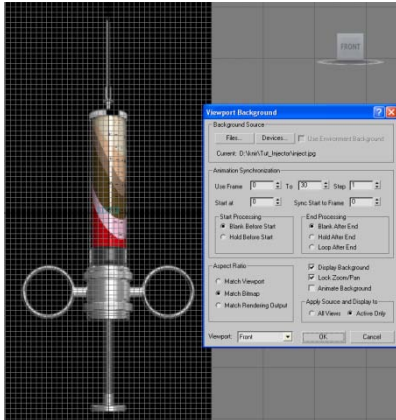


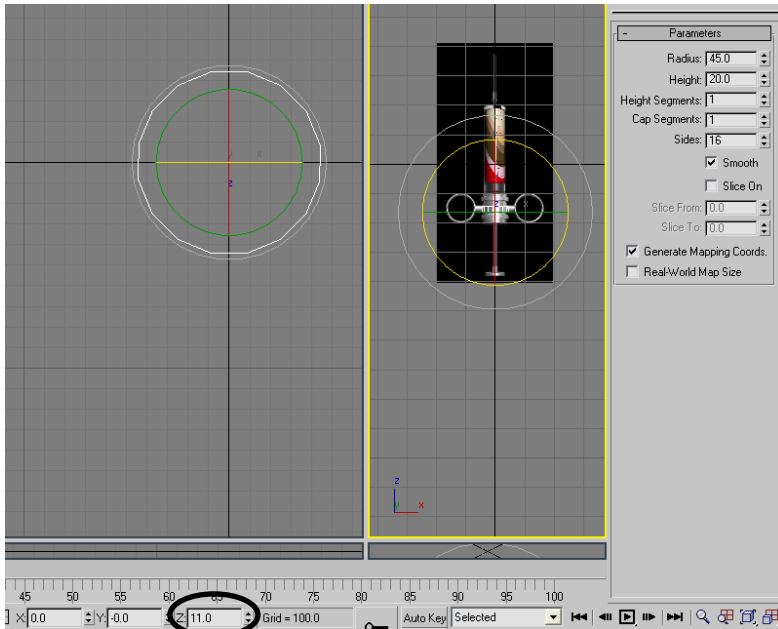
Karen Nir - Creating a syringe in 3DS Max.

This tutorial will go over more advanced modeling tools.
A basic knowledge of the 3ds max interface is recommended.

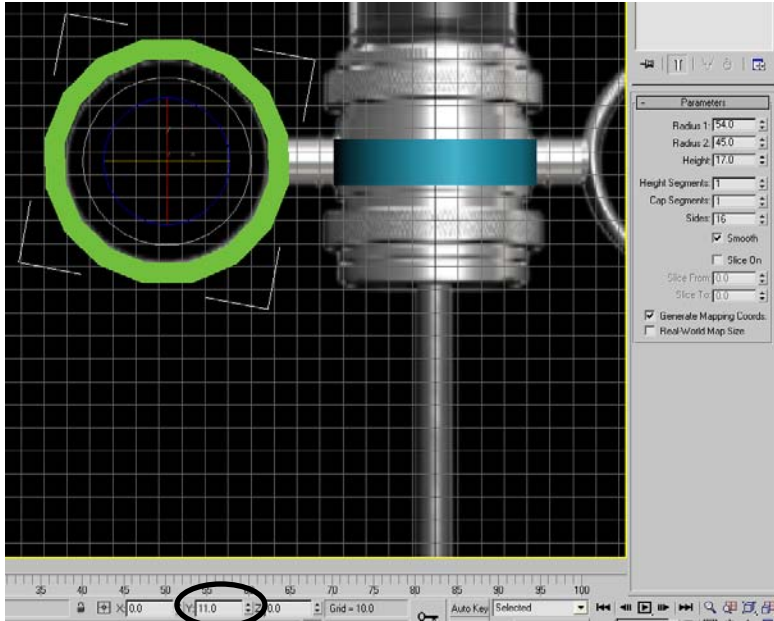




We need to bring in our reference image – Alt B to bring up the Viewport Background. Make sure Match Bitmap AND Lock Zoom/Pan are on.



Create a cylinder with the following values:
 Radius- 45 Height- 20 Height Segments- 1 Sides- 16
 In the Top window rotate along the Z axis 11

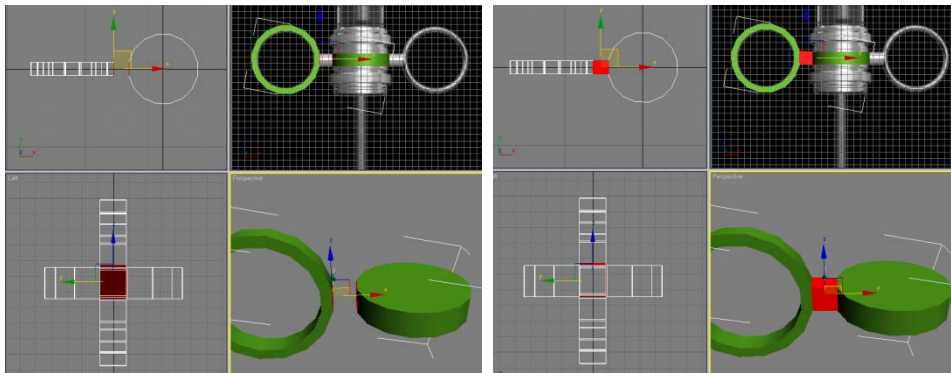


Create a tube with the following values:

Radius1- 54 Radius2- 45 Height - 17 Height Segments- 1 Sides- 16

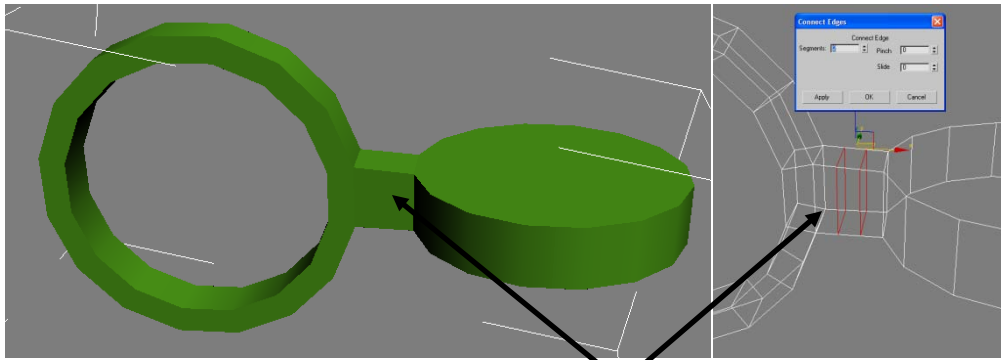
In the Front window rotate along the Y axis 11

Convert both objects to editable Polys



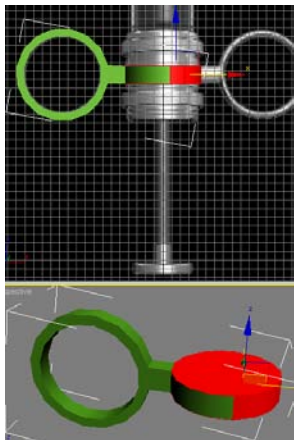
Select the editable poly tube and attach to the editable cylinder poly

Select the polygons across from each other and use the bridge tool.

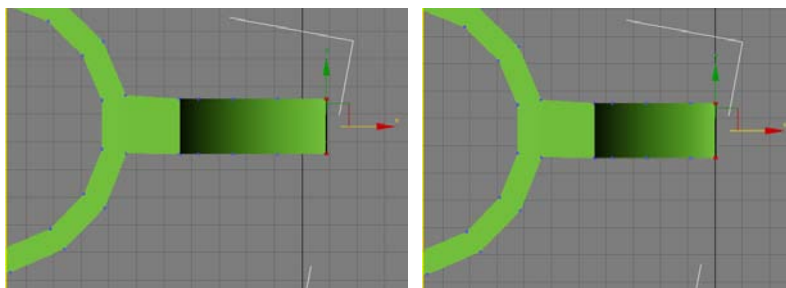


Use the Connect tool to create 2 segments.

Since this is a symmetrical object we can use the symmetry Modifier to create the other side. But first we need to delete the faces which cross the origin.

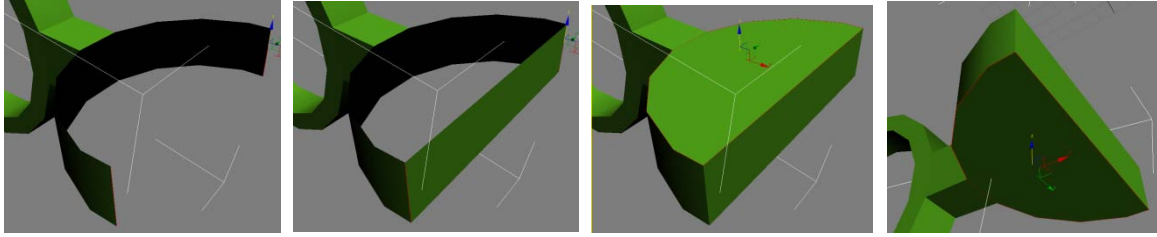


Delete the faces shown above.

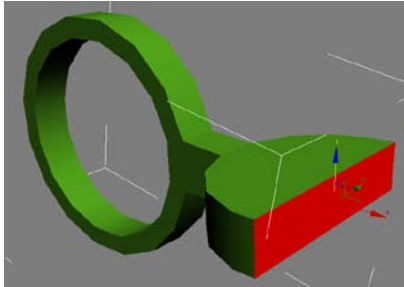


Select vertices and snap to grid.

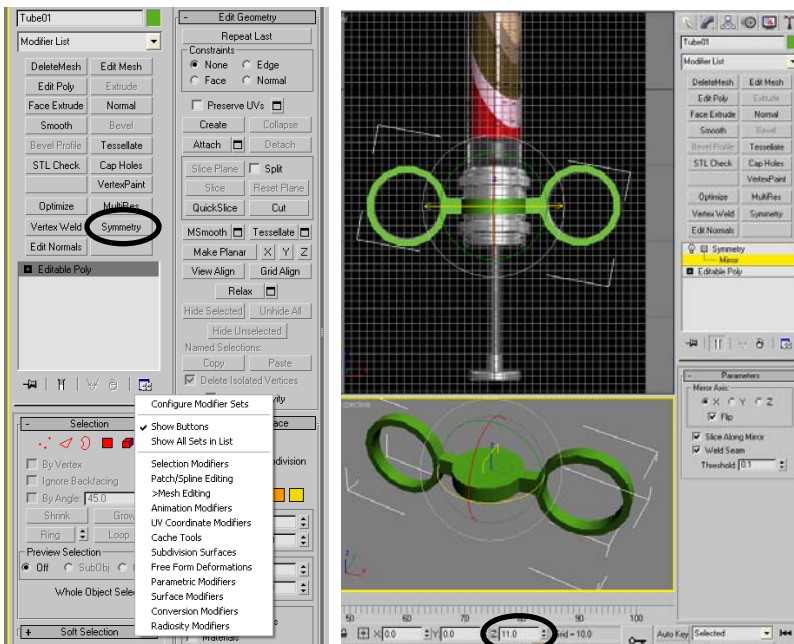
I did this in the front window and temporarily turned off the background.



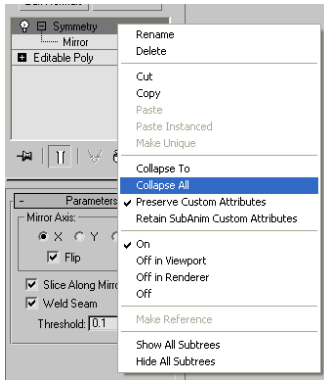
Select the edges and Bridge.
 Select the Borders and Cap.



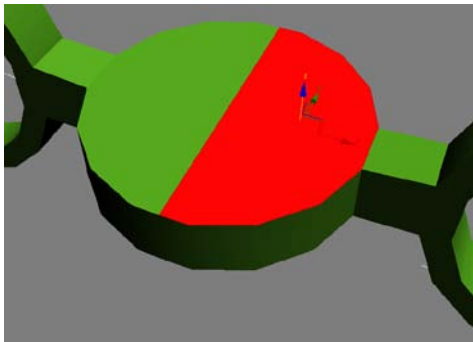
Since we will be using the symmetry Modifier to create the other side we need to delete the inside Polygon.



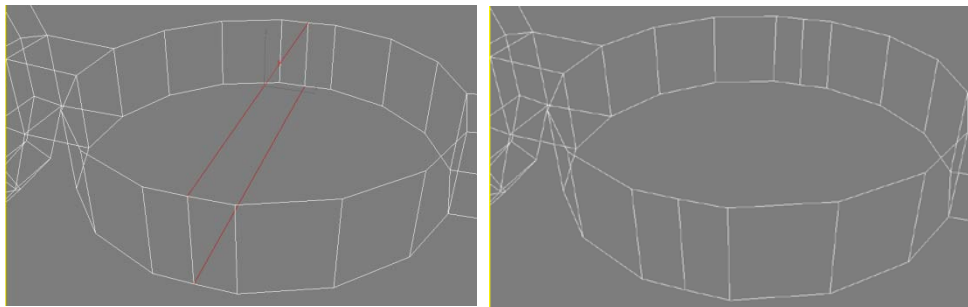
Use the Symmetry modifier to create the other side.
 Mirror along the X Axis Check the Flip box
 In the Front viewport, Rotate along the Z axis 11



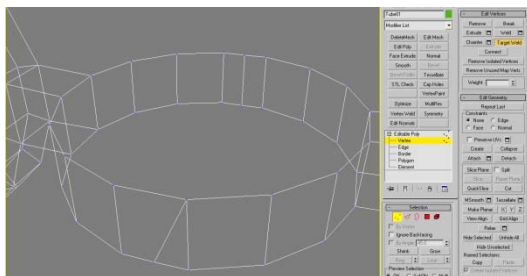
Right click on the Symmetry modifier and Collapse All.



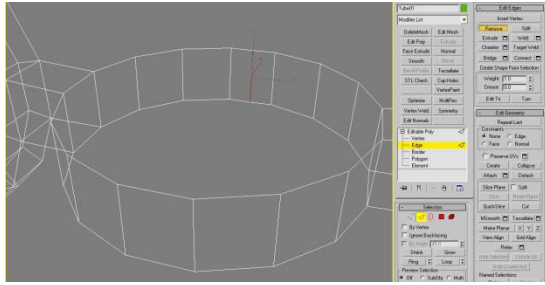
Now before we can extrude Polygons to create the body of our syringe, we need to weld the vertices together.



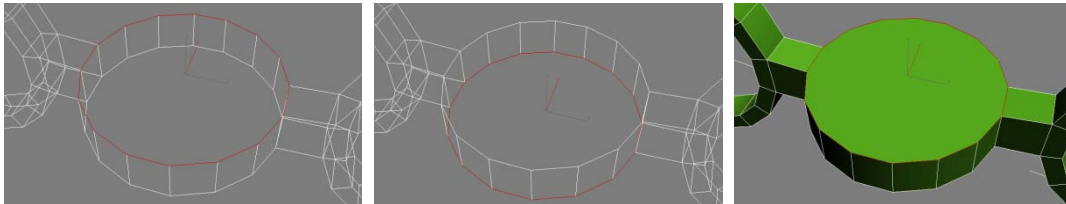
Delete Edges as shown above



Use Target Weld to weld the vertices (Left Click and drag the center vertex on top of the one just to the right of it) OR

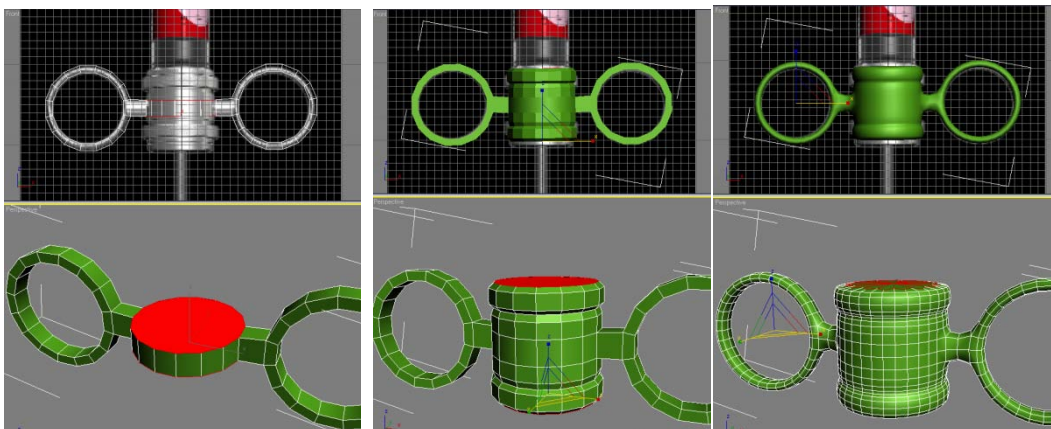


Simply select the isolated edges and Remove.



Select the Borders and Cap.

Now for some modeling fun...



Select the top and bottom Polygons and using the Extrude tool, begin to create the middle shape.

Add a TurboSmooth Modifier.

Great! Now you can finish building the syringe on your own.