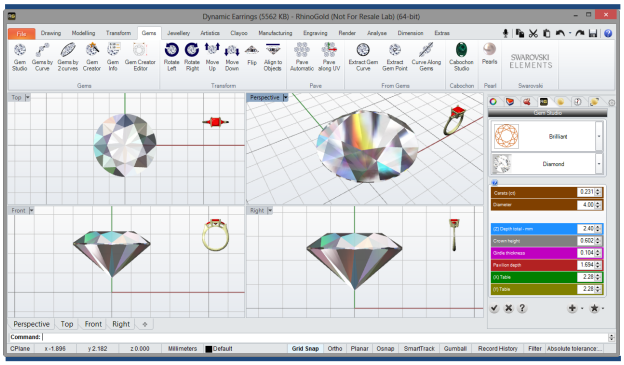
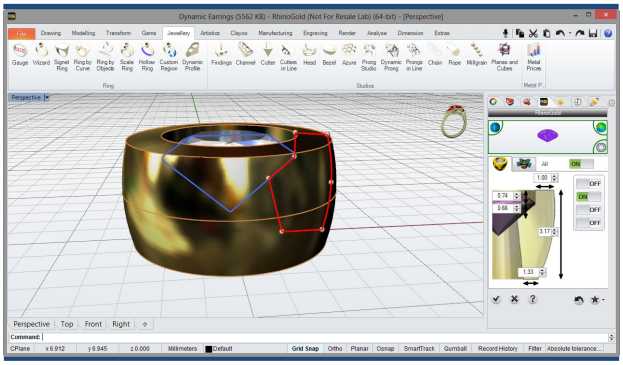
Teardrop Earrings

In this tutorial we will try out some of the most useful commands in RhinoGold. Powerful tools such as Sweep 2 Rail, Bezel Studio, Pave Automatic and Variable Chanfer.



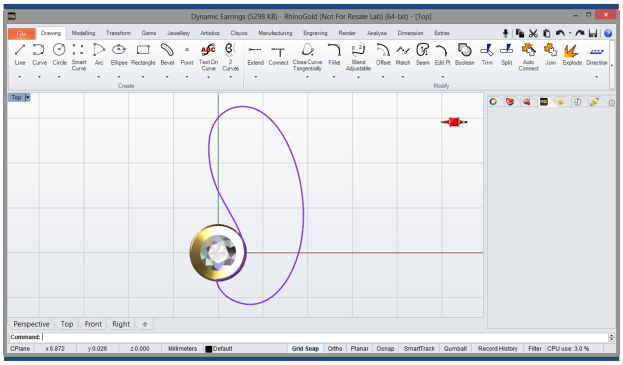
1 Gem Studio

Under the Gems tab, with the Gem Studio tool, we can create a gem in the top view, in this case with a 4mm diameter gem.



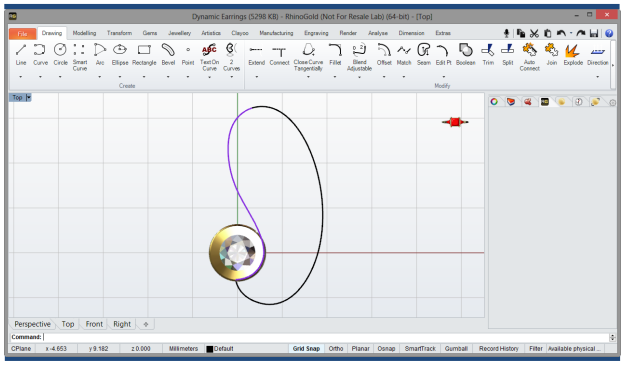
2 Bezel Studio

We can now create a bezel to support the gem. Use the Bezel Studio tool under the Jewellery tab and define the parameters according to the desired results.



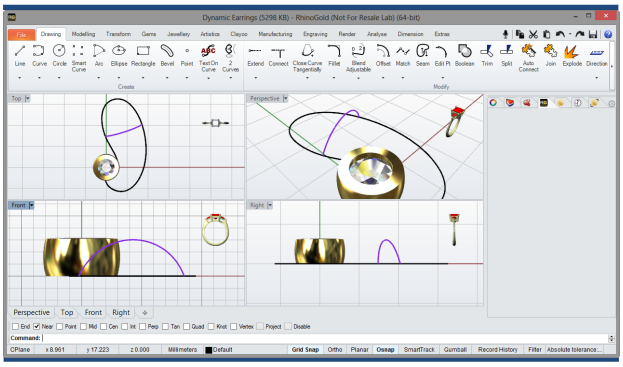
3 Smart Curve

Under the Drawing tab, with the Smart Curve tool define a curve in the top view, as shown in the image above. If needed we can use the Edit Points tool to adjust the curve.



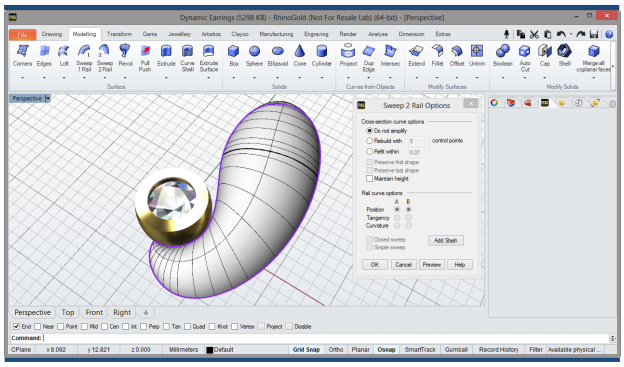
4 Split

Still under the Drawing tab with the Split tool divide the curve, as shown above. It's important to use the Point option in the command line to define the two points to Split the curve.



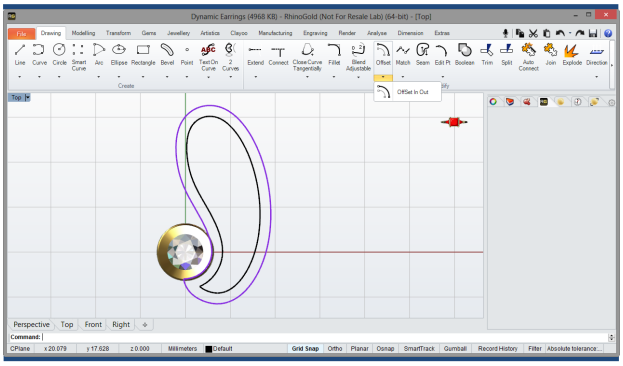
5 Arc: Star, End, Direction at Start

In the Drawing tab, with the Arc: Star, End, Direction at Start tool create a profile. It's important to use the Near option in the Osnap.



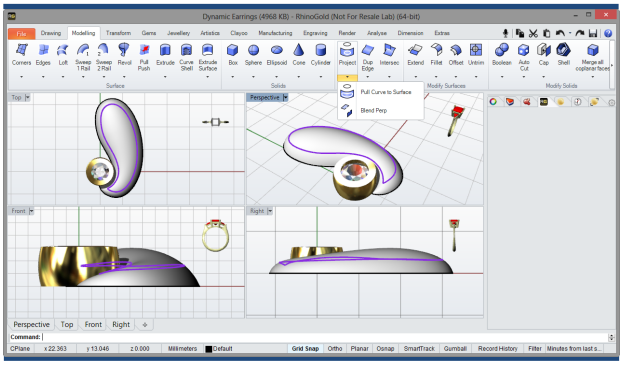
6 Sweep 2 Rail

Under the Modeling Tab with the Sweep 2 Rail tool create the surface from the curves. It's important to use the Point option in the command line to define the Start and the End point.



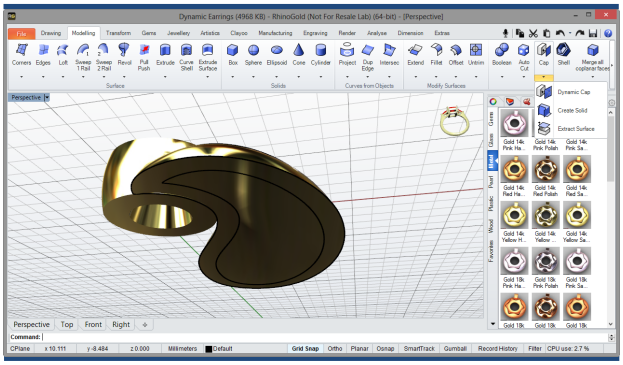
7 Offset

Back to the Drawing tab with the Offset tool in the top view create the inside curve, as shown in the image above. In this case with a 1.2mm distance from the original curve.



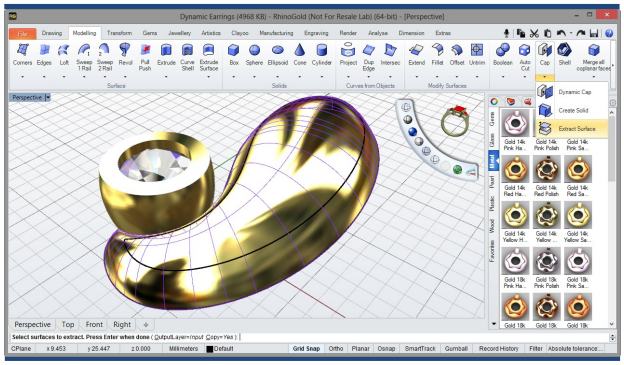
8 Project

Now, under the Modeling tab with the Project tool in the top view, place the inside curve into the surface created before.



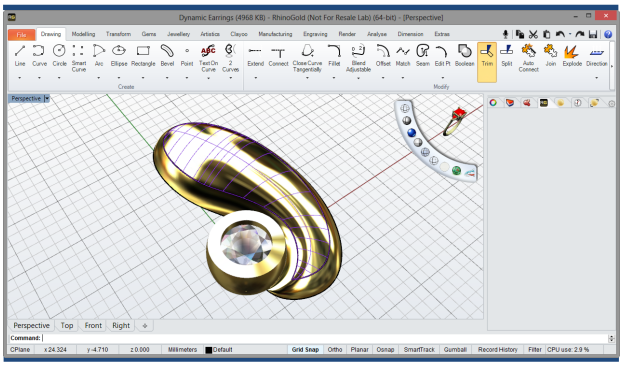
9 Cap

Then, under the Modeling tab with the Cap tool close the surface in order to make a closed solid.



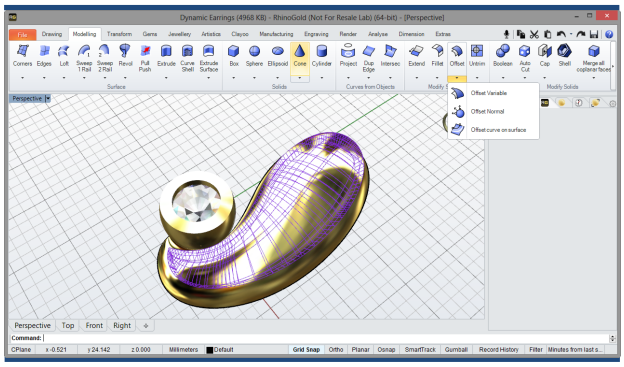
10 Extract Surface

Now we can copy the top surface, to do this, use the Extract Surface tool, under the Modelling tab. It's important to use the Copy option in the command line.



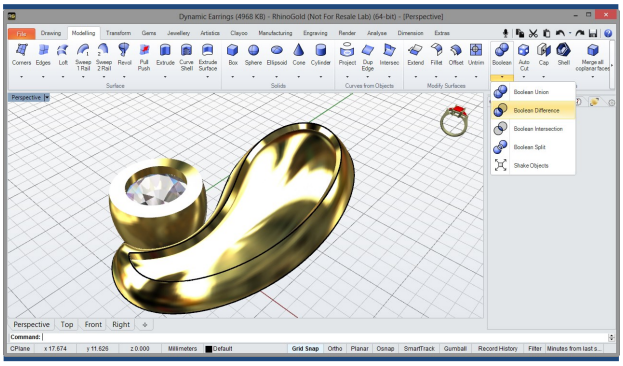
11 Trim

Back to the Drawing tab with the Trim tool cut the bottom part of the surface created previously using the projected curve.



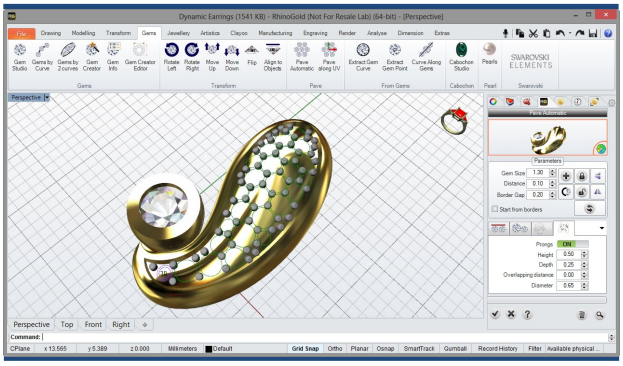
12 Offset

Now, under the Modeling Tab with the Offset tool define the thickness of the trimmed surface, as seen above. In this case with 0.5mm on both sides.



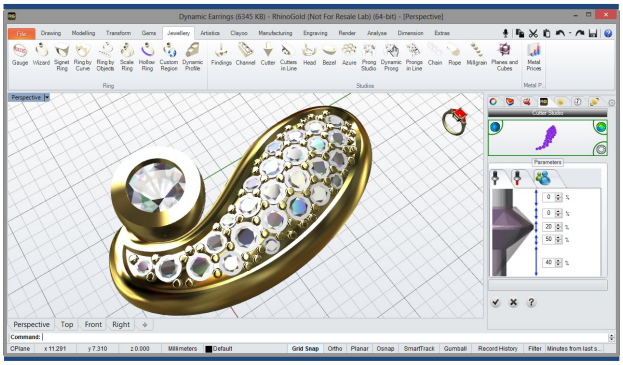
13 Boolean Difference

With the Boolean Difference tool under the Modeling tab remove the solid created before from the earring in order to create the gems section.



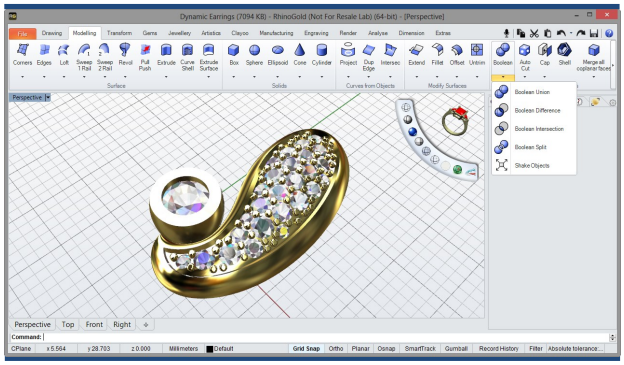
14 Pave Automatic

Under the Gems tab with the Pave Dynamic tool apply the gems on the section created before. We should also create the prongs to support the gems inside this tool.



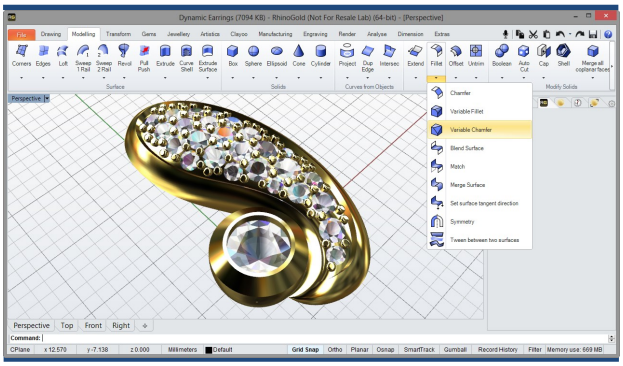
15 Cutter Studio

We can now create the cutters to apply onto the gems, to do this use the Cutter Studio tool under the Jewelry tab.



16 Boolean Operations

Now, we can remove the cutters from the earring, for this, with the Boolean Difference tool under the Modeling tab. Then, with the Boolean Union tool unite the prongs to the earrings in order to create a single object.



17 Variable Chamfer

The last step, under the Modeling Tab with the Variable Chamfer tool define a chamfer for the bezel top surface, as shown in the image above. In this case the chamfer radius is 1mm.