

Converting Mesh Models to VAM Hair - Tutorial

lin-64843425

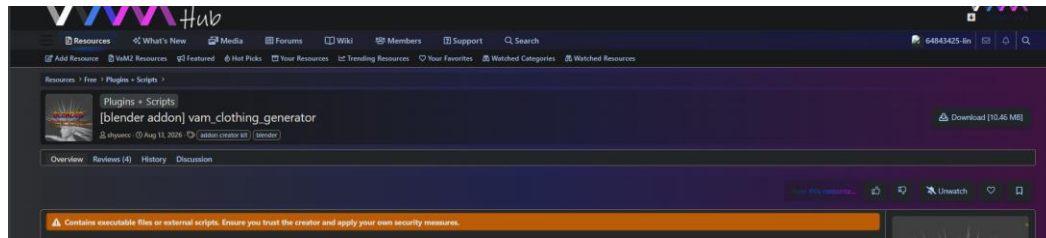
Today I'll explain how to convert a mesh model into VAM hair, because I want to take on the hair of Li Zhiyan from Endfield.



I'll use two types of hair as examples: straight hair and curly hair.

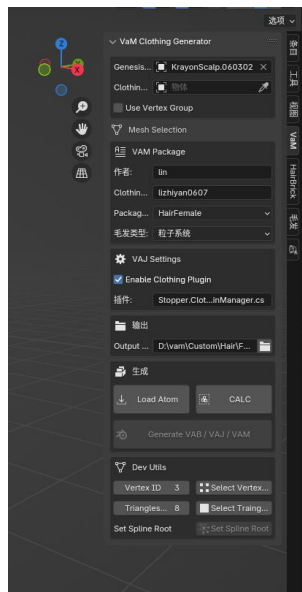
Preparation: First, download and install the plugin.

[\[blender addon\] vam_clothing_generator - Plugins + Scripts - | Virt-A-Mate Hub](#)

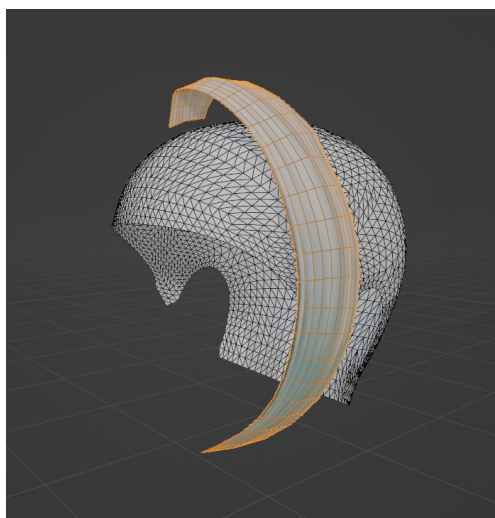


Many thanks to shyuecc for providing the plugin.

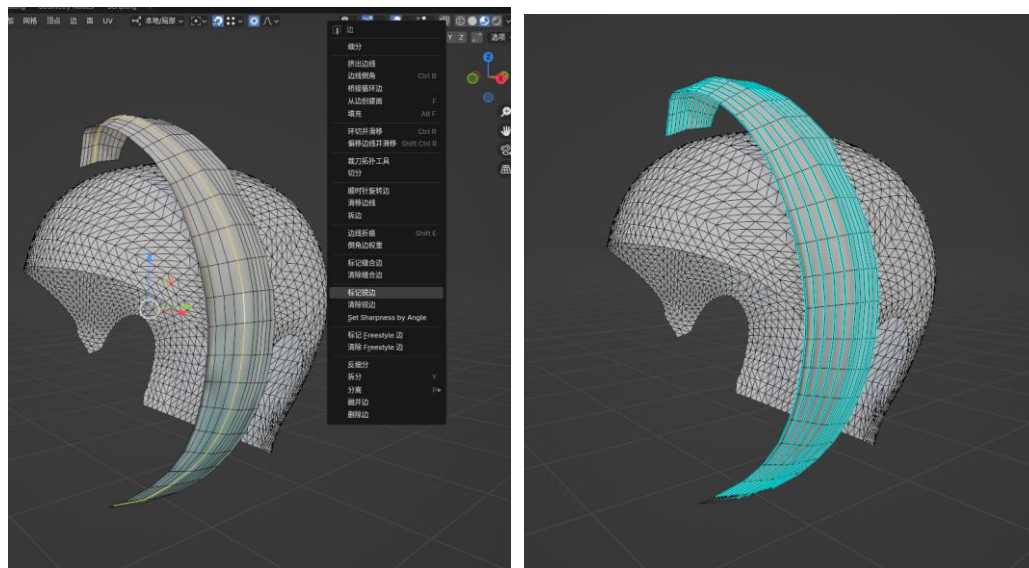
After installation, it appears in Blender as shown below.



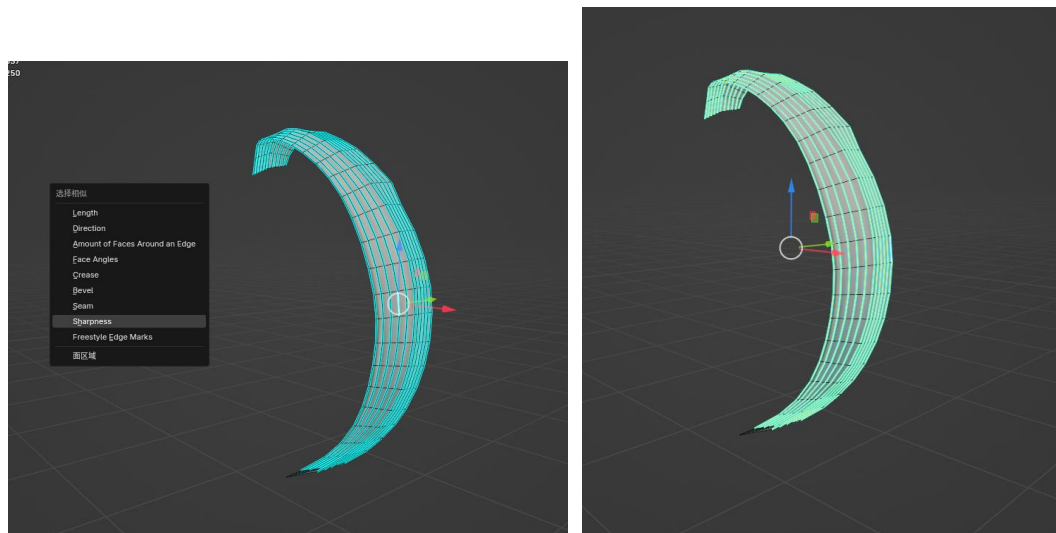
Example 1: As shown, I need to convert this straight-hair section from mesh to VAM hair. I've already processed the mesh into uniform quad faces with edge loops.



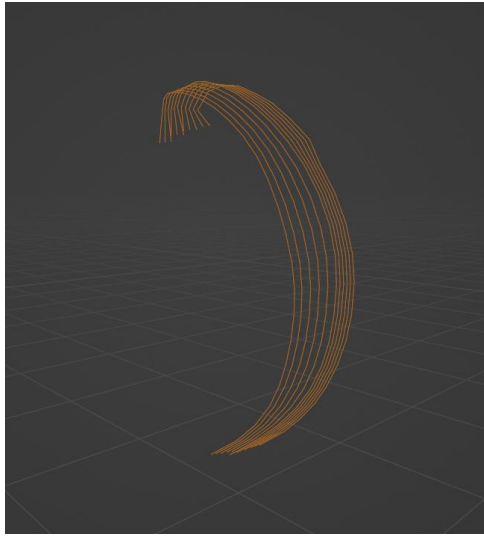
Select the edge loop, right-click to mark it as a sharp edge.



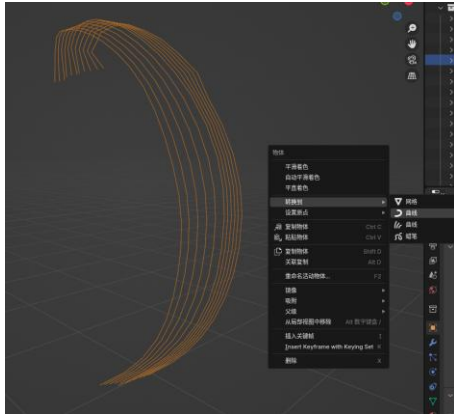
Press Shift G to select all sharp edges.



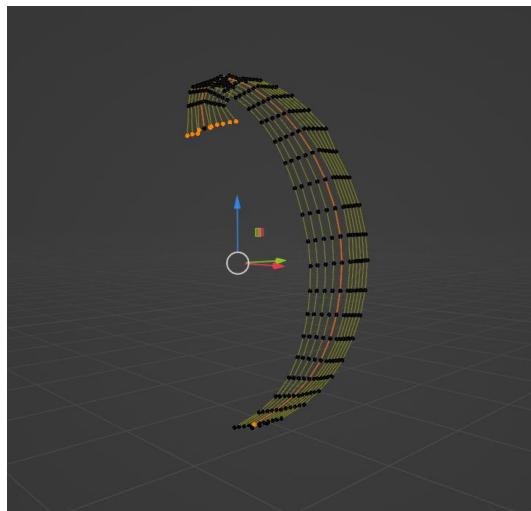
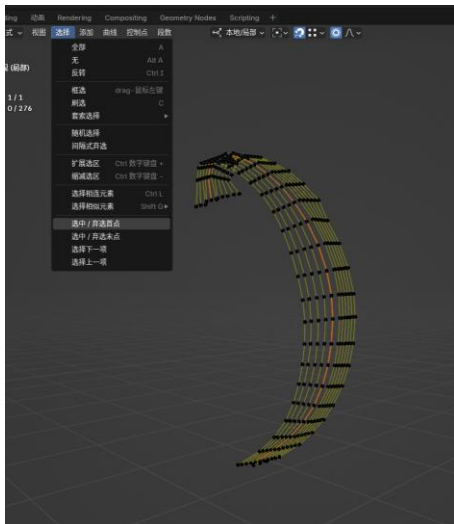
Then press Shift D and right-click to duplicate it in place, then press P to separate it into a new mesh.



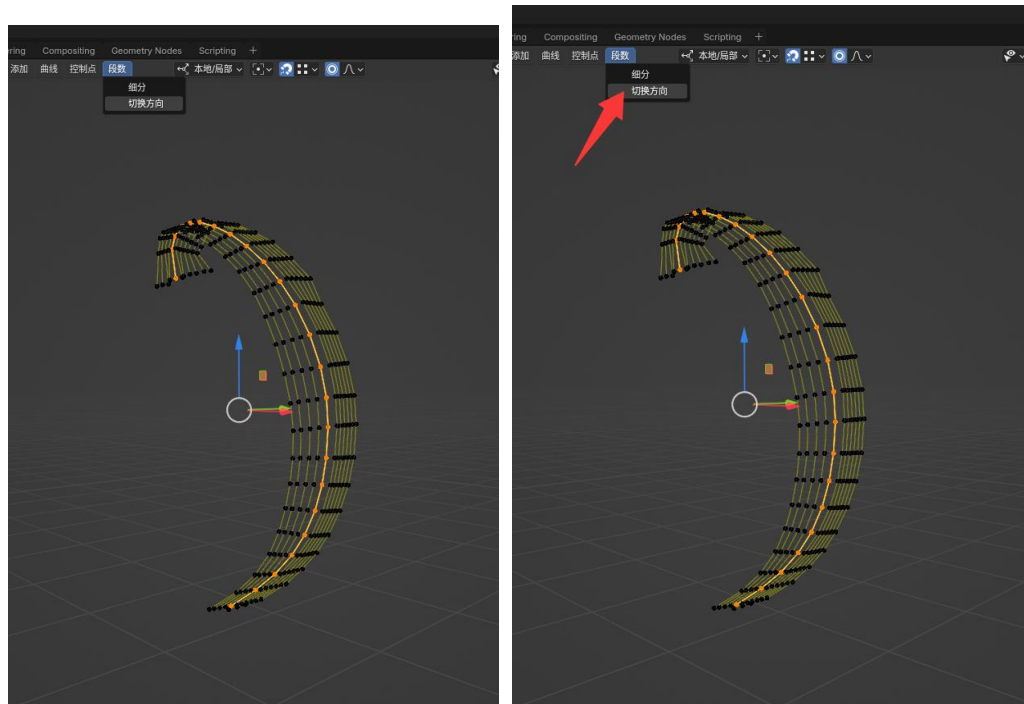
Right-click to convert the hair segments into curves.



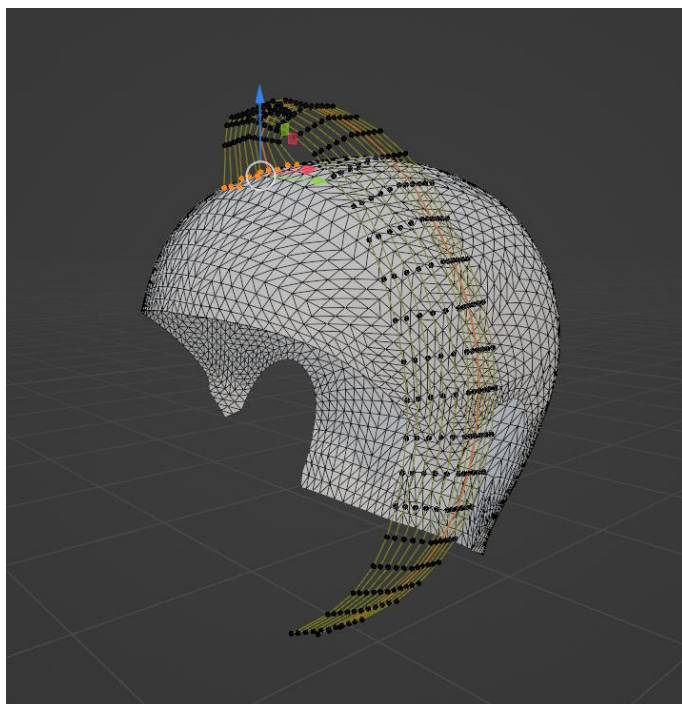
Select the start vertex of the curve. I need to start from the scalp side; you can see some curves have their start vertices pointing the wrong way.



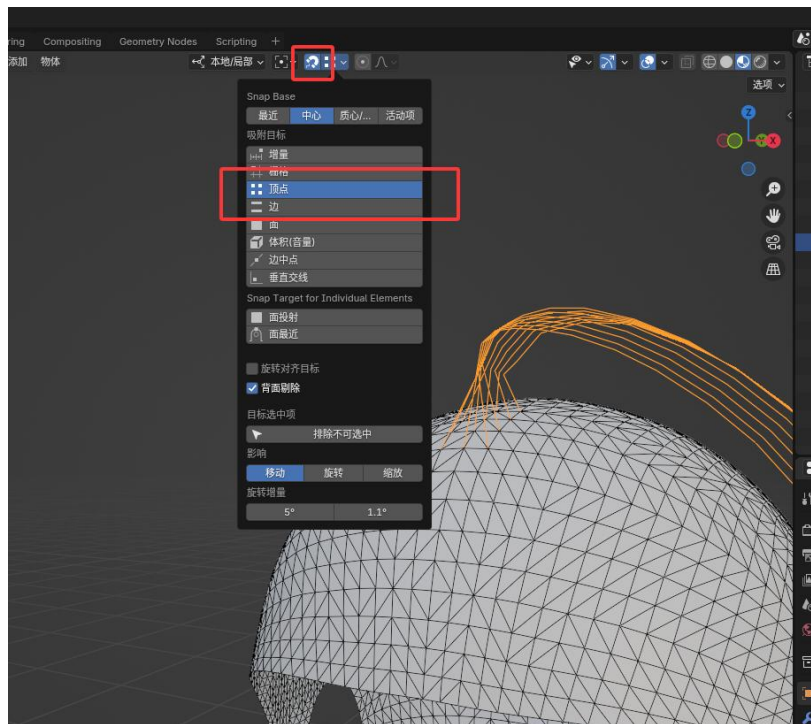
Press Ctrl L to select the entire connected curve, then reverse its direction.



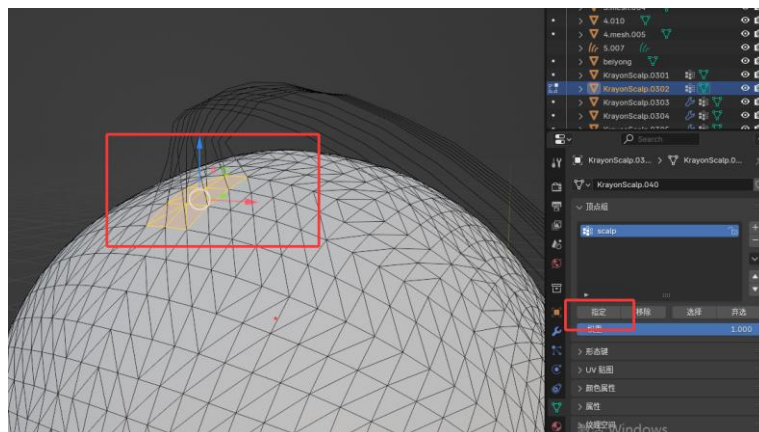
You can see the hair now starts from the scalp.



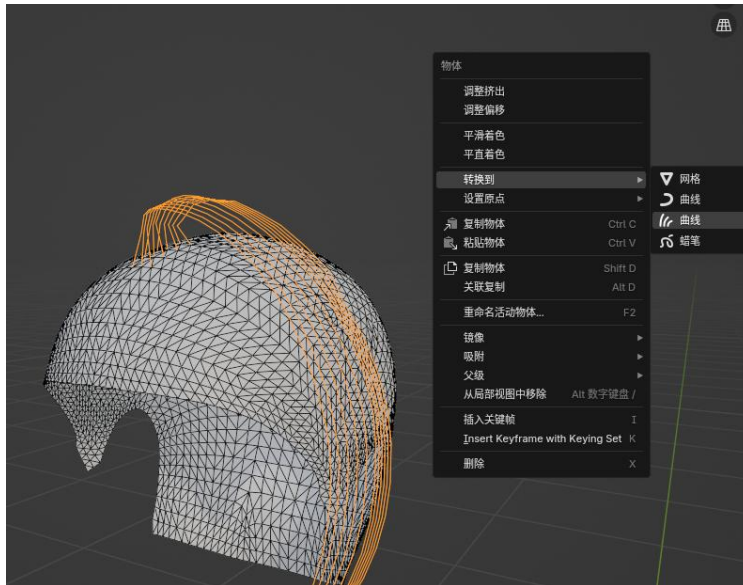
In Edit Mode, enable vertex snapping and snap the curve start points onto the scalp vertices.



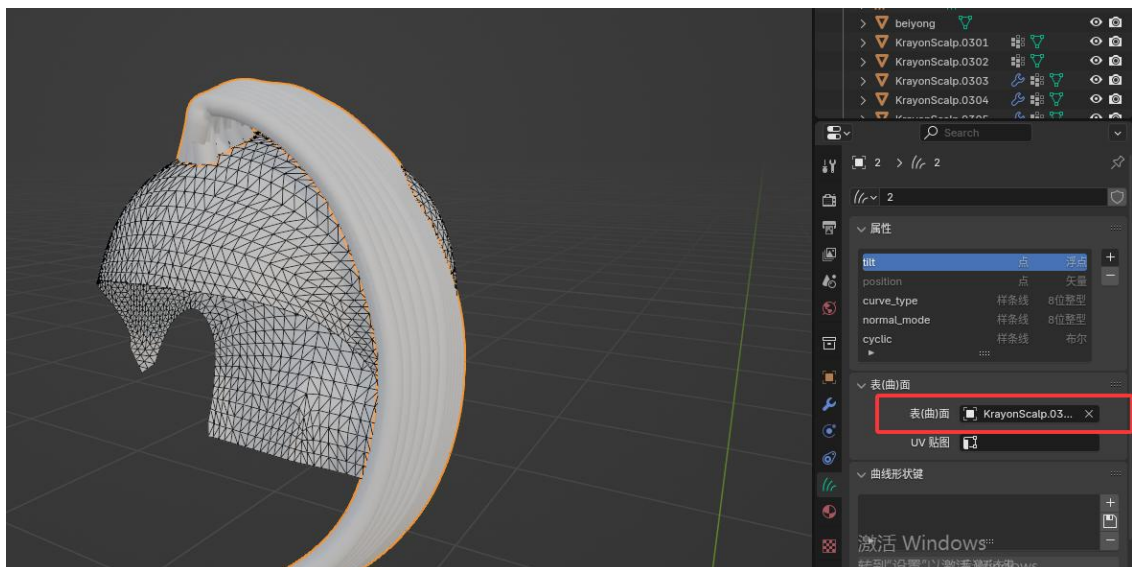
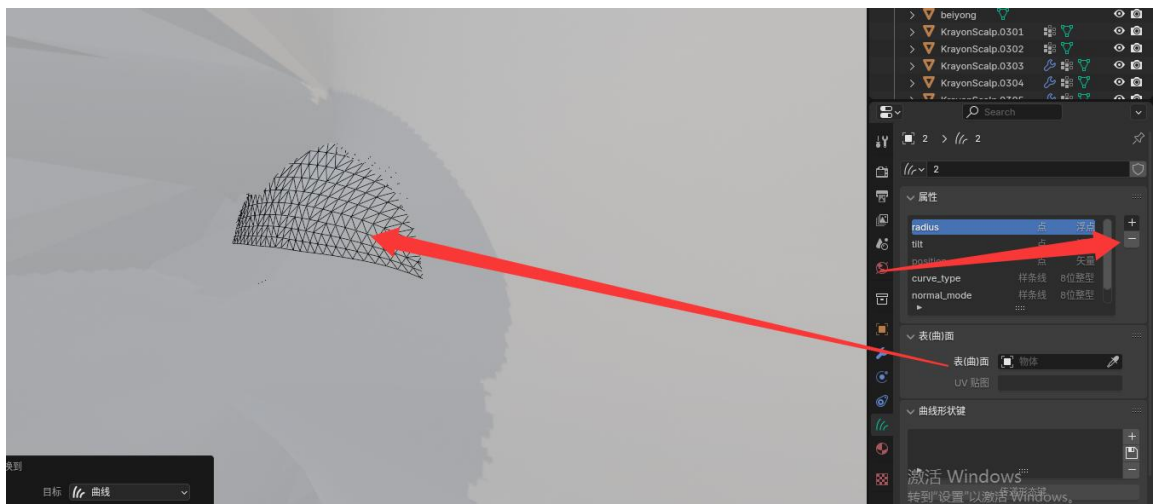
In the scalp model's "Scalp" vertex group, also assign the vertices where hair will grow.



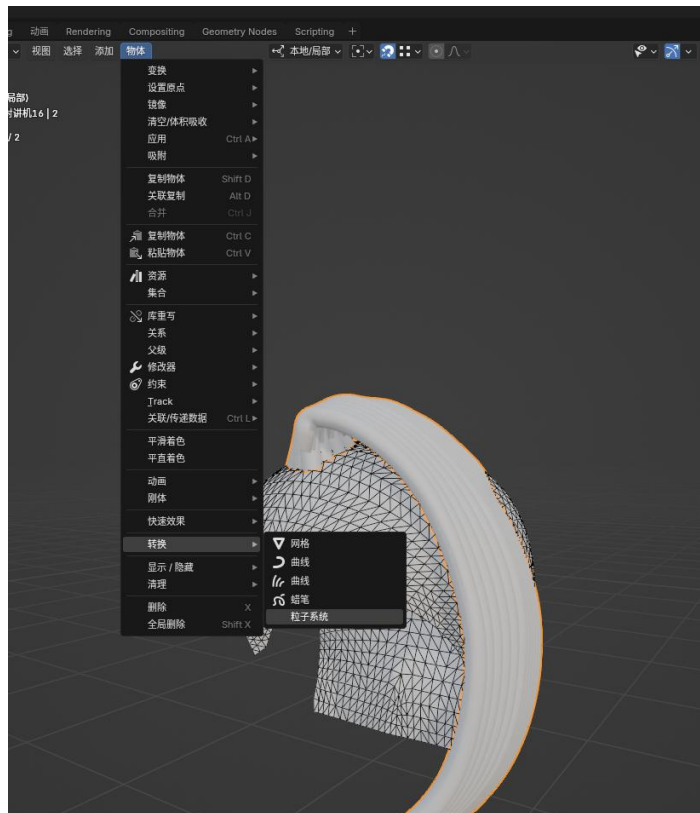
Select the hair curves, right-click to convert them into the second type of curve.



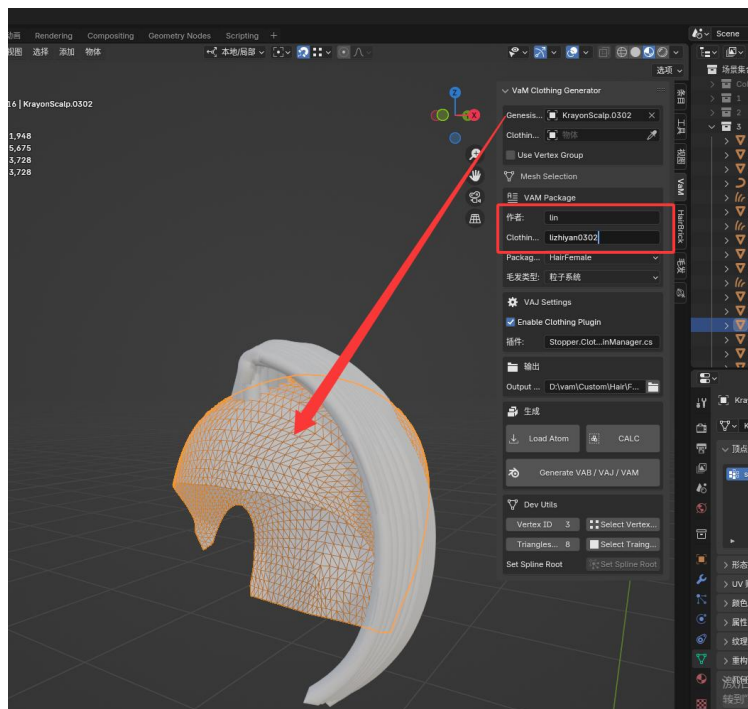
Delete the first attribute and assign the hair-generation surface to the scalp model.



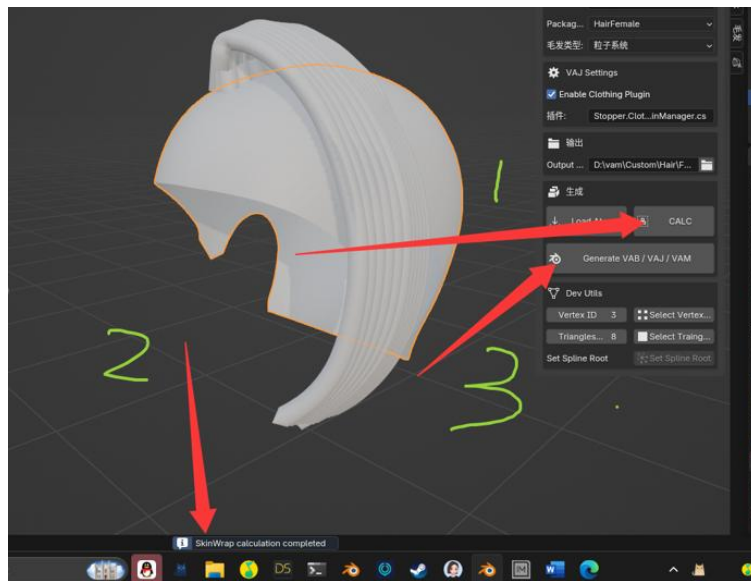
Convert the curve-based hair into a particle system.



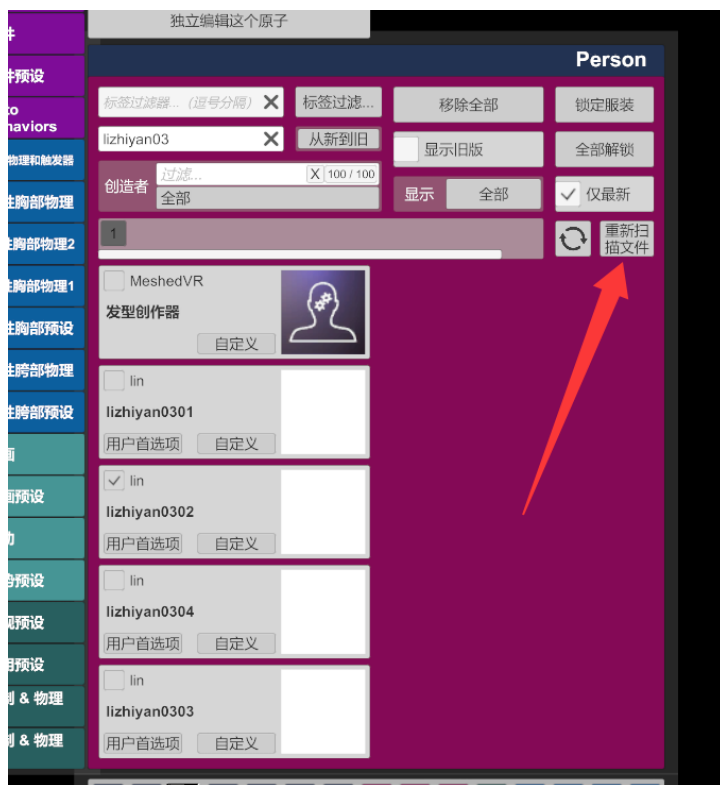
Then in the plugin, specify the scalp, plus the clothing name and author name.



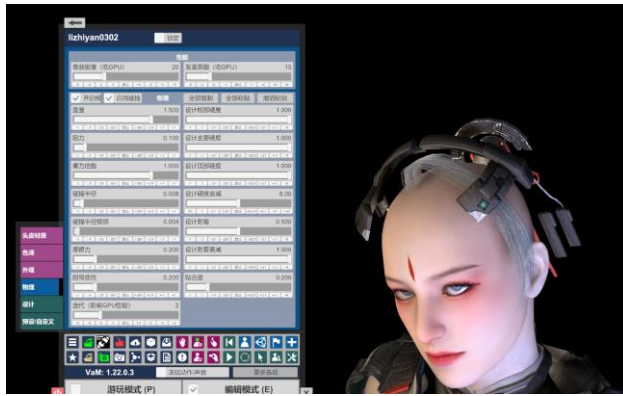
As shown, first click GALC; once it shows success, then generate the VAM hair.



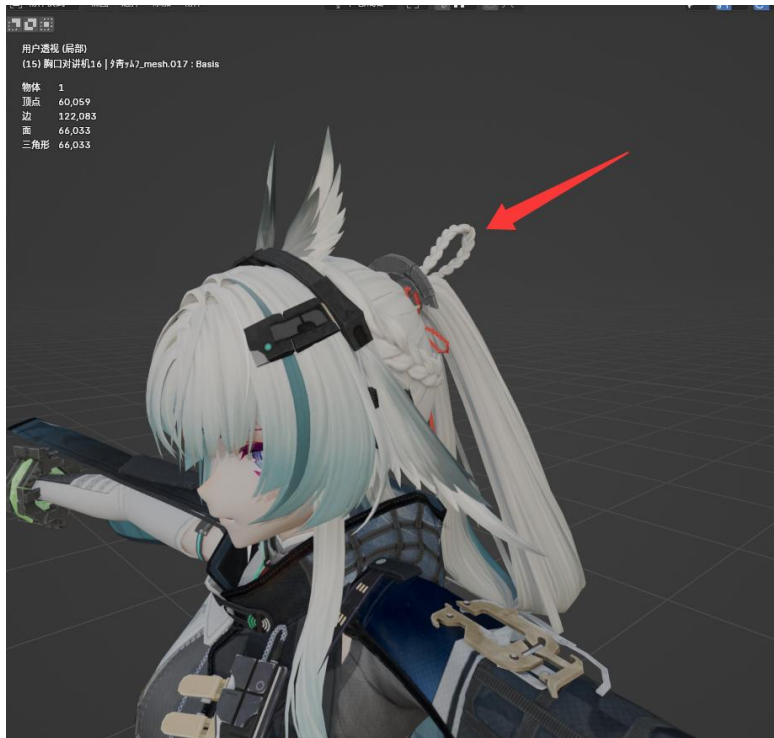
Then you can refresh the hair files in VAM and see the hair.

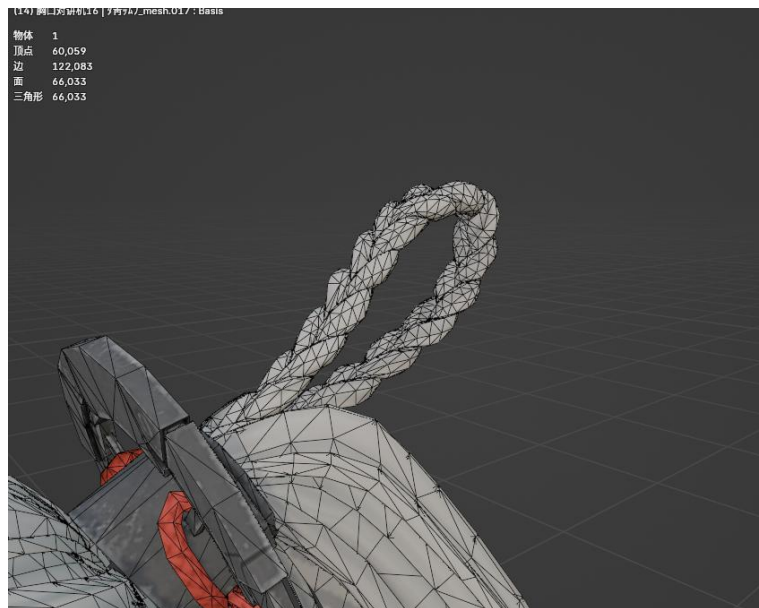


By default, imported hair hangs loosely. We need to adjust the physics to make the hair stiffer, and also change the color.

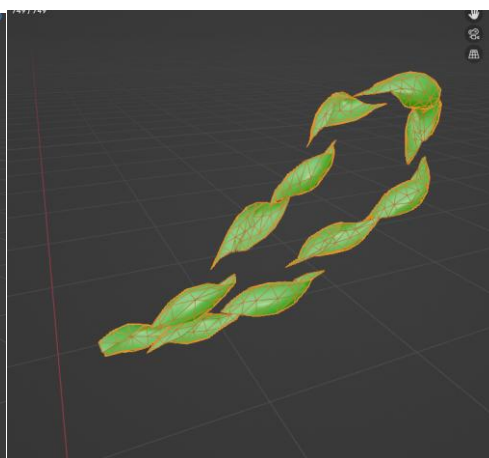
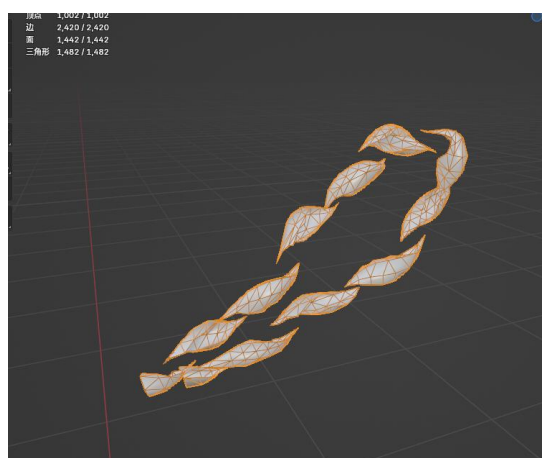
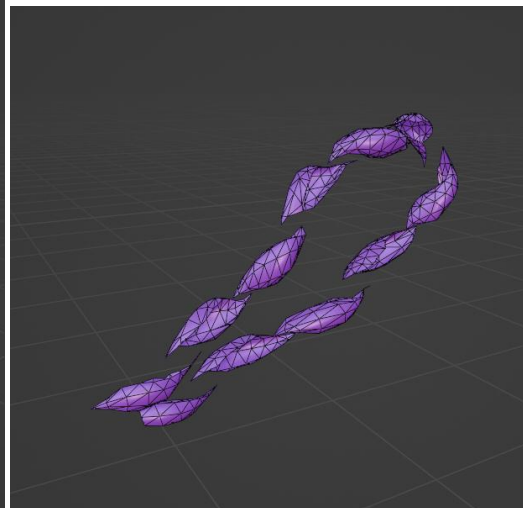
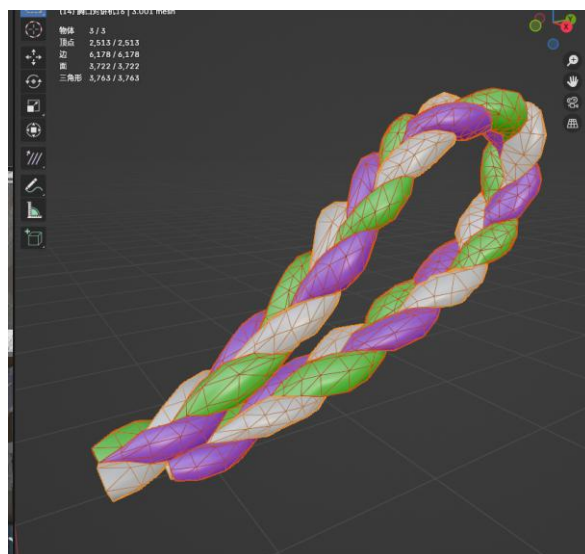


Example 2: As shown, this braid at the back of the head would be very troublesome to make in VAM.

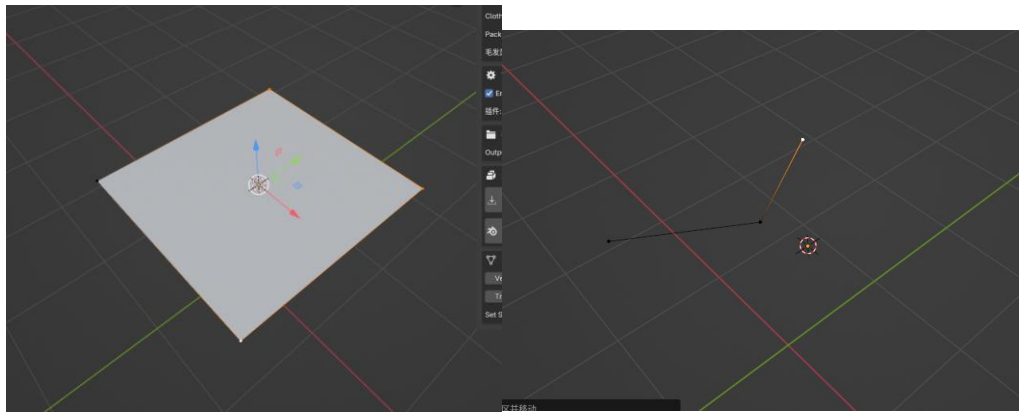




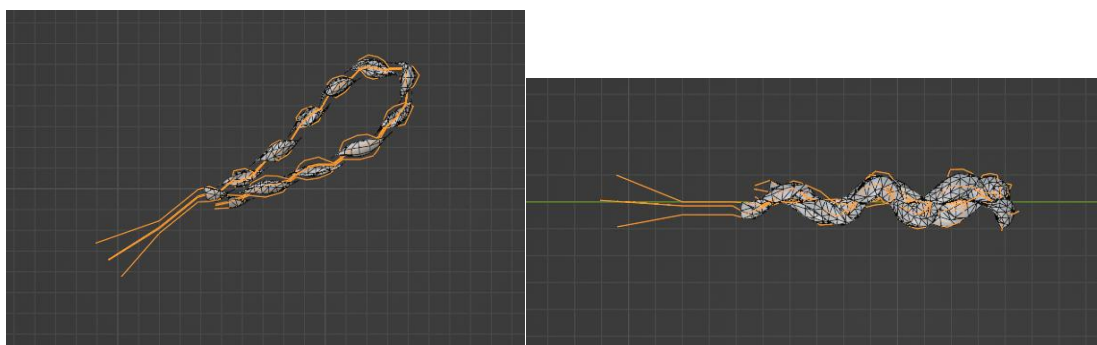
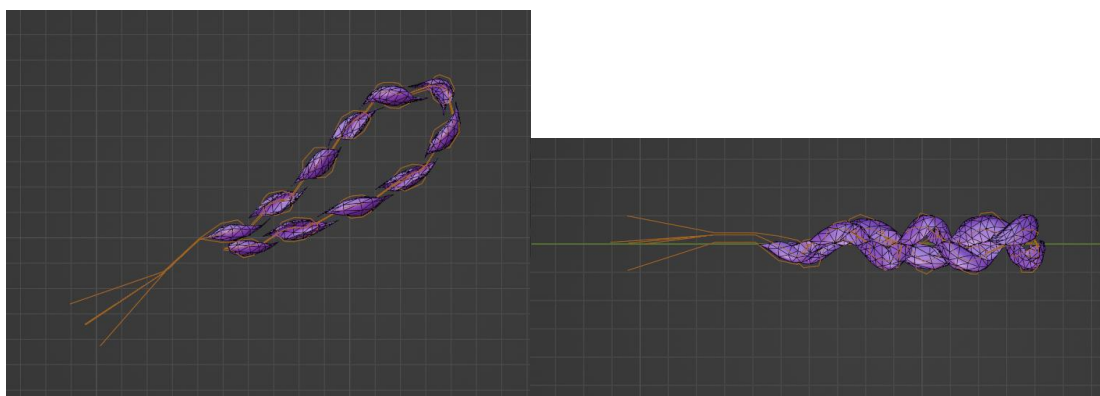
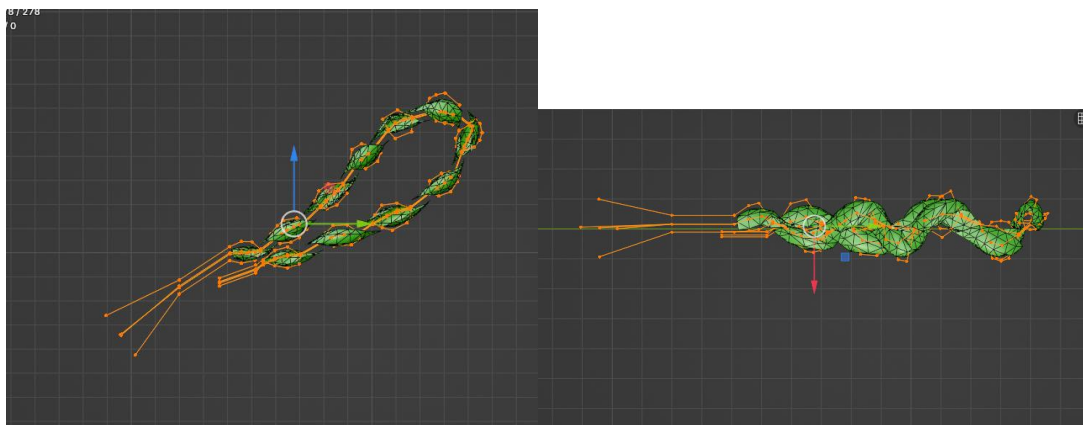
You can see this braid is made of three strands twisted together. I'll first give each a different material color to tell them apart, then split out the corresponding meshes.



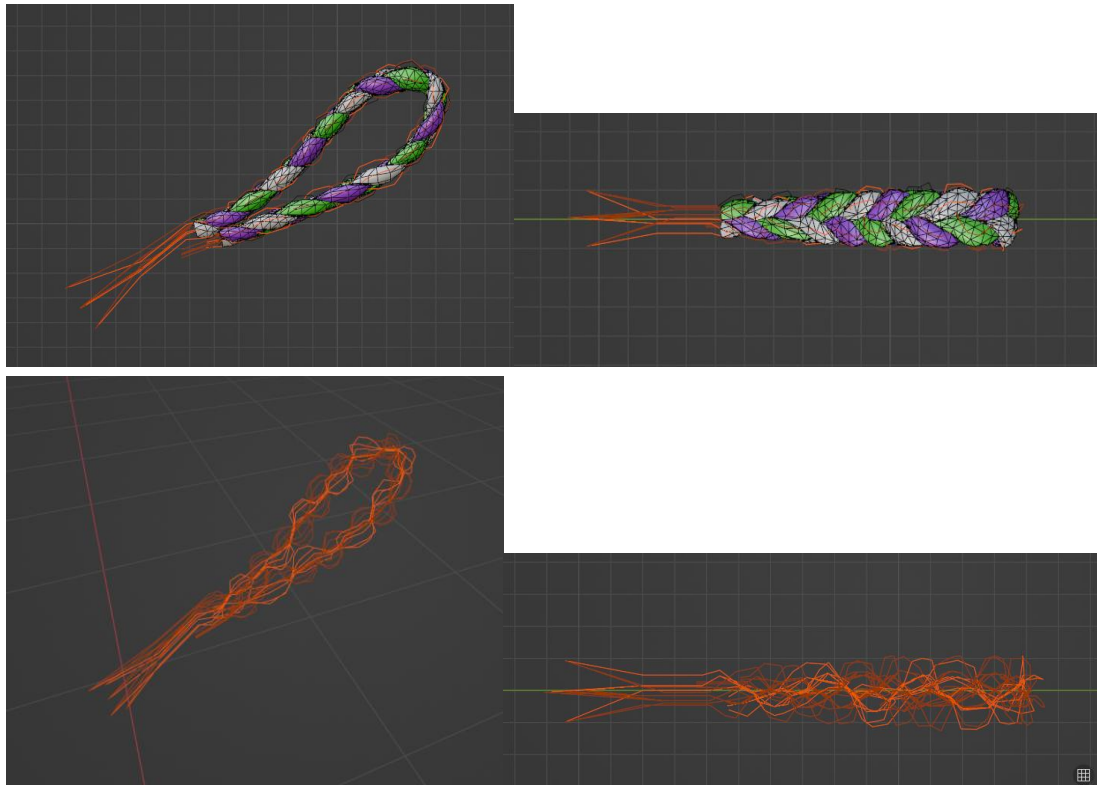
Next, I create a new plane, keep only one vertex and delete the rest, then press E to extrude it into a line.



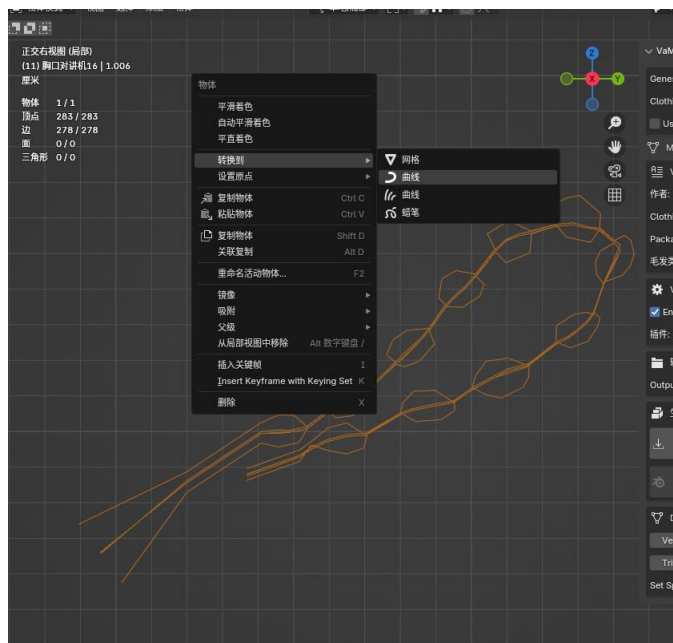
Use the line to trace the top, bottom, left, and right outer edges of each strand, giving it some thickness.



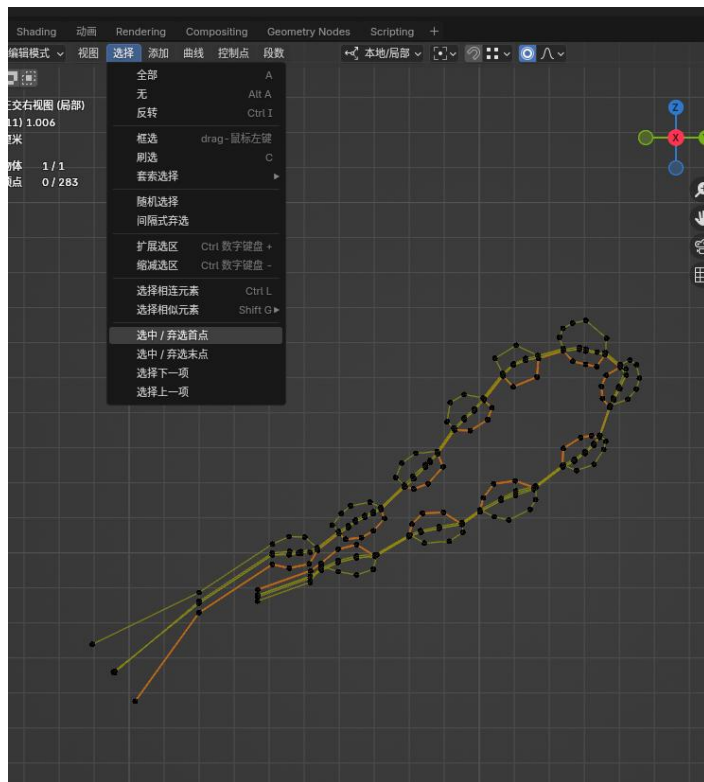
Combined, it looks roughly like this.



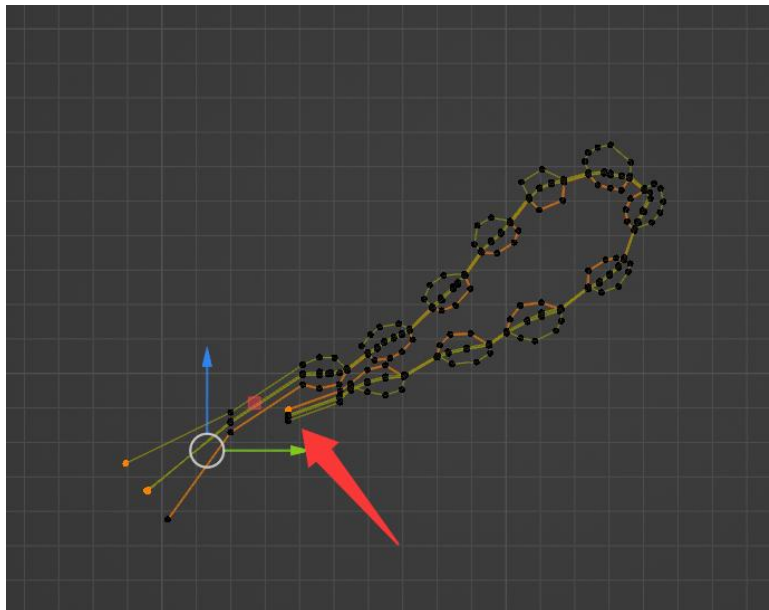
Then continue processing each strand separately. In Object Mode, right-click to convert to curves.

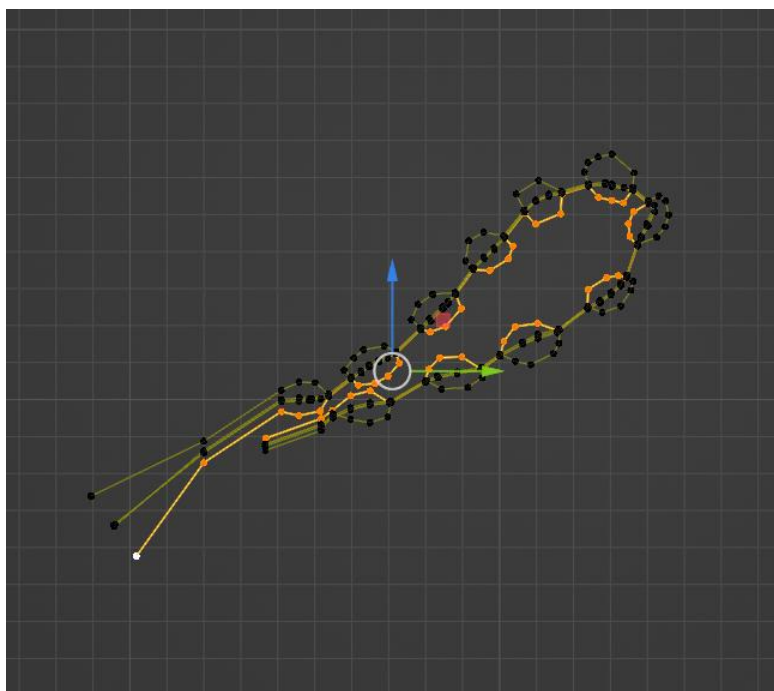


Enter Edit Mode, select the first point and check the curve direction. We need to start from the side near the scalp.

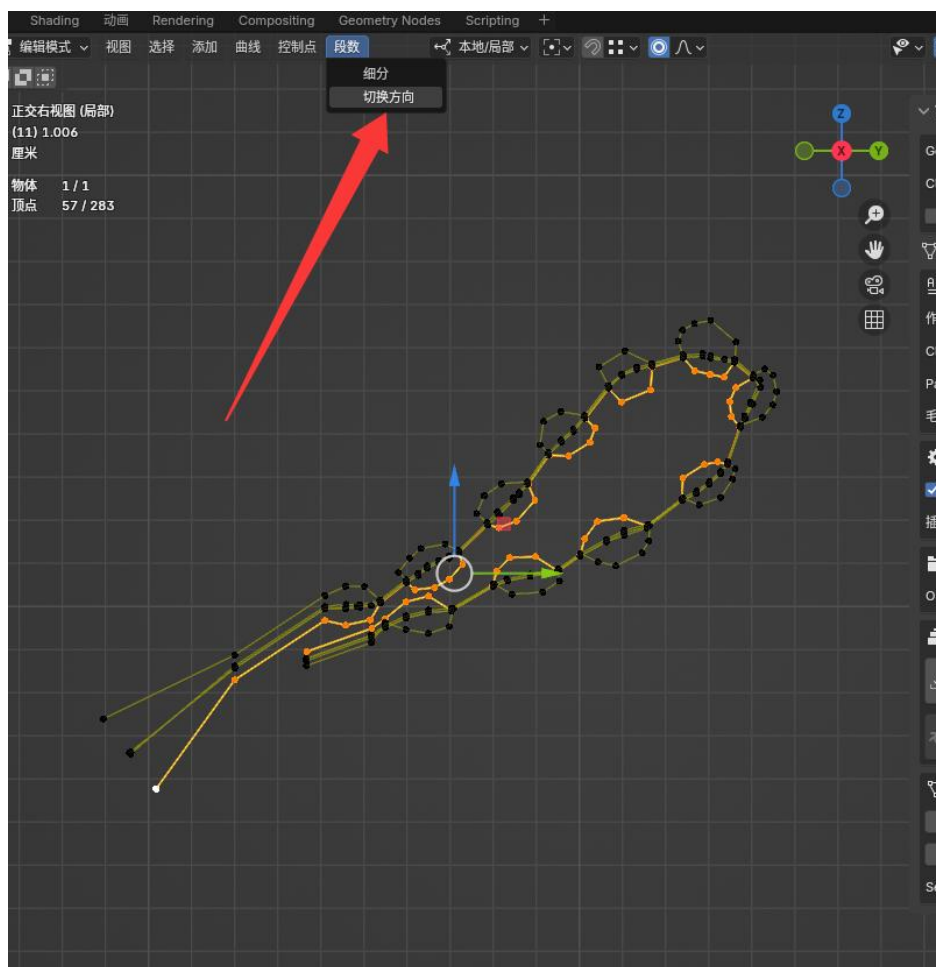


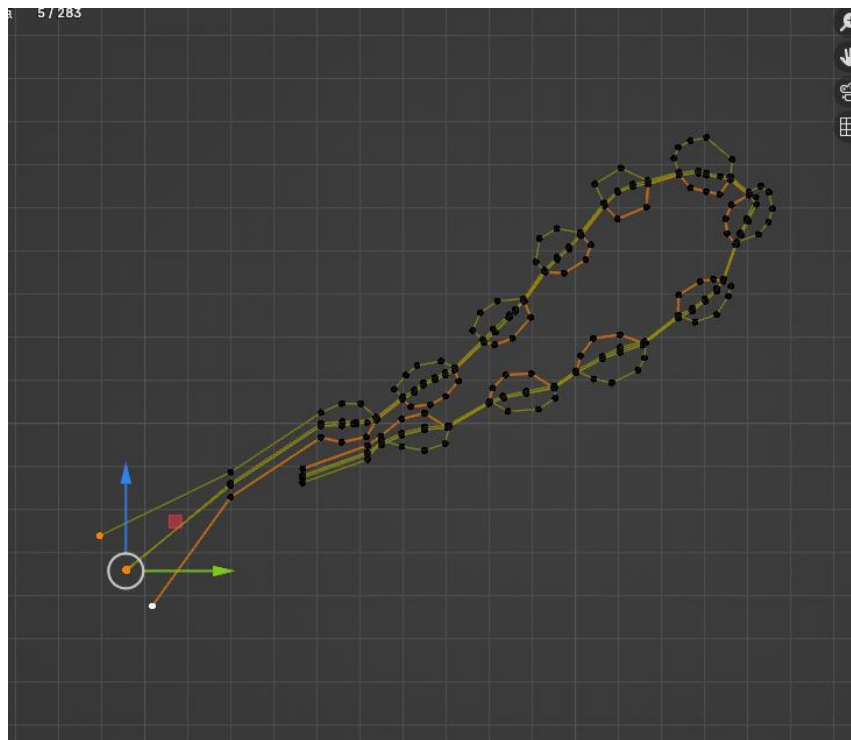
You can see one strand's direction is reversed. We deselect the strand on the scalp side, then press Ctrl L to select the entire curve.



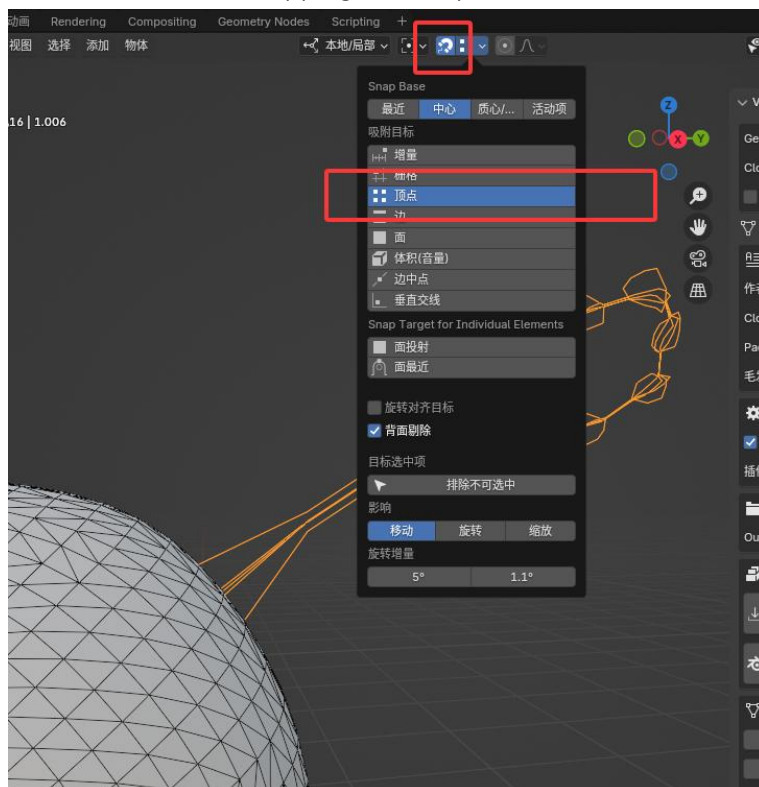


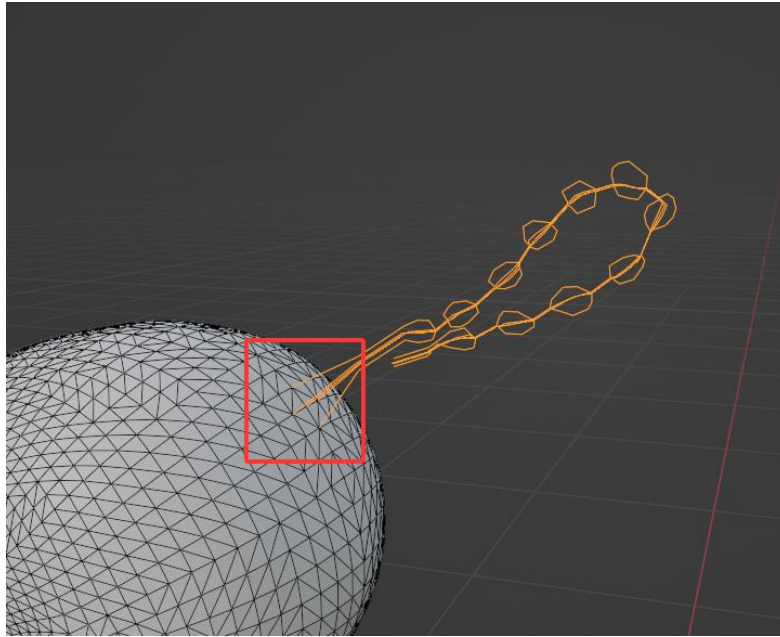
Switch the direction. Select the start point again, and you'll find the start points now align.



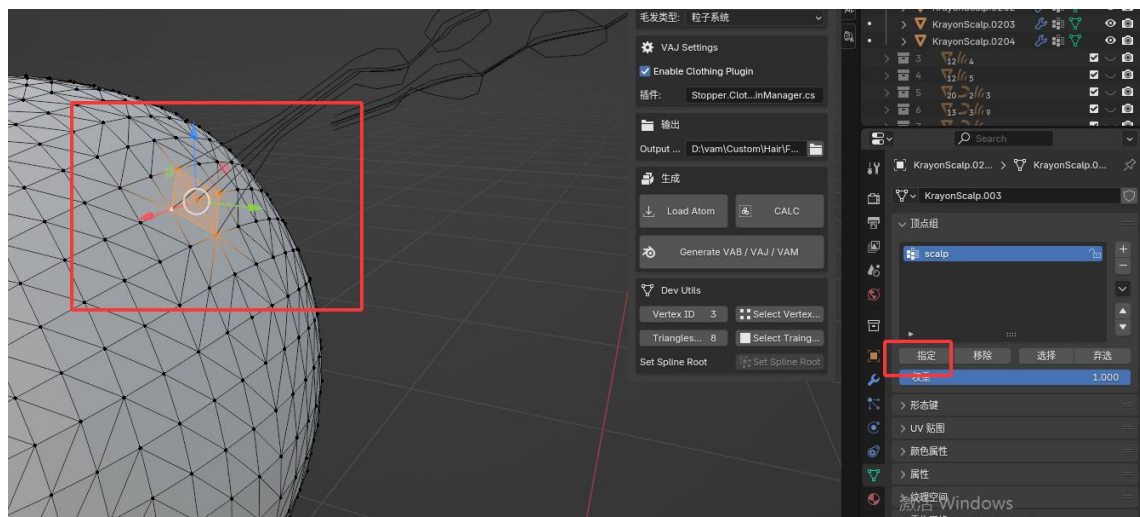


Then enable vertex snapping and snap the hair roots onto the scalp vertices.

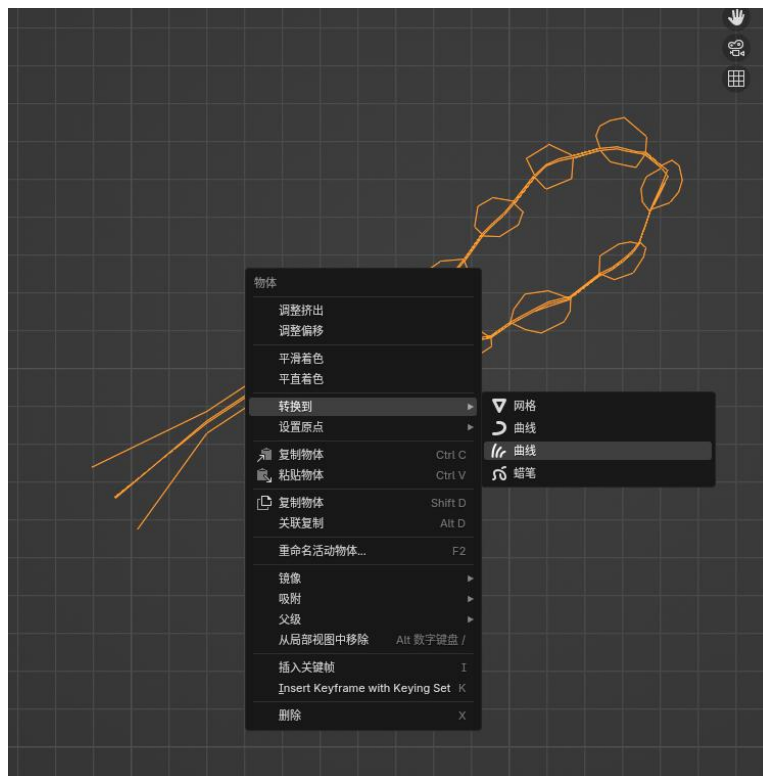




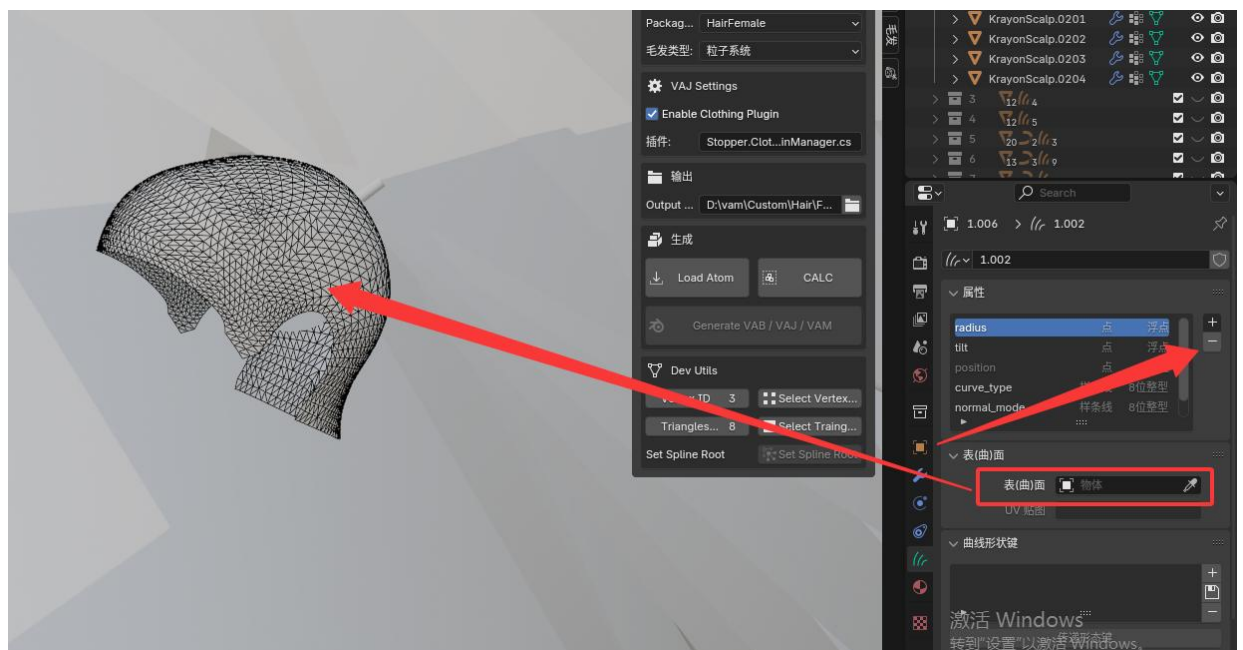
Go into the scalp's vertex group and assign the hair-root vertices to the "scalp" vertex group.

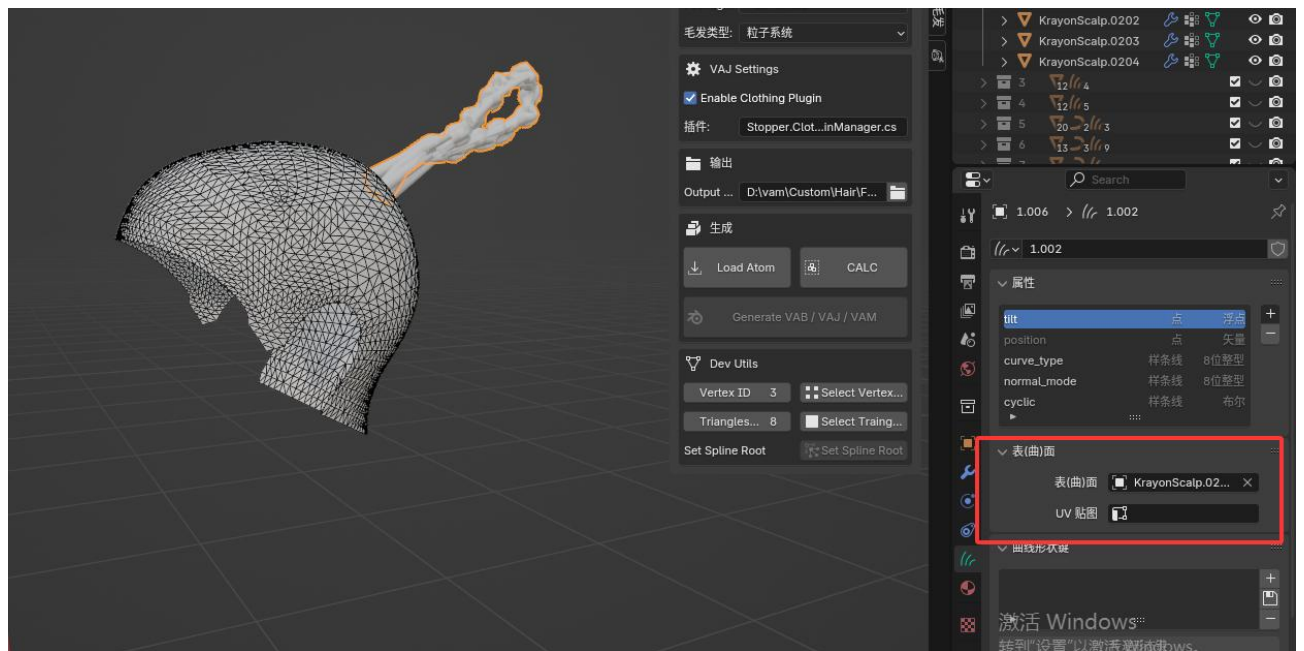


Then, in Object Mode, convert to the second type of curve.

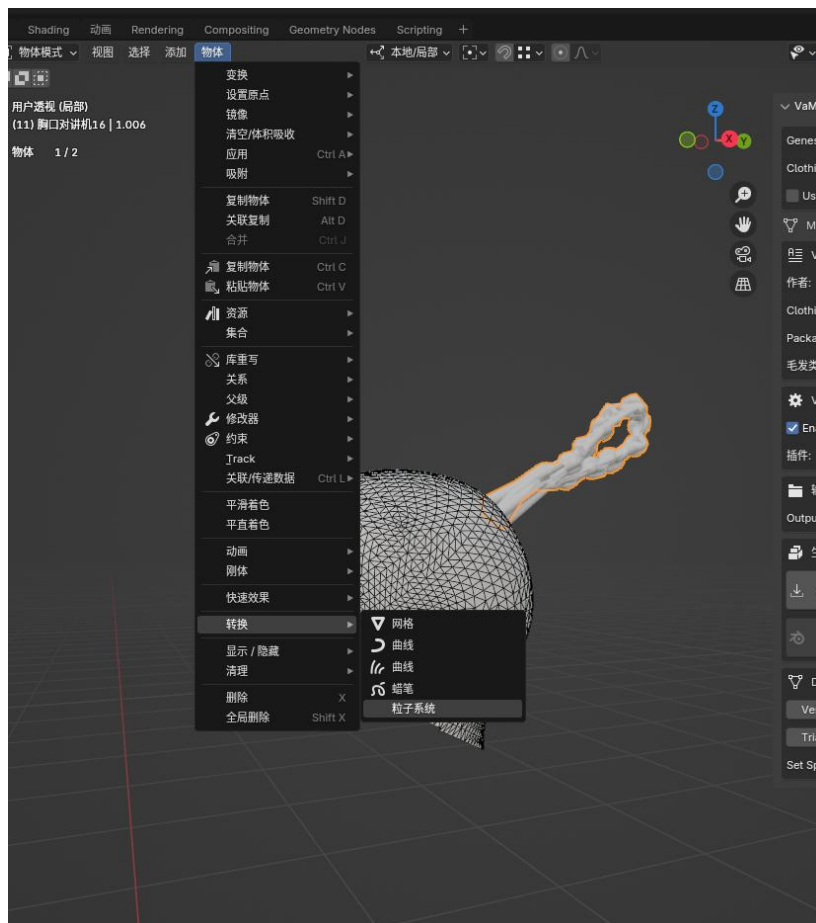


Then remove the first attribute and assign the surface to the scalp where we want to generate hair.

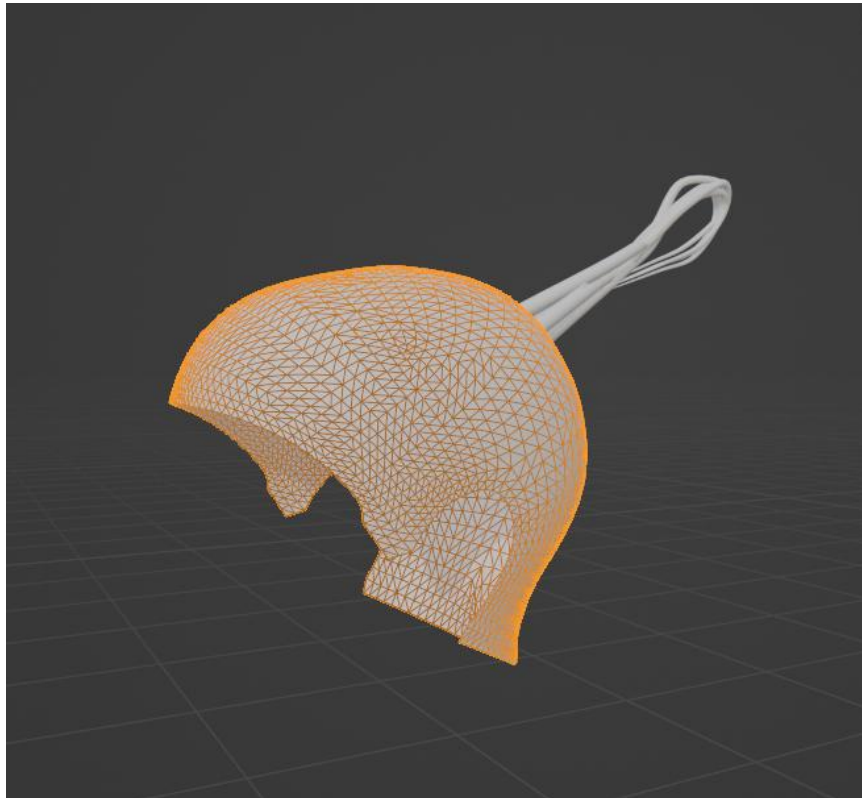




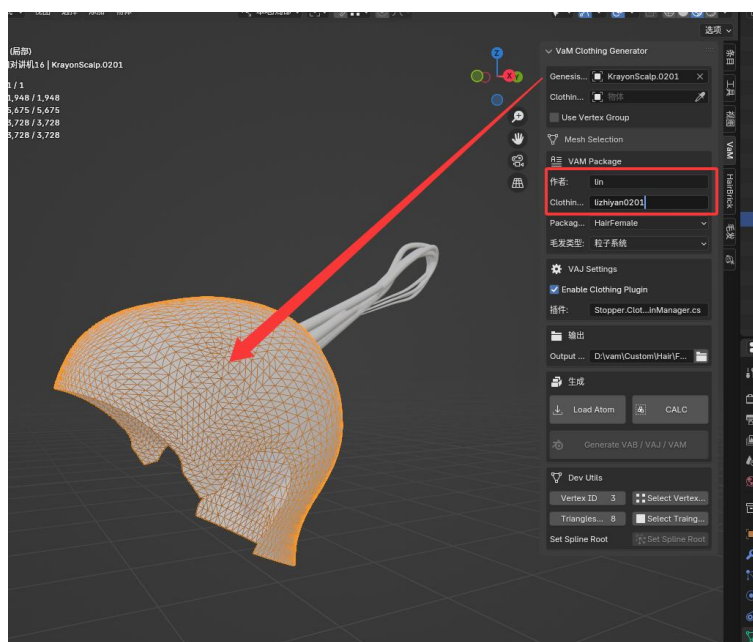
In Object Mode, convert the curve-based hair into a particle system.



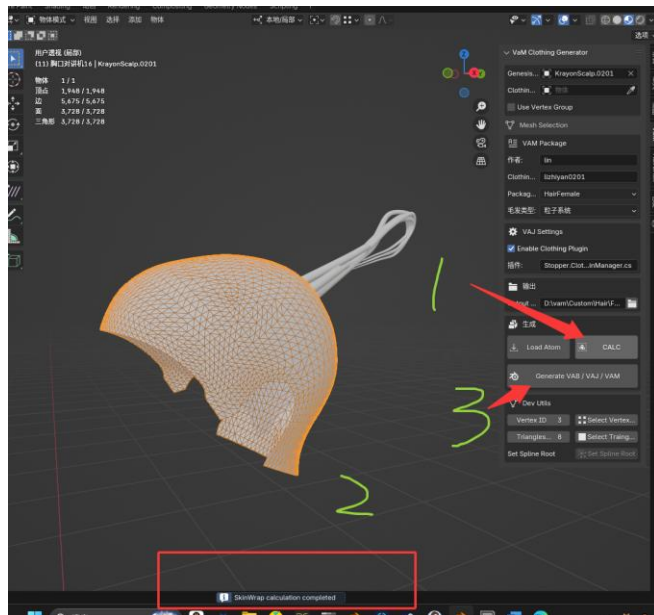
If we hide the curves, you can see hair has already grown along the curves.



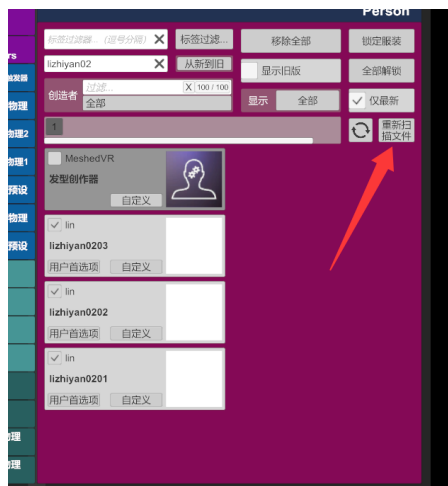
In the plugin, set the generation target to the scalp, then set the clothing and author name.



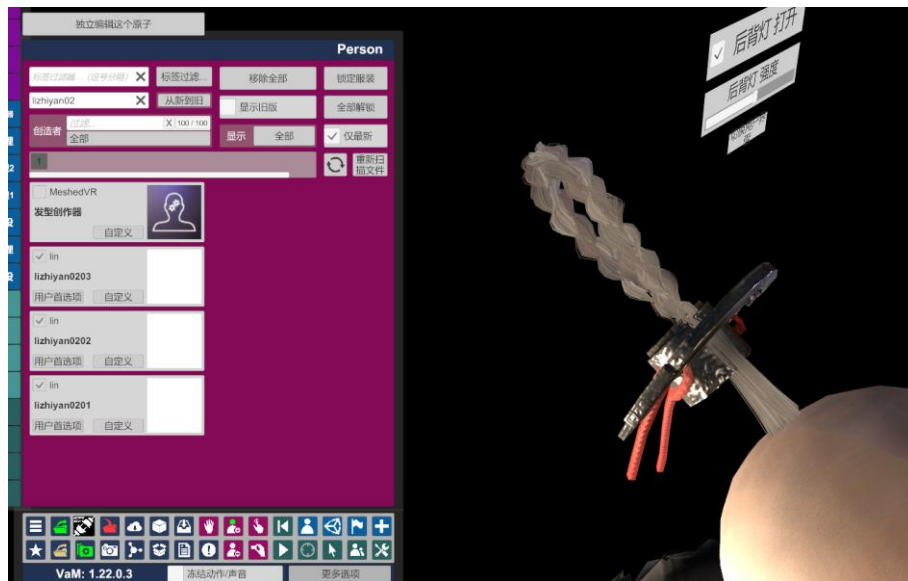
Click the GALC button; once the message below shows successful processing, click to generate the VAM file.



Then you can refresh the hair files in VAM and see the hair.

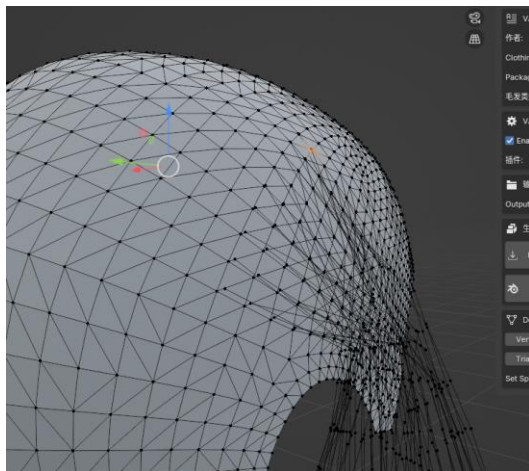


After adjusting the color and physics, it looks like the state below.



Note: You don't need the curve ends to perfectly align with the scalp vertices, but the number of vertices in the scalp's "scalp" vertex group must match the number of curves.

As you can see, the scalp isn't actually symmetrical. After I snapped one side's hair vertices to the scalp and mirrored to generate the other side's curves, they didn't align. But this doesn't affect hair generation.



Please support Endfield.

