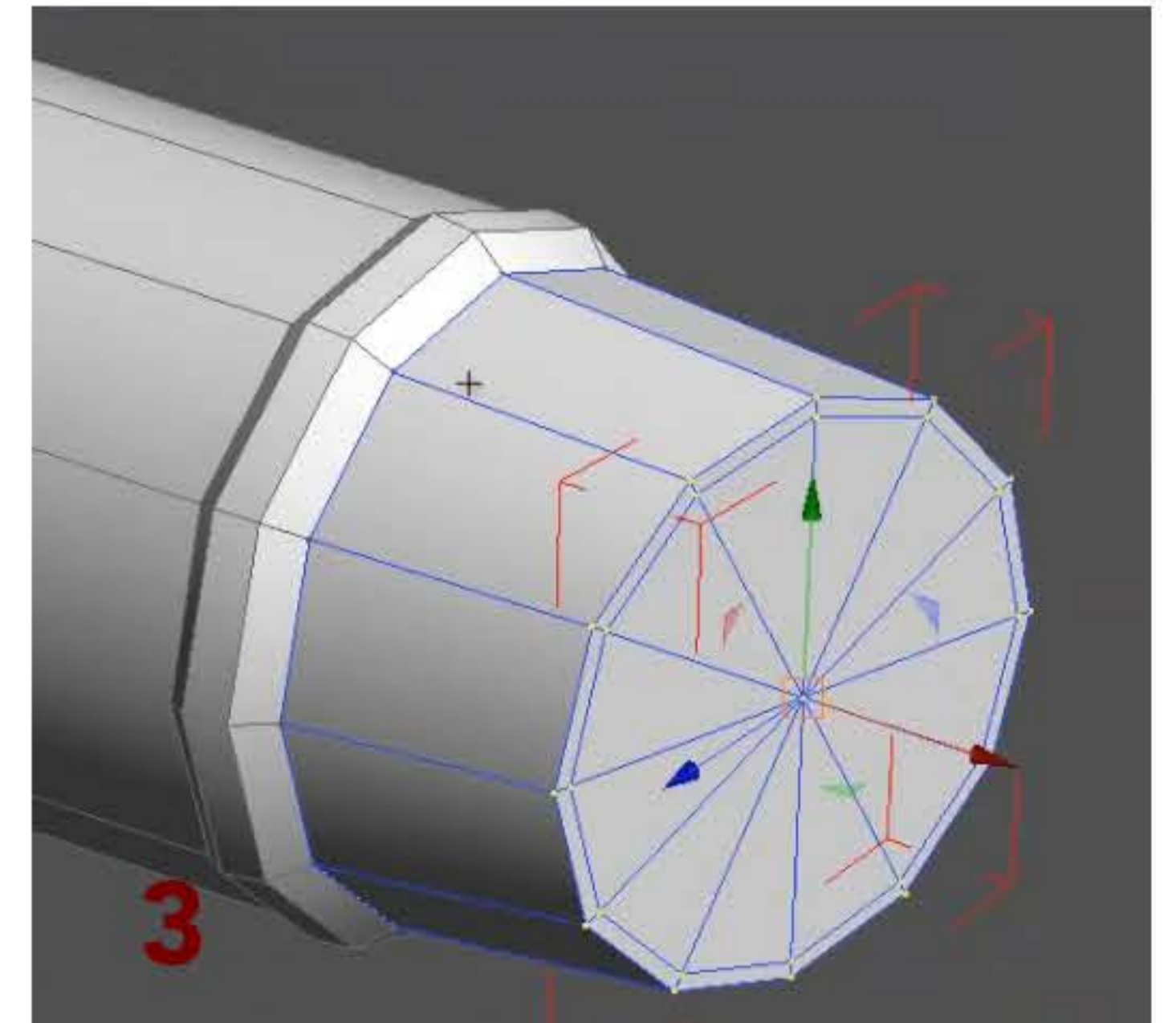
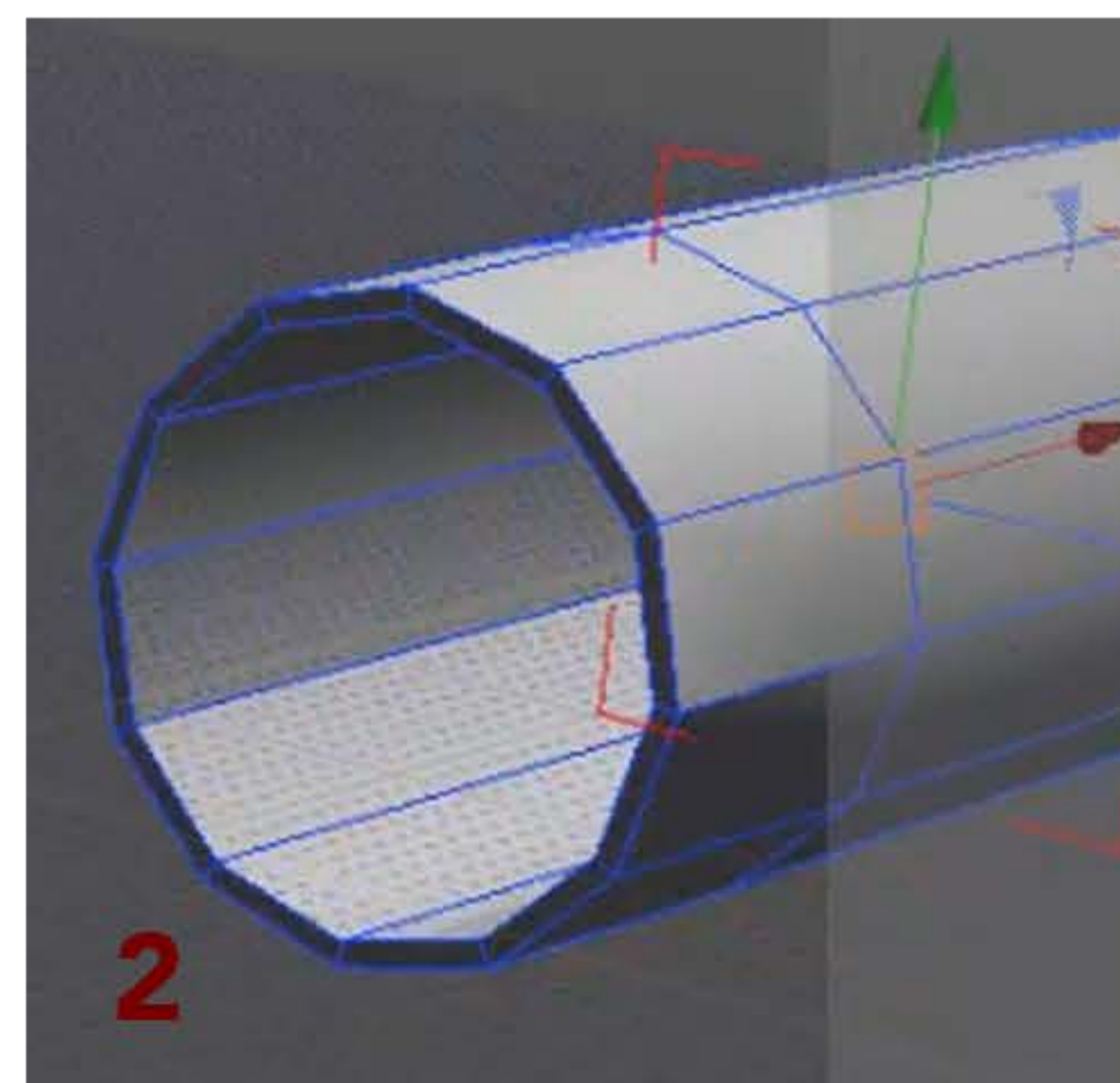
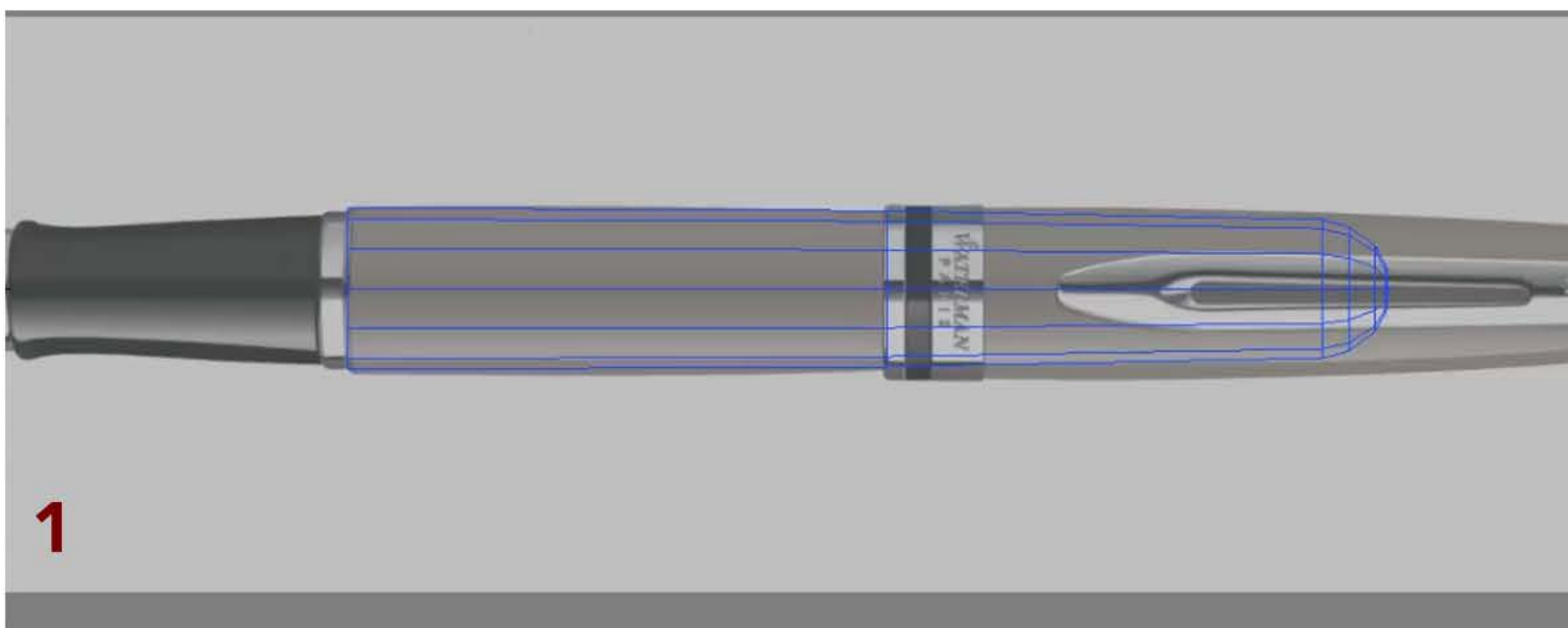


This is the PDF version of the video tutorial of the fountain pen. This tutorial explain the main part of the modeling but if you want more details, it's better to watch the video on our official Youtube Channel: Shade3D Channel.

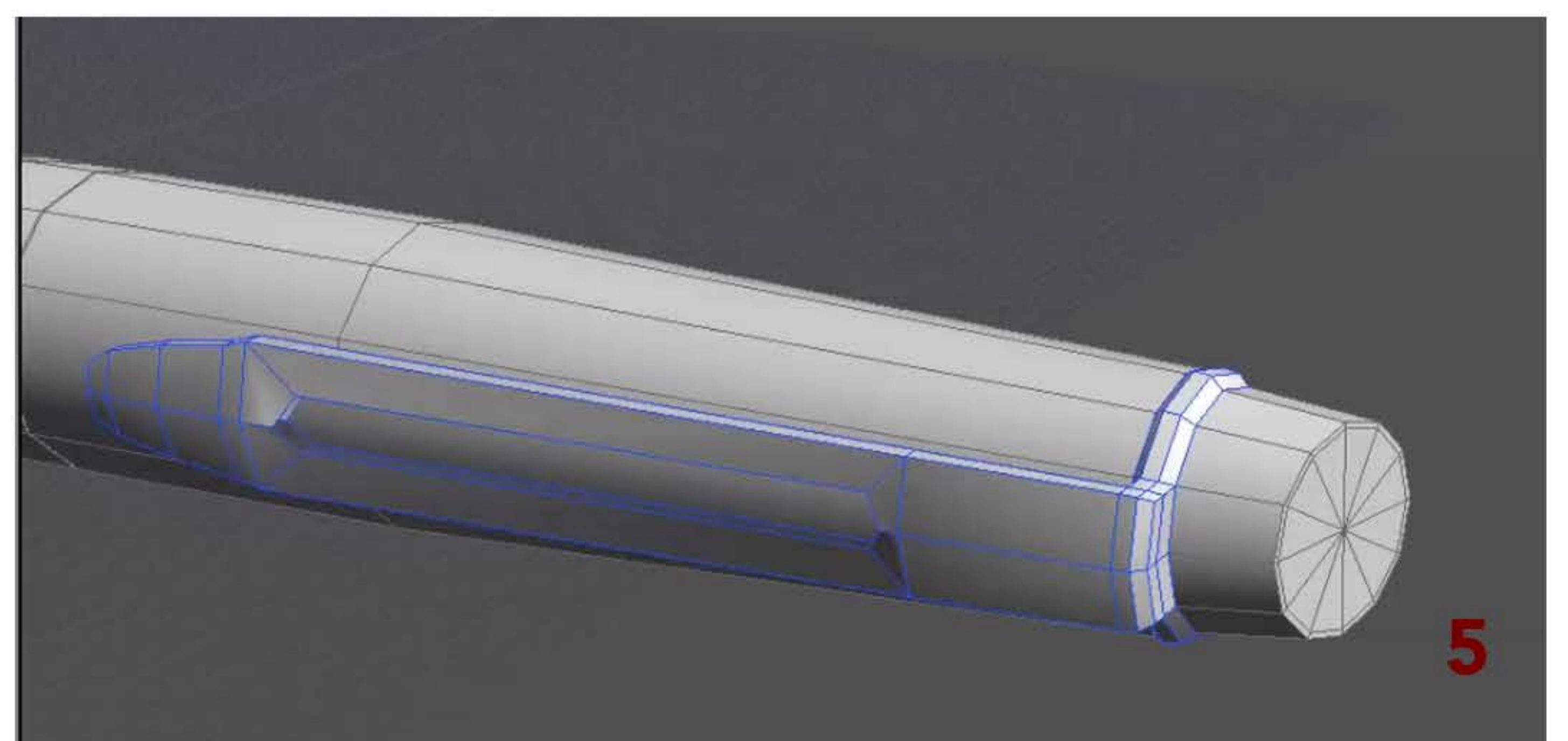
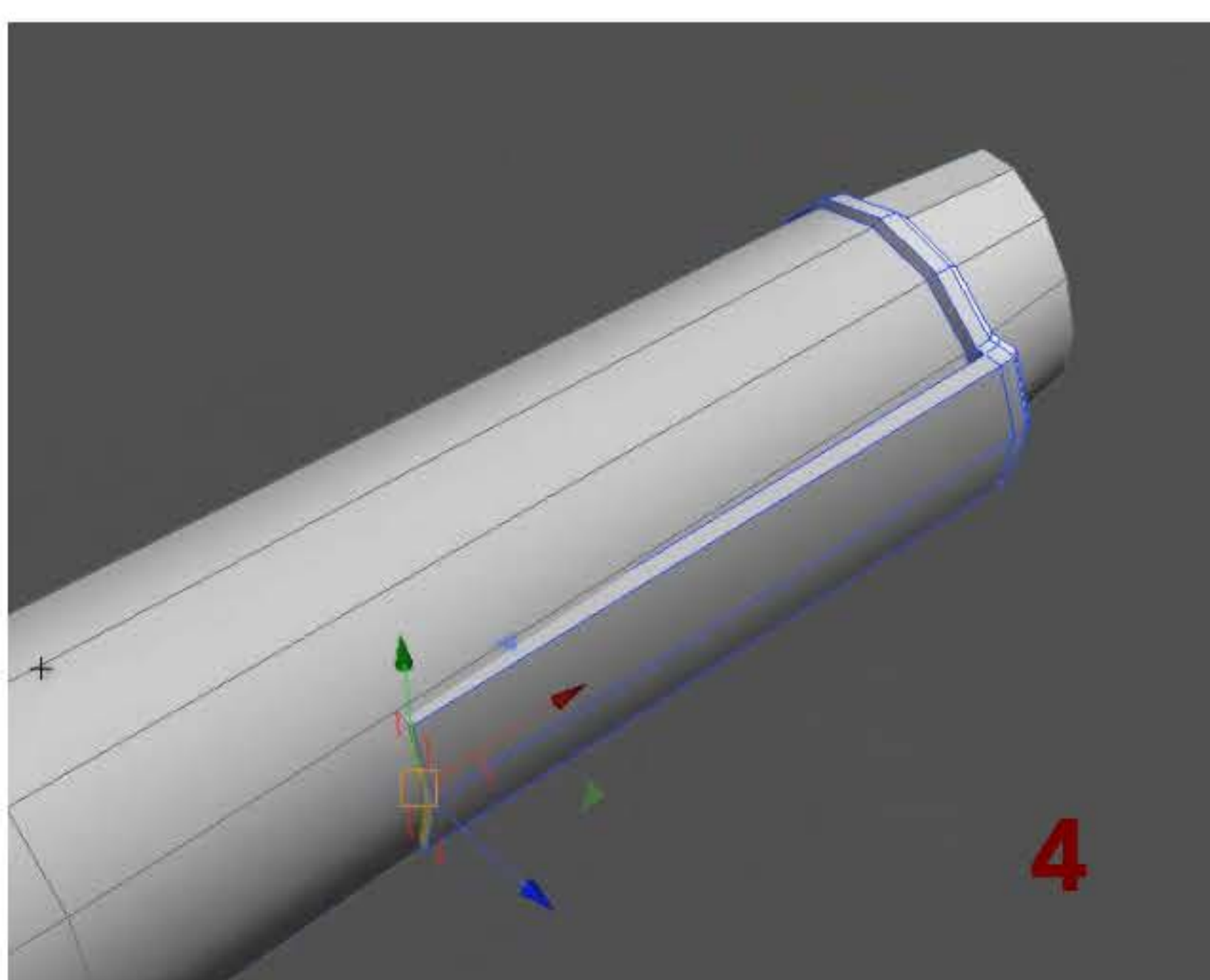
Modeling of the fountain pen :

After gathering a few references for your pen, put an image on Shade's background. I choose a Waterman pen for for this model. The model is made out of three big parts : the nib, the "body" and the pen cap. For this model, I divided the body of the pen in different meshes for more simplicity.

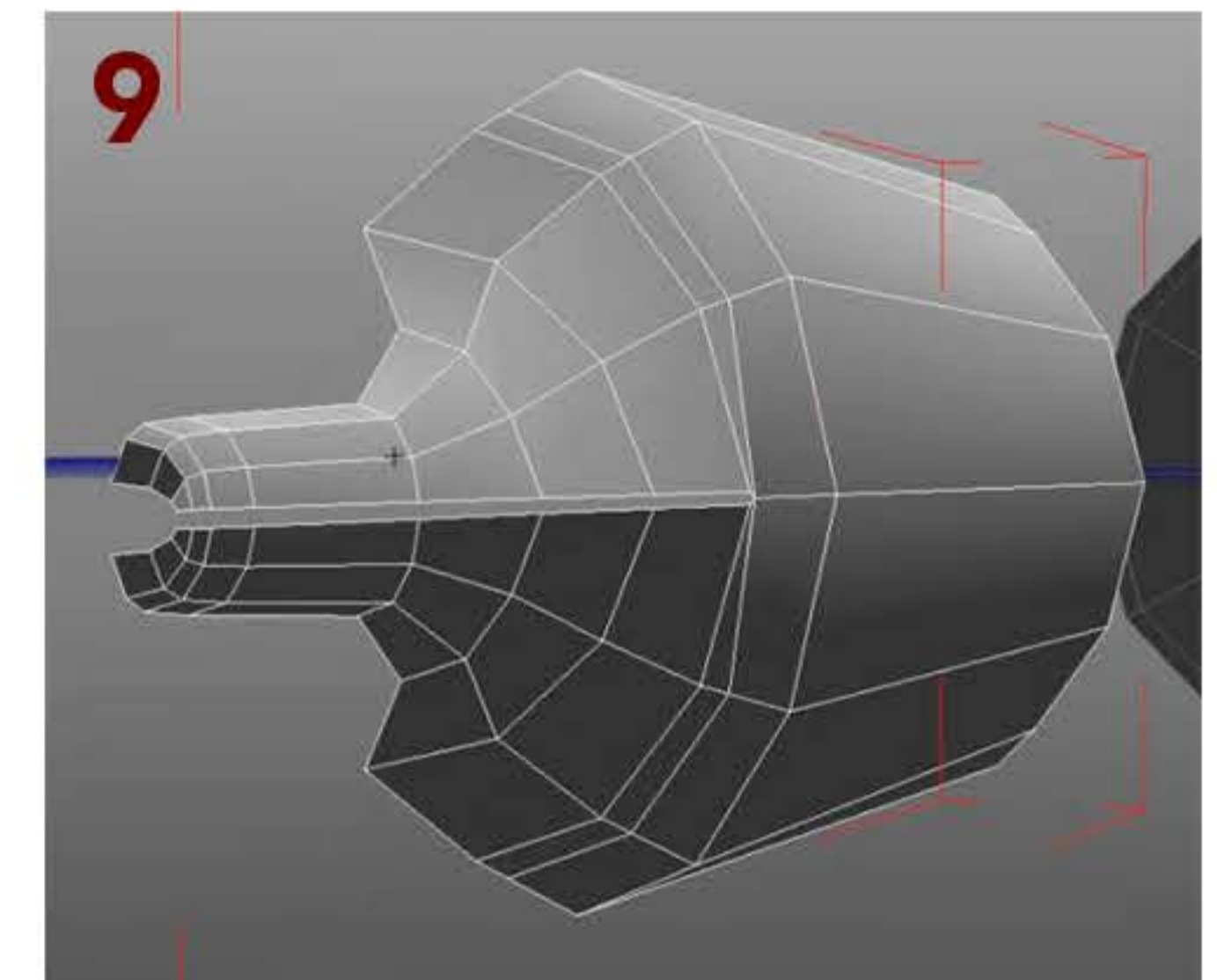
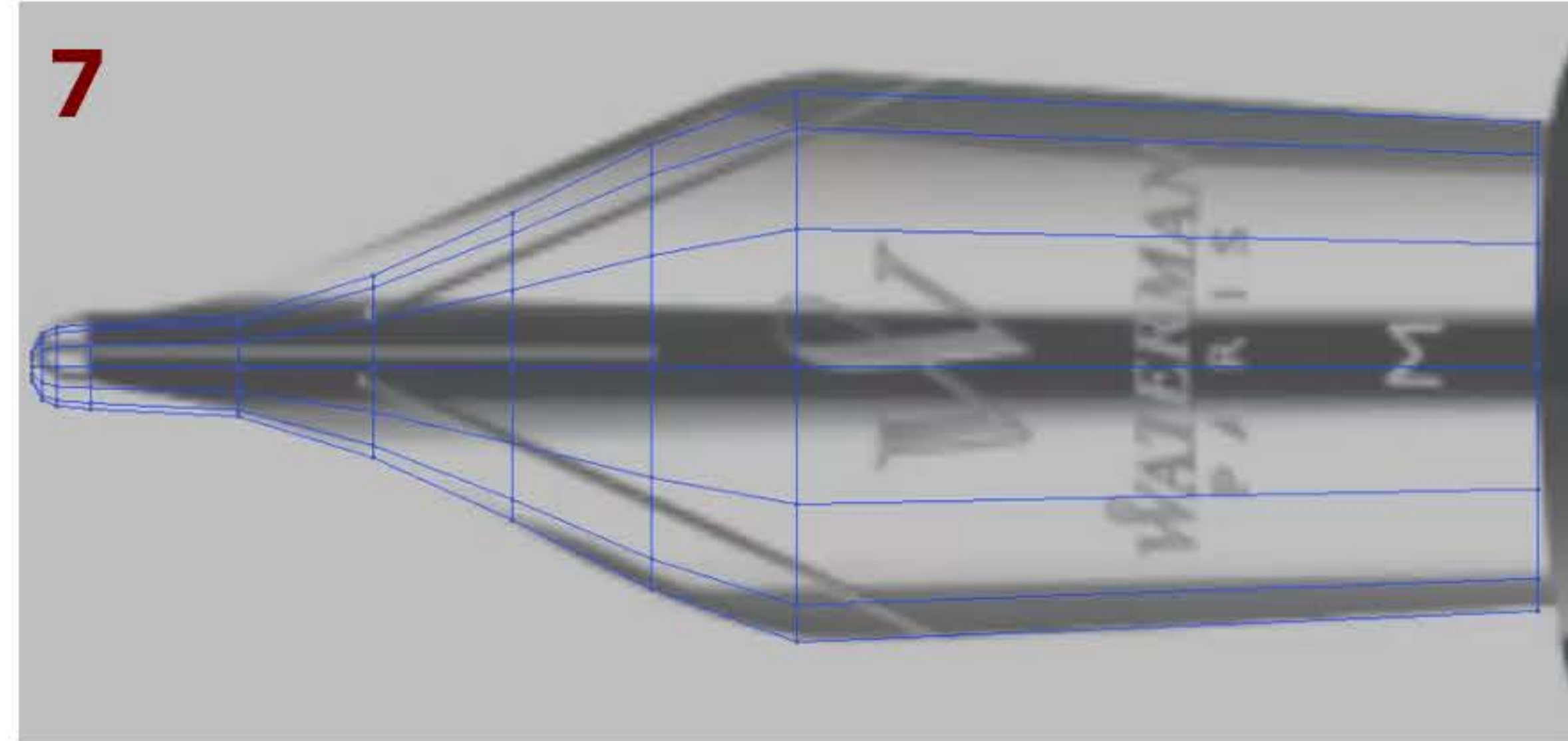
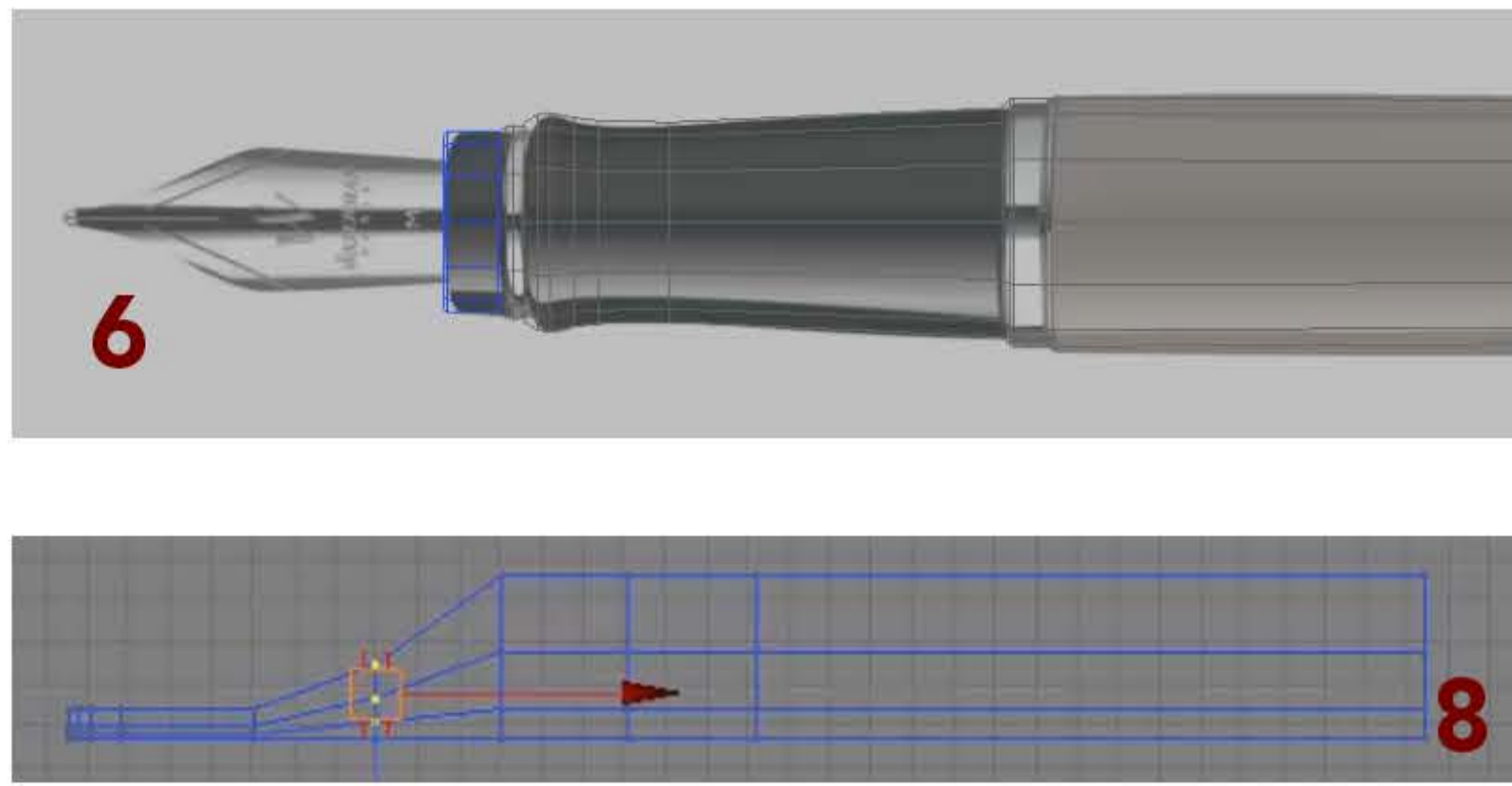
1. Let's start this pen! We first start with a basic cylinder for the biggest part of the body. We add a few slice loop at the end to make it look rounder. We just need a base to do the pen cap, we will finish it later (picture 1). The pen cap will be in three different parts : the grip, the flat part on the top and the main part. Lets make a new cylinder for the main part. As we need to do an extrusion on the inside to put the pen inside the pen's cap, we will do an inset on the cylinder's cap, then, an extrusion (picture 2). Then, we create another cylinder, just for the base of the grip and another one for the flat part of the cap (picture 3). For the last one, we just need to select the last vertices and do a rotation to have the right angle for the flat part.



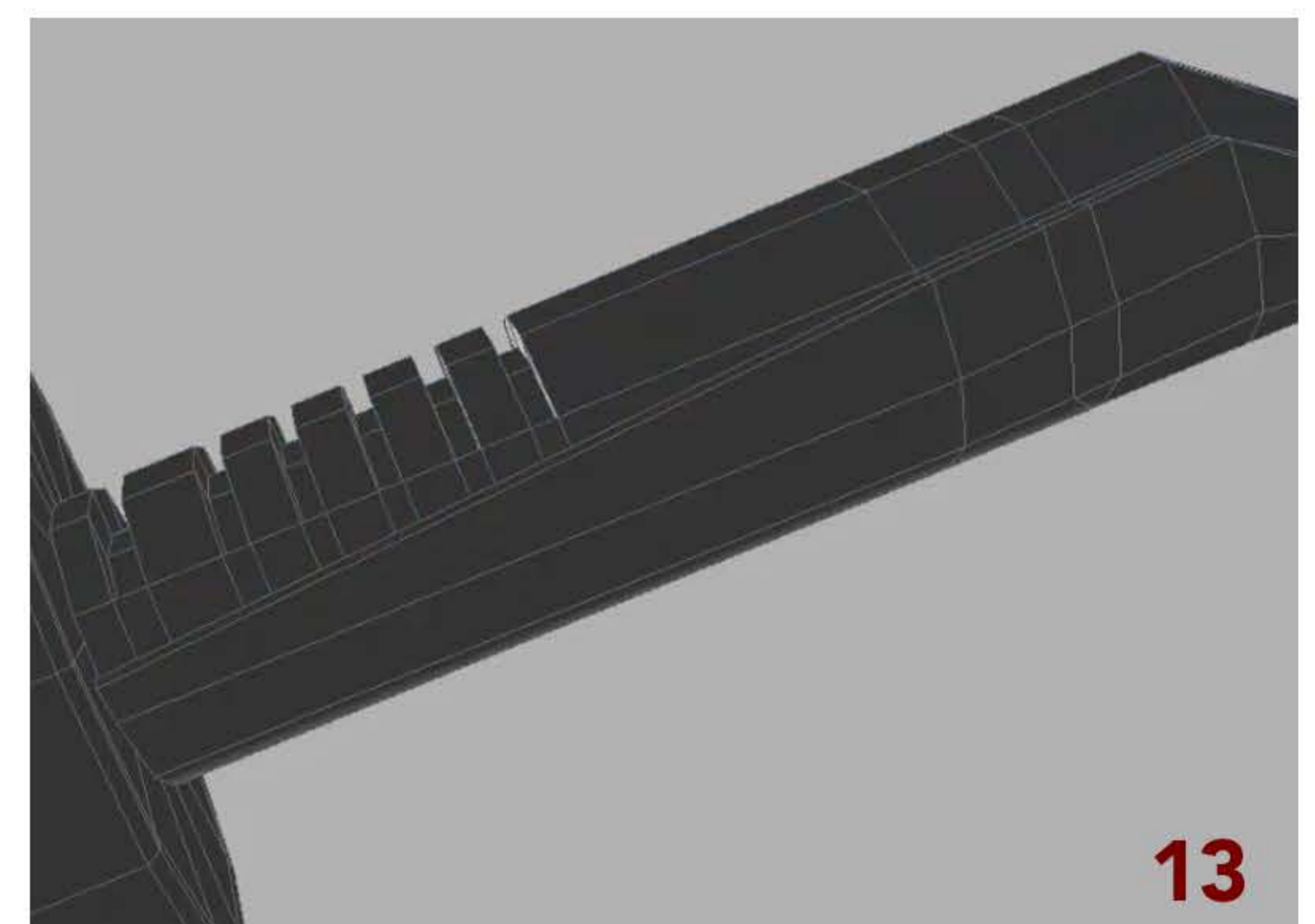
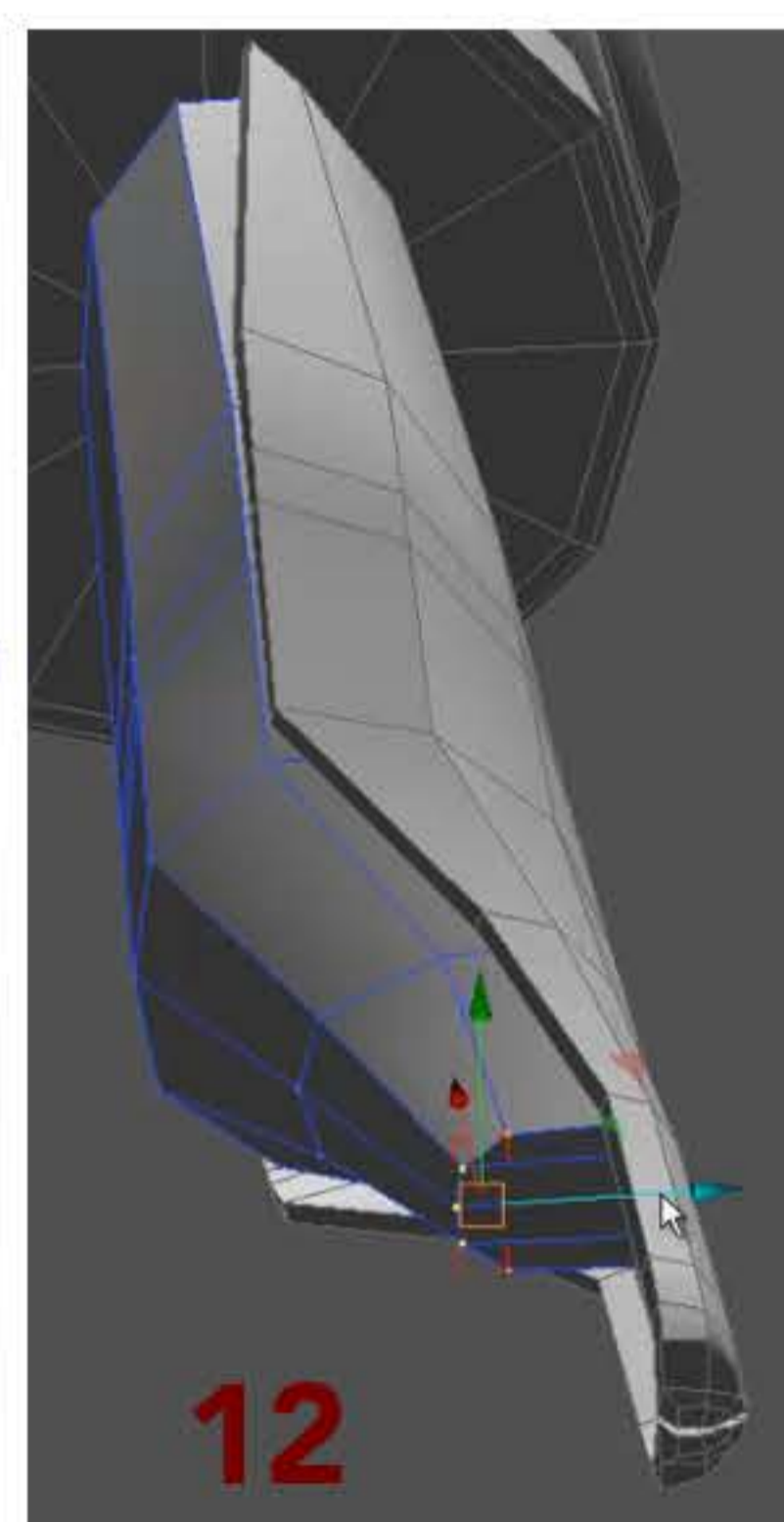
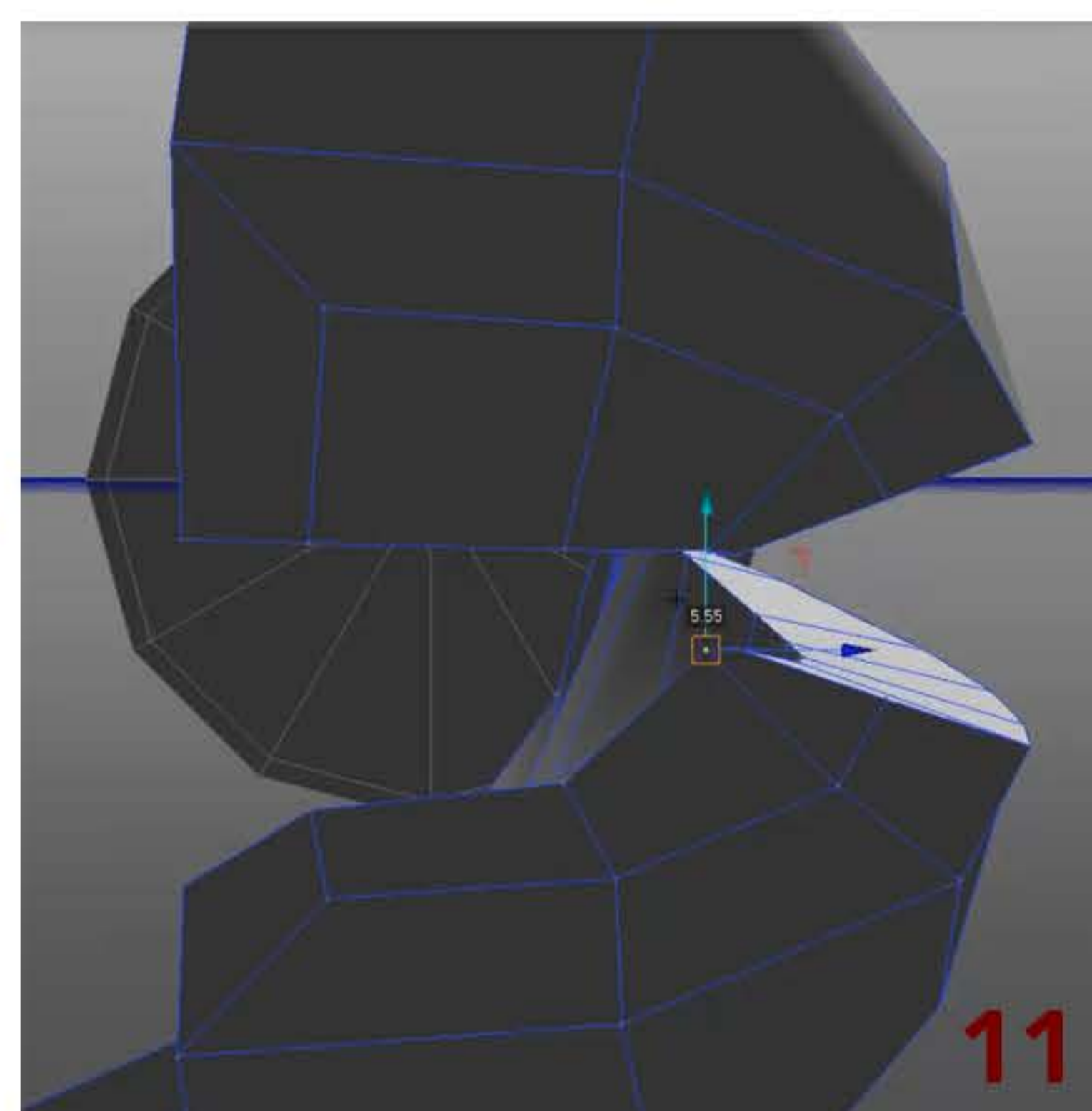
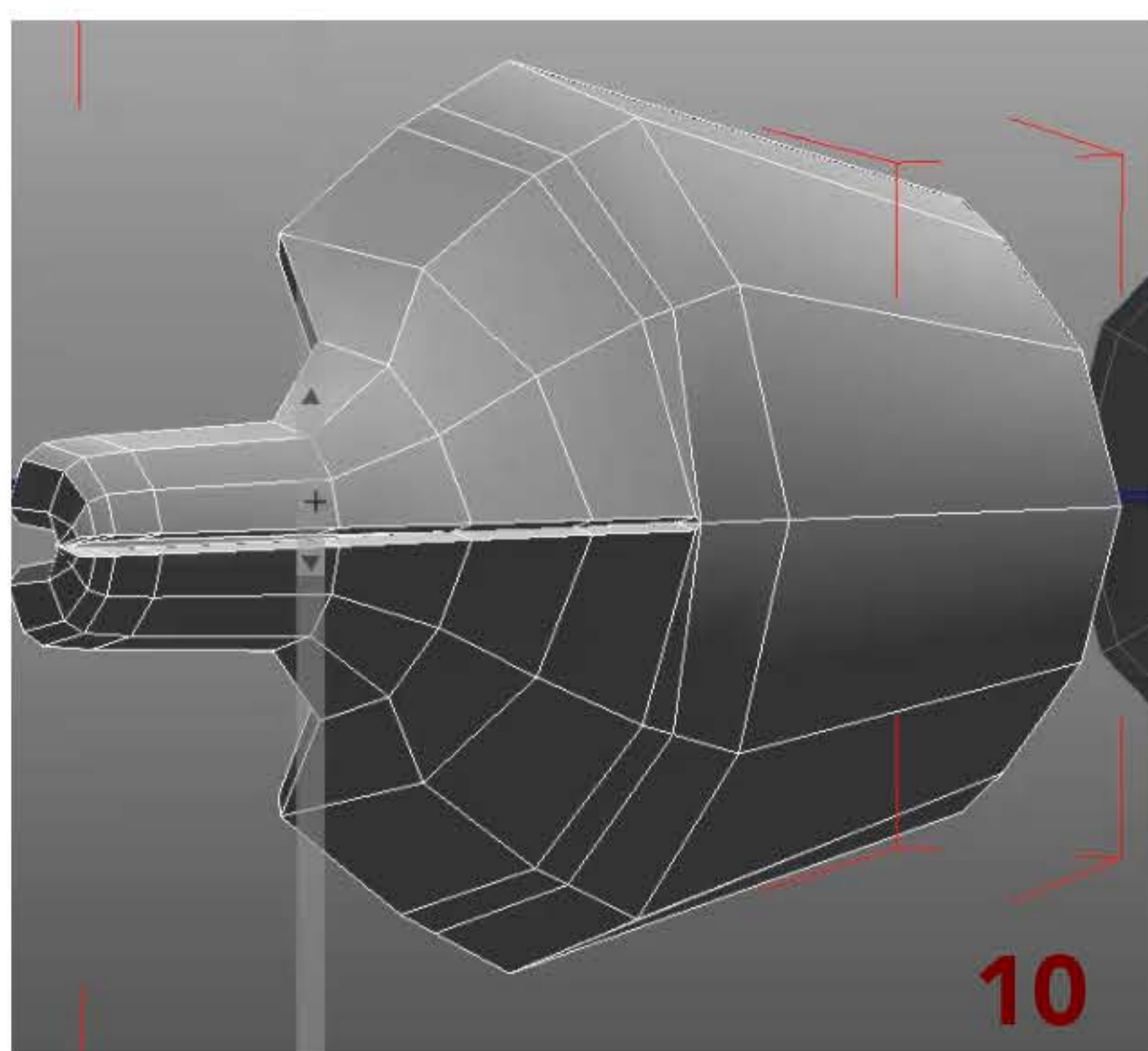
2. Now that the base of the cap is done, we will do the grip properly. Let's first start with two extrusions of two faces on the side of the cylinder we did for the grip (picture 4). We will add some edges in order to do the right form of the grip, then, do an inset, delete the faces and apply a bridge (picture 5). That way, the grip only need a few adjustments to perfect the shape. We will add edges for the subdivision mode at the end. But you can do it now if you prefer.



3. After that, we will finish the body. This is just a matter of making a cylinder, adding edges and refine the forms with the scale tool. Nothing complicated (picture 8). Now we can start the difficult part of the pen: the nib. We also start with a cylinder and delete half of it. Then, we add some edges to refine the form of the nib (picture 9). In order to have a better form, it's better to use different views. For the nib, I used the front and top view (picture 10). Now, we need to do the little slit in the middle of the nib. For that, we can do a bevel on the edge, and delete the additional faces we've just created (picture 9).



4. Let's add some thickness to the mesh (picture 12). On complex form, the thickness tool does not do exactly what we want. So we need some adjustments (picture 11). Now, let's start the other part of the nib (generally, the black part). We can select the inner faces of the nib and extract them to start that part. That way, the inner part will have the right form. Let's add thickness and refine the form of the mesh (picture 12). Now, let's add some edges, and use them to do extrusion like shown in picture 13. That part is now finished.



5. Now, in order to finish the modeling, we just need to add extra edges to all meshes we create, in order to have a nice OpenSubdiv. It's a little bit complicated to add those edges for the nib. If you have any trouble to do it, don't hesitate to watch the video! The model is now finished (picture 14).

