

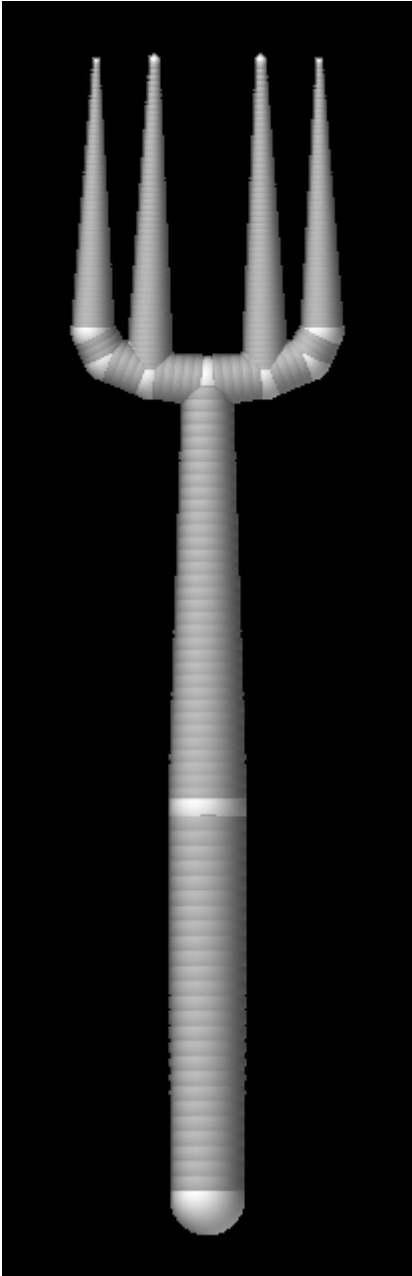
Hard ZSpheres Tutorial

By Ken Brilliant



ZSpheres are naturally the first choice when creating smooth, organic forms. With a simple adjustment, they can also be used to make mechanical, hard-edged objects.

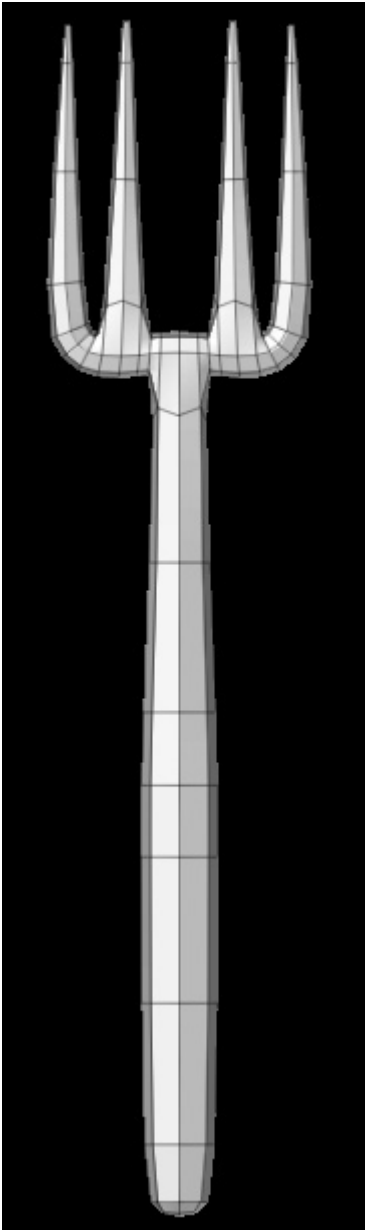
In this example, we will make a fork from ZSpheres and the adaptive skinning method.



Begin with making a simple ZSphere object in a general, pronged fork shape.

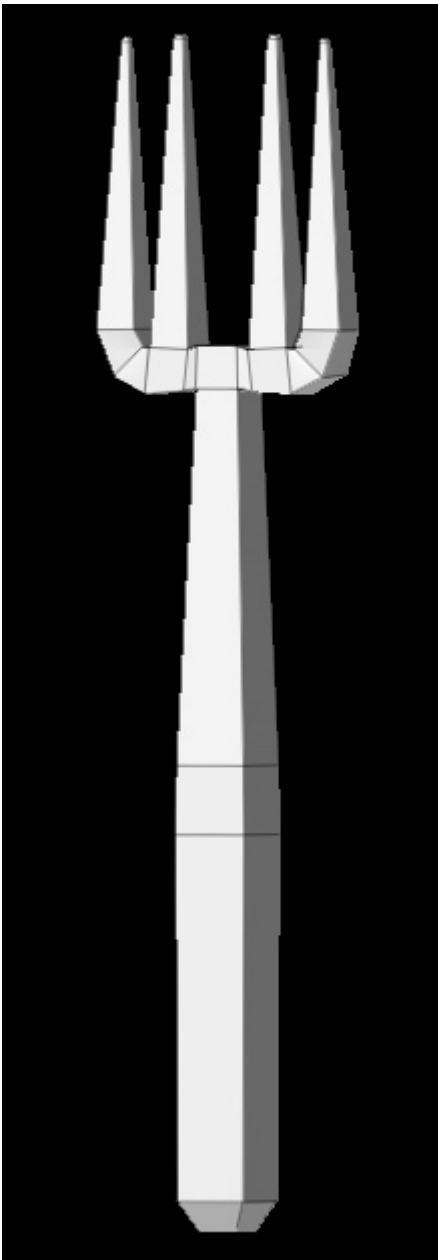


Normally when using the adaptive skinning method, we would set the density to 2 or above.

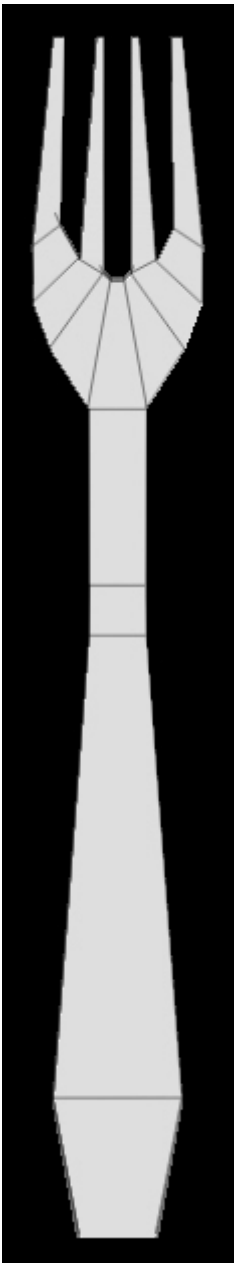


This would give us a roundly formed model.

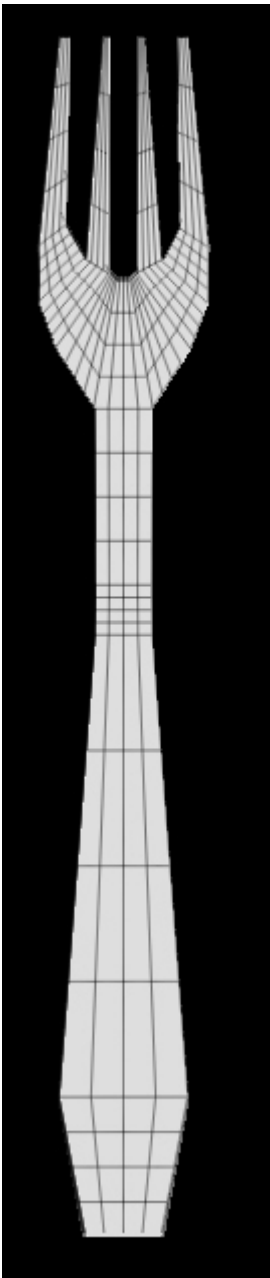
Not desirable for this fork.



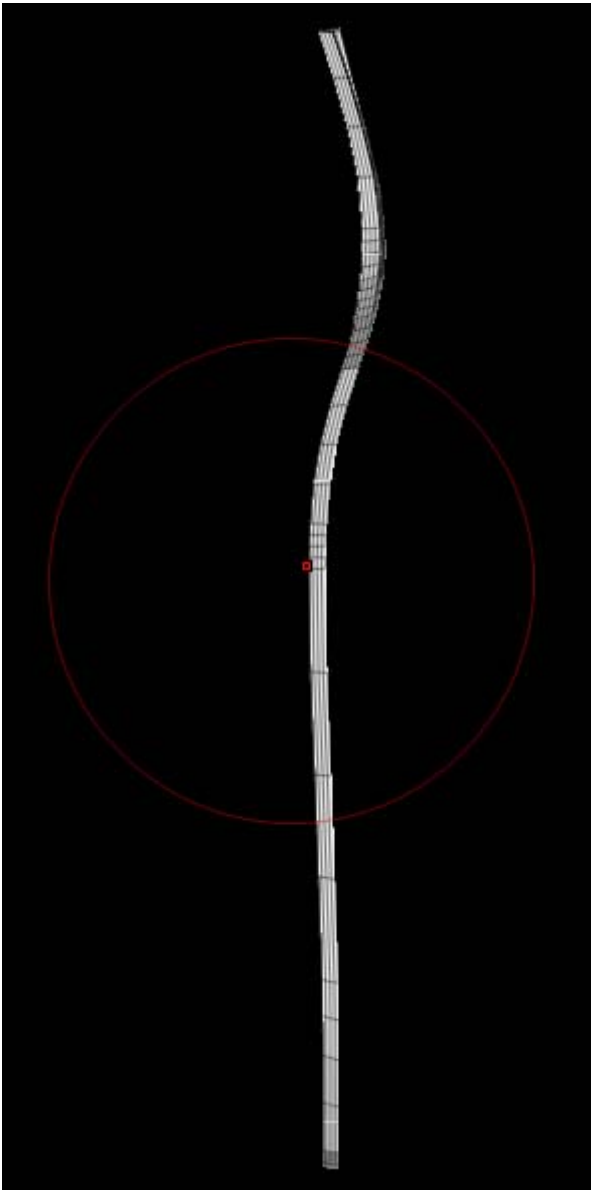
Turn the density down to 1, and the resulting skin is a four-sided mesh



This still doesn't look like a good fork, so some additional modeling is in order. Turn on X & Z symmetry and pull the model into a more fork-like appearance. Use the Move tool with a small diameter.



When you are happy with the shape, Divide the model to give you more geometry to work with. Use the Flatten slider on the negative and positive Z axis to make the mesh even on both sides if it becomes lumpy in the modeling.

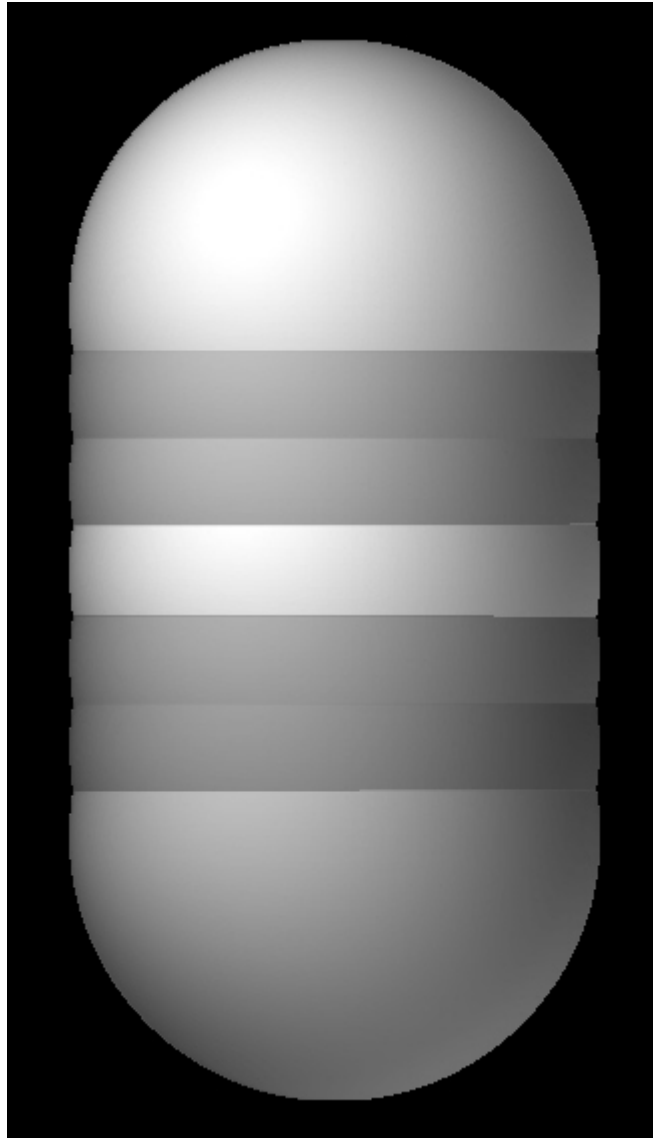


Another touch would be to give it some curves as seen in the side view. Use a large diameter brush and the Move tool to give some subtle shape.

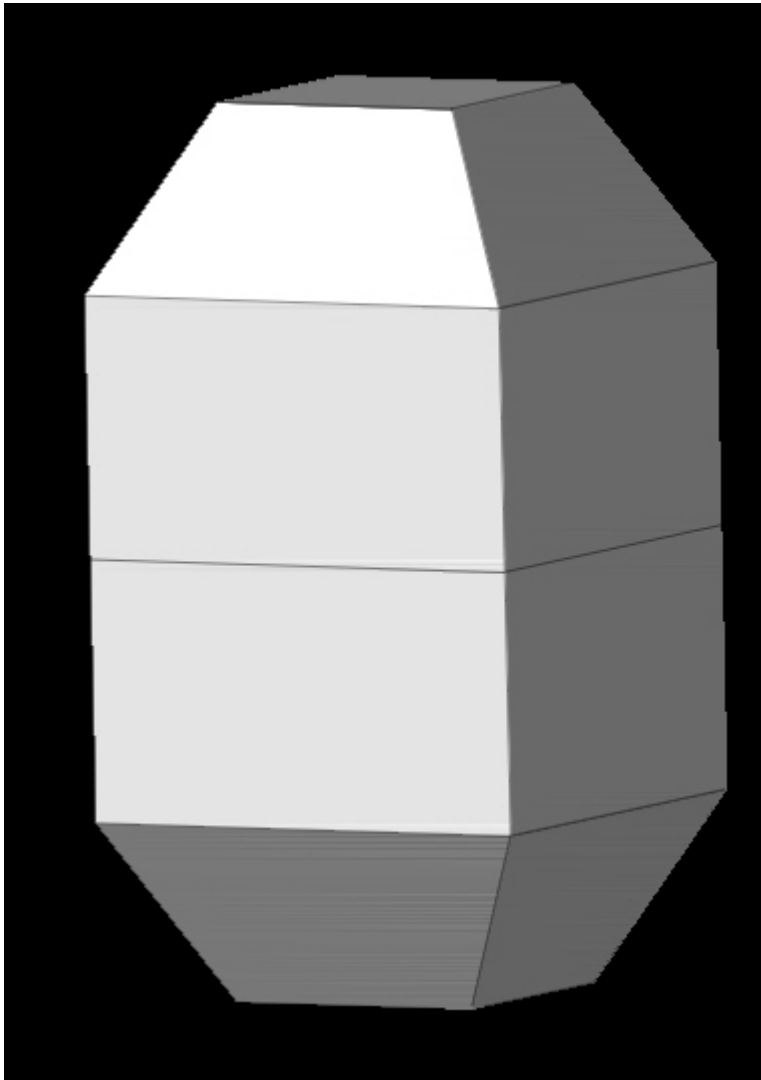


If the model still appears faceted when rendered, adjust the smoothing. Do not turn it all the way to 1. A small value of .01 will help. You can also divide the model, or portions of it, to smooth it further.

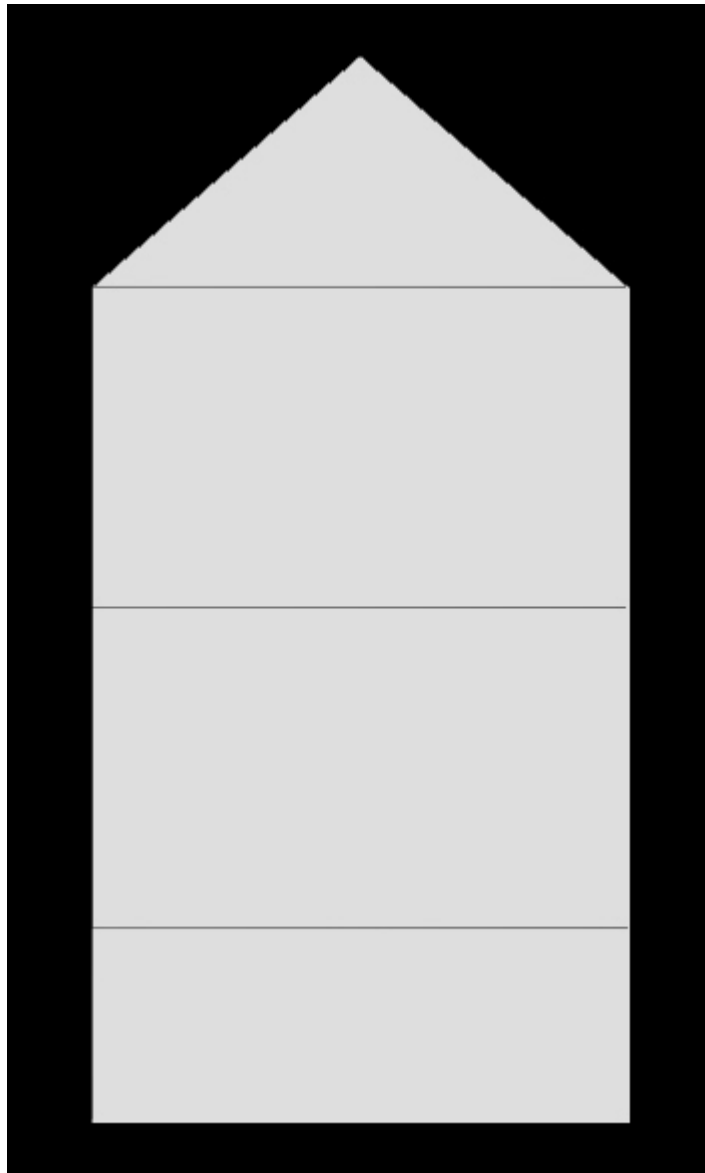
Now you are ready to eat!



A simple ZSphere model can also be used to make forms such as a house.



Turn off Cskin, and set the density to 1 to make your adaptive skin.



Flatten (using the modifiers) the bottom (Y axis). Turn on X & Z symmetry and Move the top of the form to a point.

Use Flatten if the sides become less than straight.



This simple model can be textured in any way to form large buildings or small hard-edged parts.