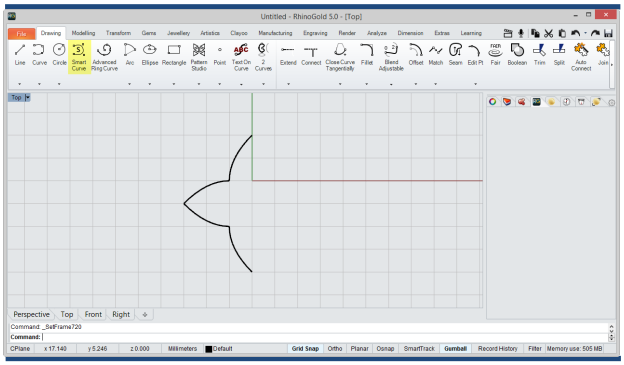
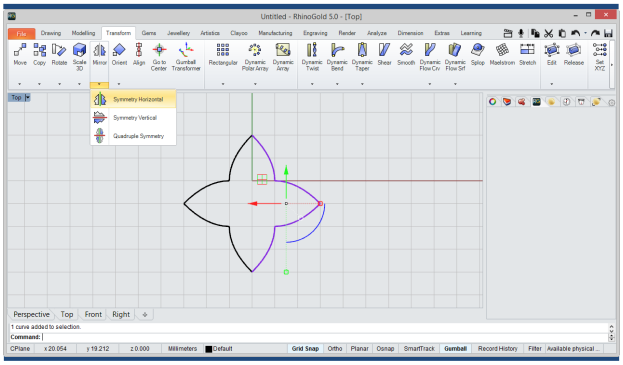
# Flower Knot Ring

In this tutorial we will use RhinoGold tools such as Smart Curve, Advanced Ring Curve, Offset, Extract Surface, Gems by 2 curves.



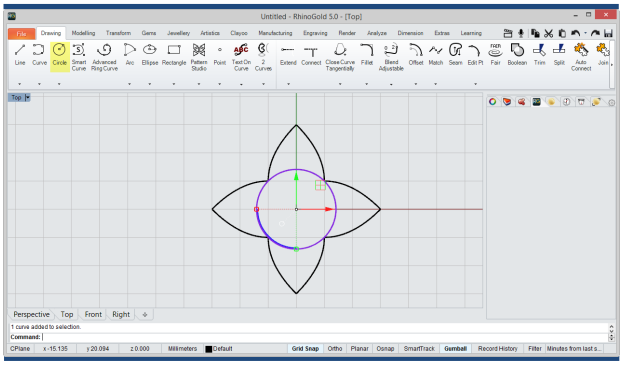
## 1 Smart Curve

First, we'll go to the Drawing tab and select the Smart curve tool and define a similar curve to the image.



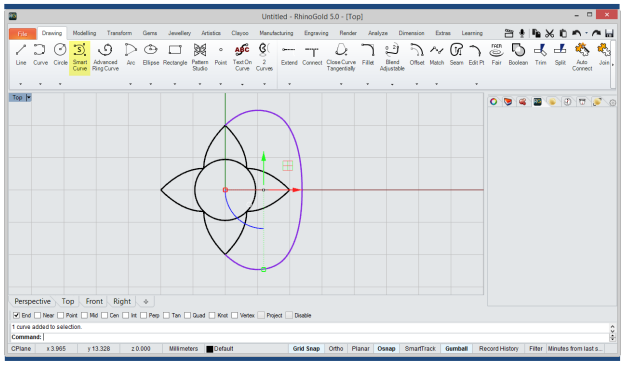
## 2 Symmetry Horizontal/Join

Now, we'll apply a symmetry to the curve with the Symmetry Horizontal tool and will unite the two curves with the Join tool.



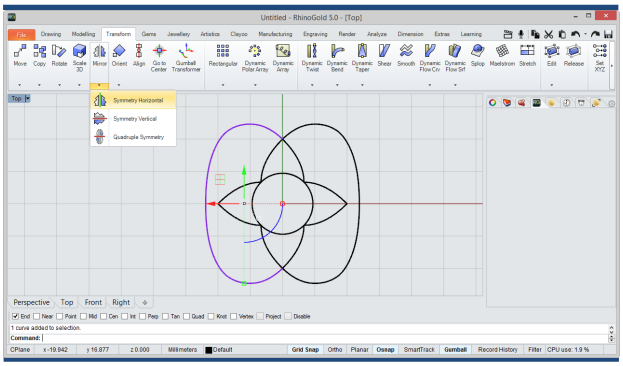
## 3 Circle

Then, we'll trace a similar inside curve to the picture with the Circle tool.



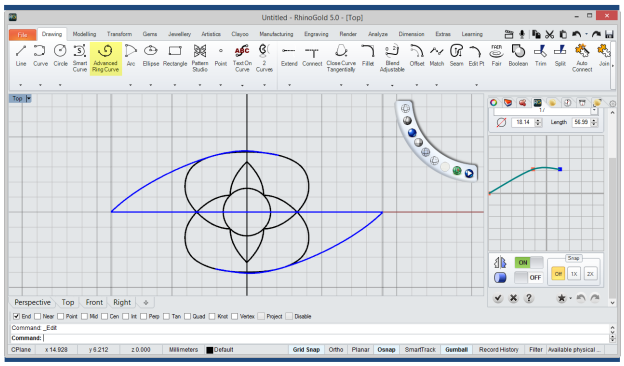
## 4 Smart Curve

Next, we'll continue with the Smart Curve tool and will trace a similar curve to the picture.



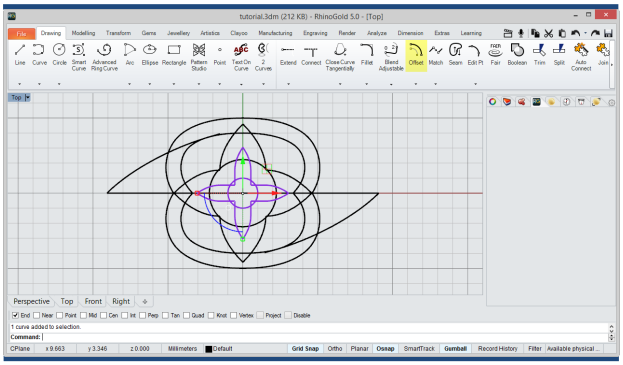
## 5 Symmetry Horizontal

Now, we'll repeat the operation applying a Symmetry and unite the curves again, with the Join tool.



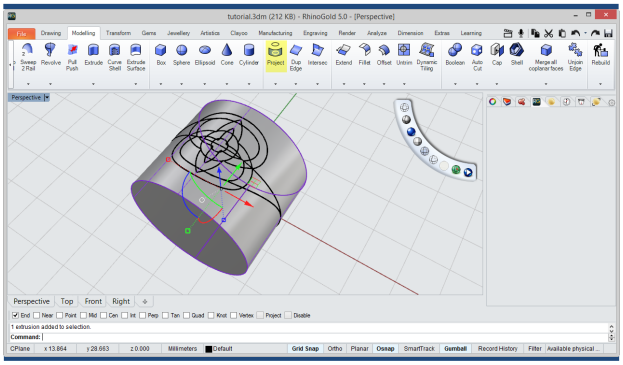
## 6 Advanced Ring curve

Then, we'll select the Advanced Ring Curve tool in the Drawing tab and define a curve, respecting the parameters of the tool that shown in the image, with the option of generating cylinder activated.



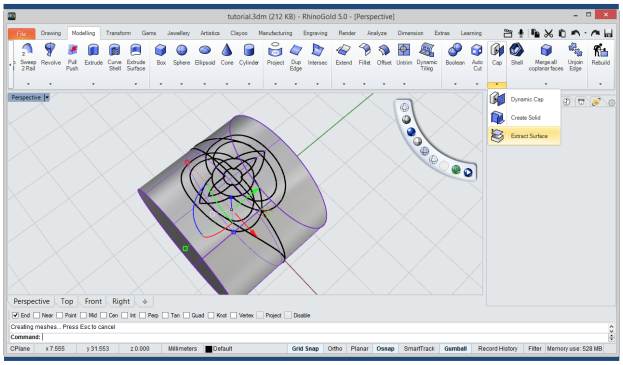
## 7 Offset

Then, we'll select the Offset tool, in the Drawing tab and apply a 1mm offset on all curves, less advanced curve.



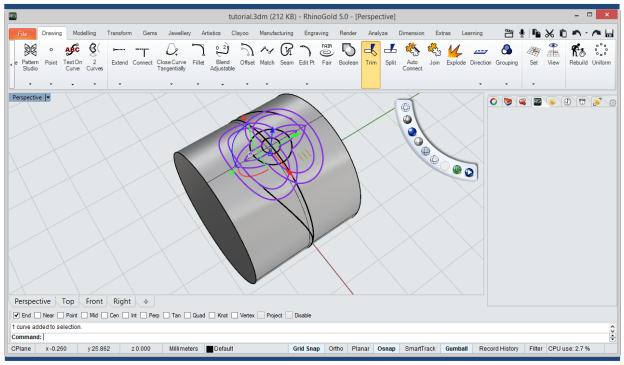
## 8 Project

Now, we'll apply the Project tool between the offset curves and cylinder.



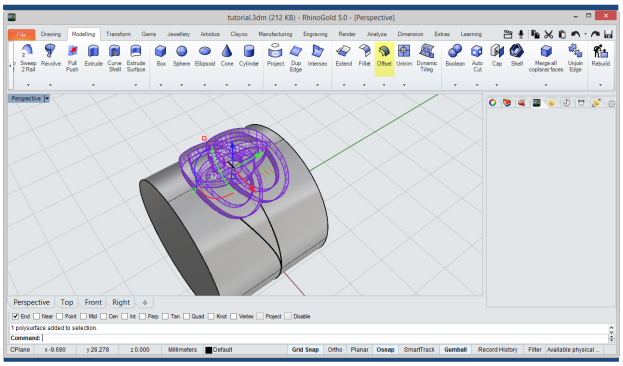
## 9 Extract Surface

Then, we'll go to the Modelling tab and select the Extract surface tool, in the Cap submenu and extract the cylinder surface.



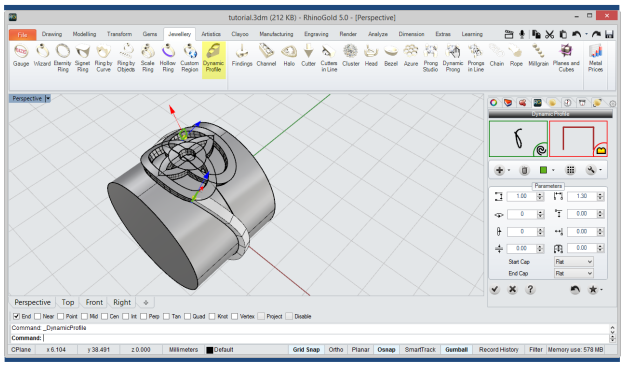
## 10 Trim

Now, we'll apply the Trim tool between the offset curves and the extracted surface.



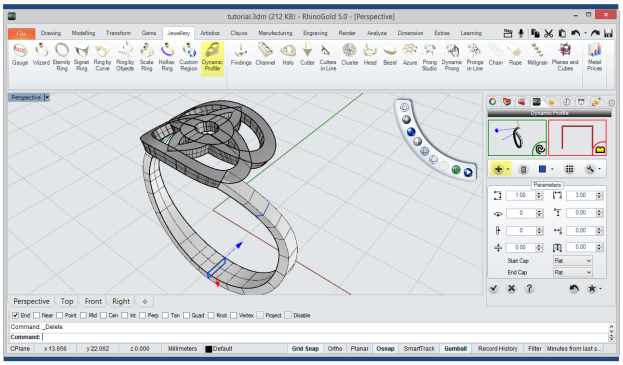
## 11 Offset

Then, we'll select the surfaces resulting from cuts and apply the Offset tool, in the Modeling tab, defining a 1mm height.



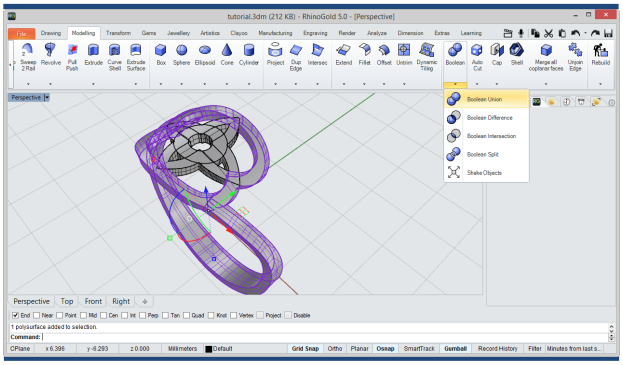
## 12 Dynamic Profile

In this step, select the Dynamic Profile tool, Jewellery tab and define a 1mm height by 1mm wide. Select a square profile and activate the orient by Surface option in the Settings tab of the tool.



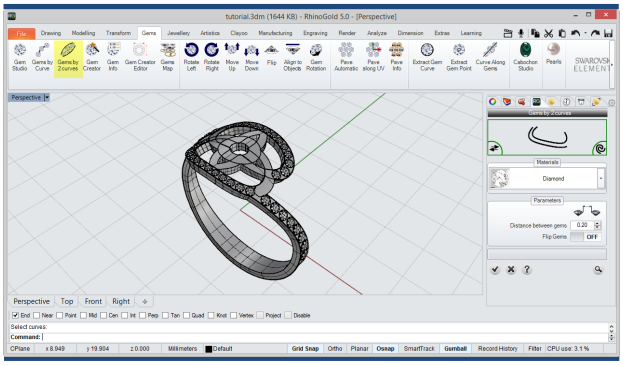
## 13 Add Profile

Next, in the same tool, we'll add a new profile in the bottom center and define a width of 3mm.



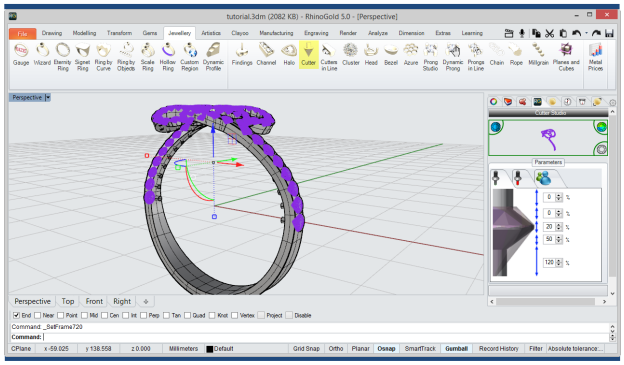
## 14 Boolean Union

Now, apply a Boolean Union between the ring and the offset surface.



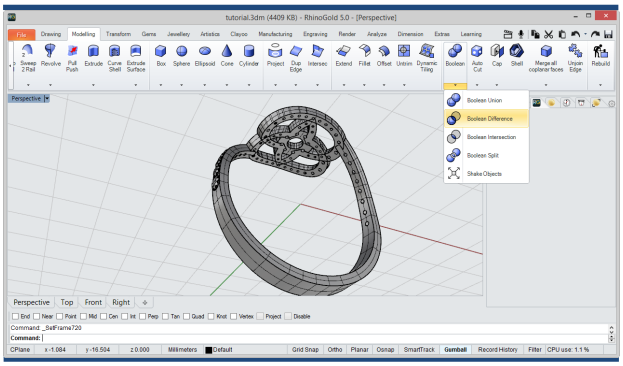
## 15 Gems by 2 curves

Then, select the Gems 2 curves tool, in the Gems tab and apply gems along the surface of the ring.



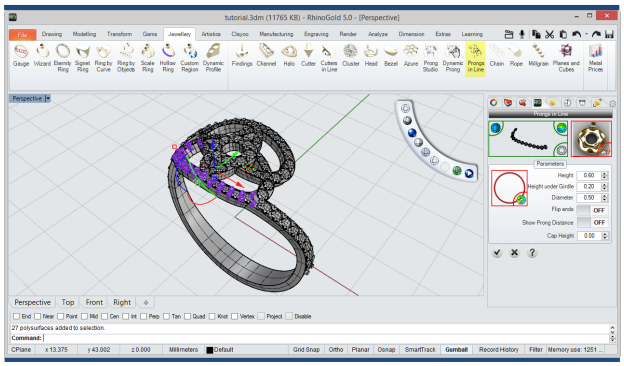
## 16 Cutters

In this step, define the cutters to the gems, always checking that the cutters exceed the surface.



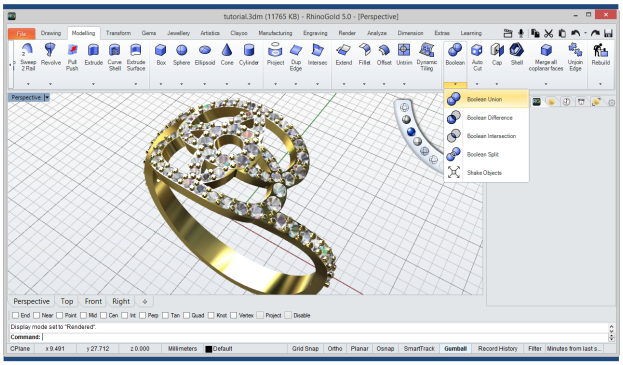
## 17 Boolean Difference

Now, we'll apply a Boolean Difference to the Cutters to subtract from the solid surface.



## 18 Prongs in Line

Next, define the prongs to the gems with Prongs in Line tool, in the Jewellery tab.



## 19 Boolean Union

Finally join all solids with a Boolean Union.