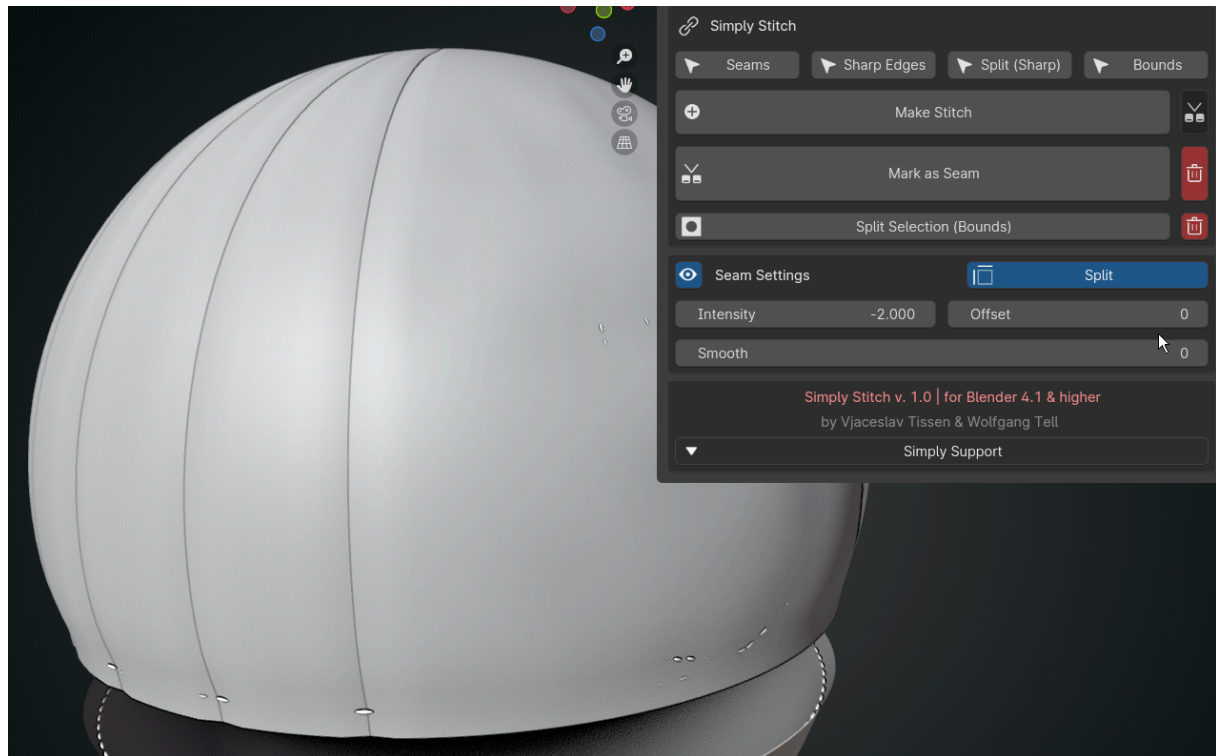


This only makes sense if you have marked edges in **Edit Mode** as "SEAM" or if they are selected.

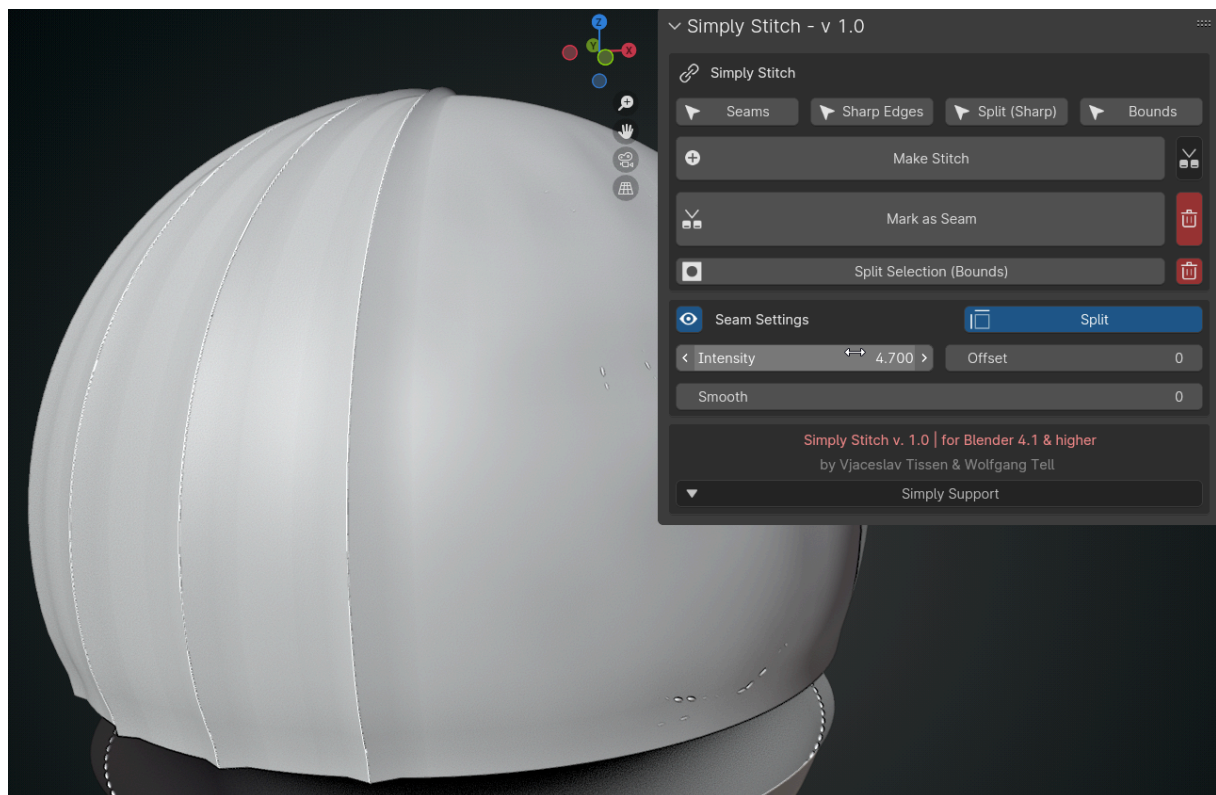


This function enables you to obtain seam lines without applying stitches.

A negative value pushes the selection inward.

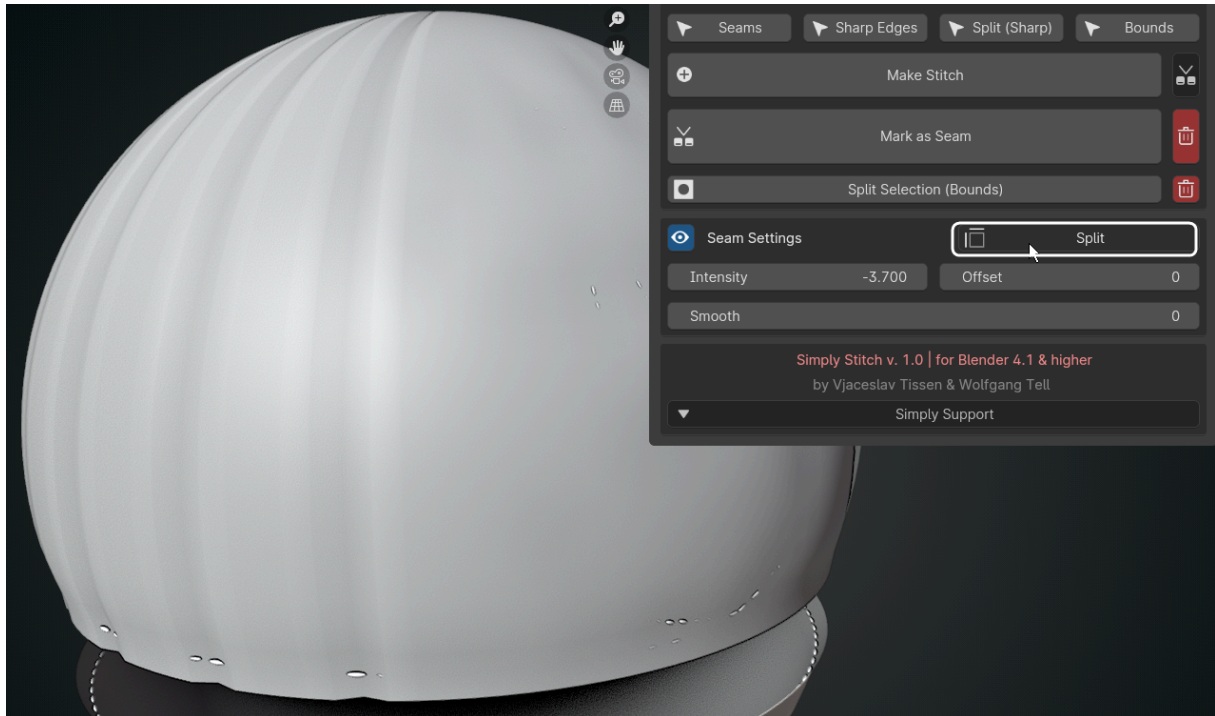


A positive intensity value pulls the selection outward.



Split

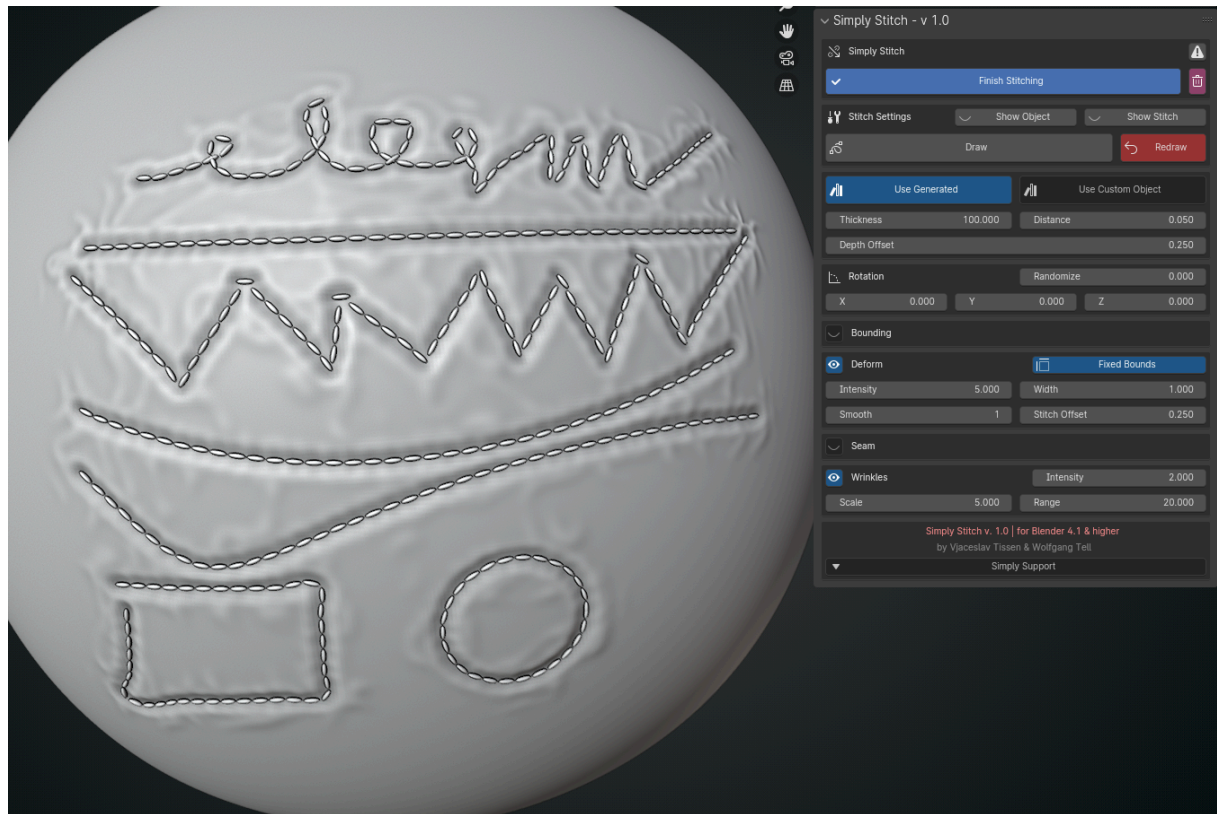
Enabling this option will split the seams, creating a stronger seam for the object. If it's turned off, it will only create an offset in the topology without splitting the seams.



Offset: Expands the width of the stitch, which may introduce topology artifacts. This option is highly specific and applicable in very random cases.

Smooth: Smooths or relaxes the selected seam line topology, but it functions optimally when split is turned off.

Wrinkles



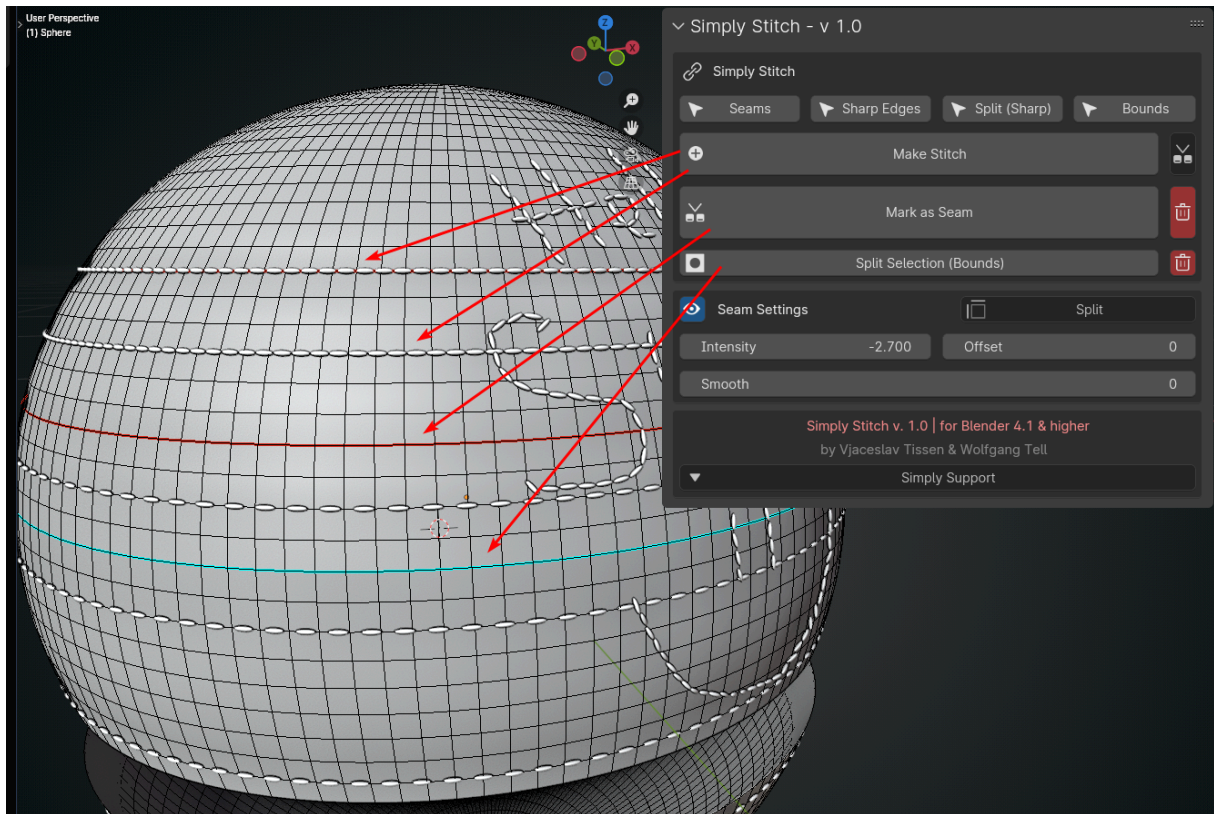
The wrinkles work best when you activate the deform feature to calculate them through stitching based on the deformation.

Intensity: Adjusts the strength of the wrinkles.

Scale: Scales the size of the wrinkles.

Range: Sets the width of the area affected by the deformation."

Edit Mode

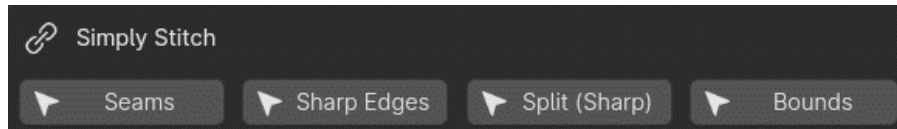


Make Stitch

Selected edges will be converted into stitching lines by pressing "Make Stitch." If the "Seam" option is activated, a seam will automatically be marked, affecting the deformation topology of the object if "Seam" has some intensity.

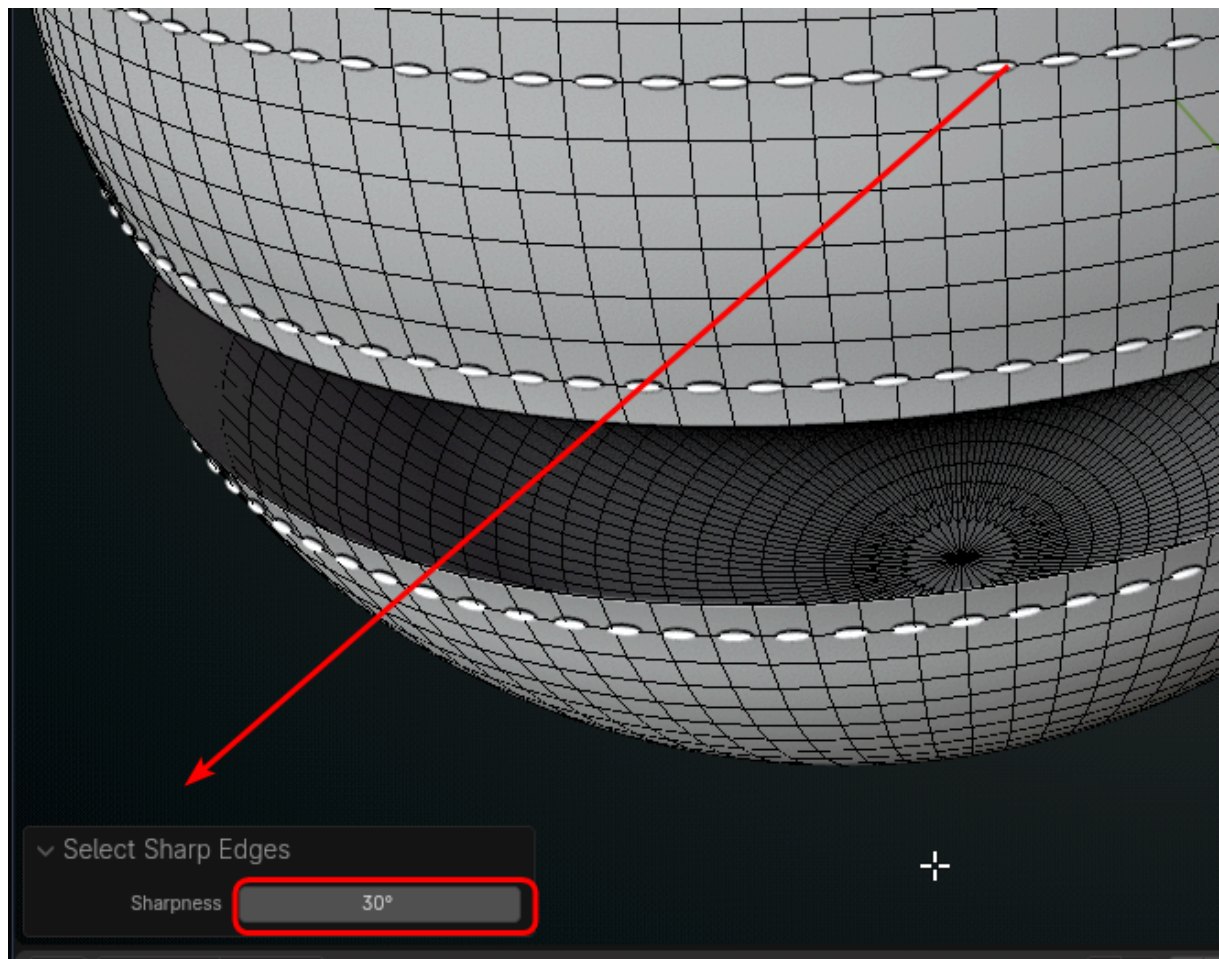
Split Selection (Bounds)

Selected edges will be split within the workflow but won't affect your mesh topology. This splitting is only for visualization in the viewport and will act as a bounds creation button to provide more control. From these split edges, bounds will be created if the "Bounds" option is activated, resulting in stitches being created along the bounds you added. You can see the blue line in Edit mode and the resulting object mode in the picture above.



Seams: Selects all seams in the object, if available.

Sharp Edges: Selects all sharp edges based on the angle you've set in the operator's adjustment.

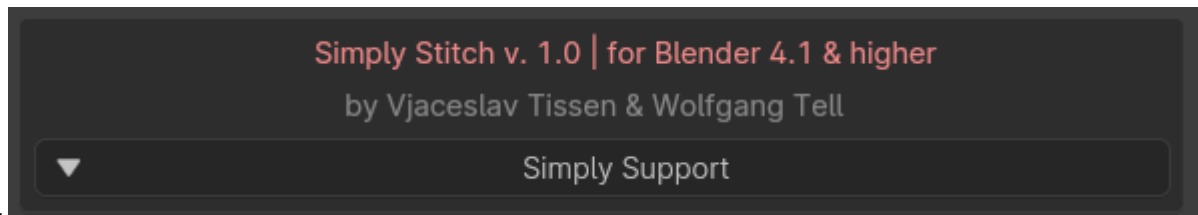


Split (Sharp): Selects all blue lines (split) edges.

Bounds: Selects all bounding edge lines.

Trash: Trash will remove the selected lines based on which option you choose. If you select Seam or Split, it will remove the corresponding markings from your object.





Simply Support

This bar is for users who want to support me or other developers. Simply click to see the addons I recommend.



Some image collections:

