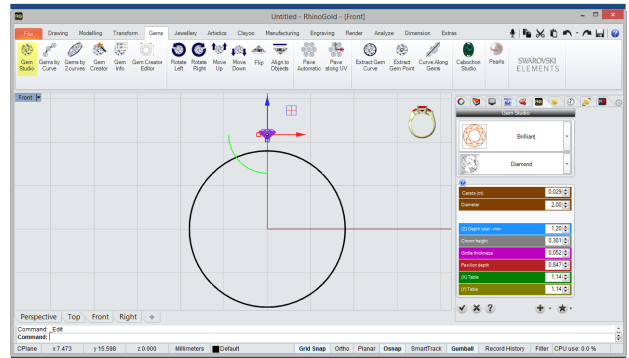


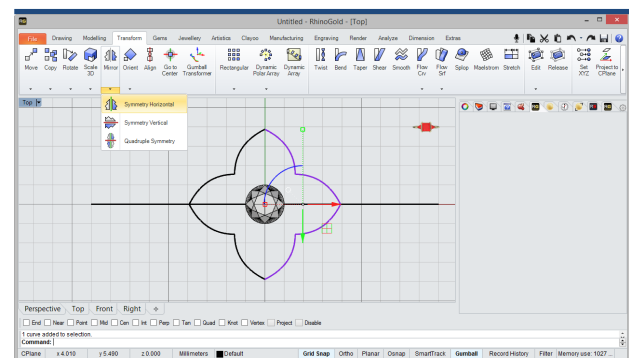


In this tutorial we will use RhinoGold tools such as Gems by Curve, Symmetry Quadruple, Bend, Dynamic Prong, Extract Surface and Dynamic Polar Array.

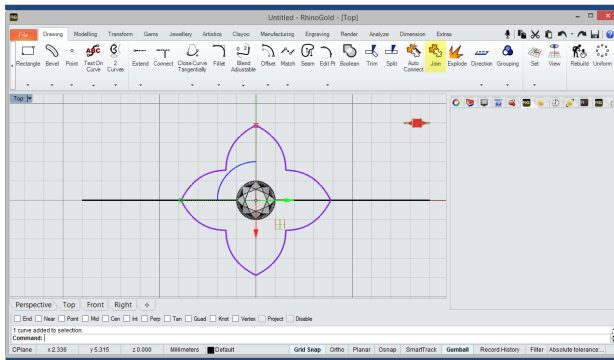
In this tutorial we will use RhinoGold tools such as Gems by Curve, Symmetry Quadruple, Bend, Dynamic Prong, Extract Surface and Dynamic Polar Array.



Now, we'll define a 2mm gem of Brilliant profile with the Gem Studio tool, in the Gem tab.

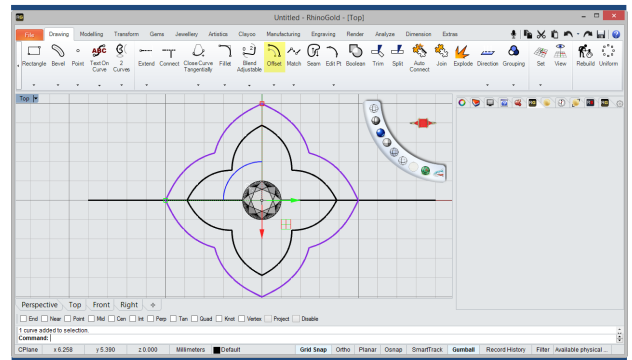


Then, we'll make a copy of the curve traced in the previous step, with the Symmetry tool in the Mirror menu, in the Modelling tab.



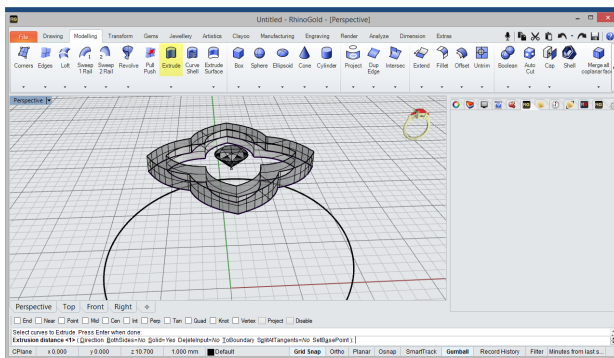
## 5 Join

Now, in the Drawing tab, we'll select the Join tool and apply it between the two curves created in the previous step, obtaining a single curve.



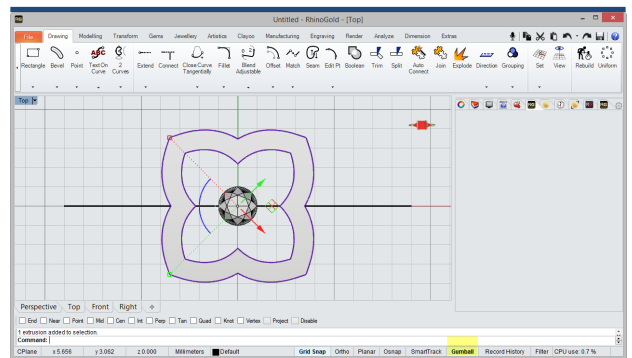
## 6 Offset

Then, we'll select the Offset tool in the Drawing tab, and define a curve on the outside of 1mm distance from the original.



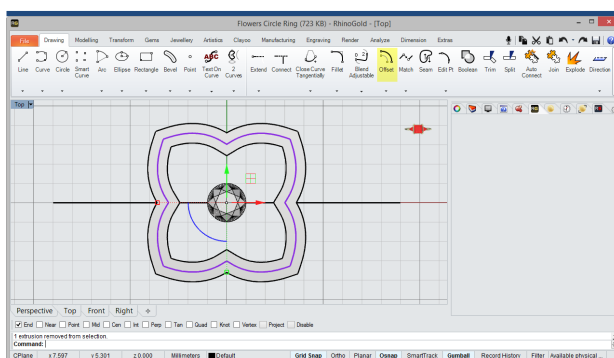
## 7 Extrude

Then, we'll select the Extrude tool in the Modelling tab and apply an extrusion of 1mm, keep the "BothSides" option Off and "Solid" activated in the command line.



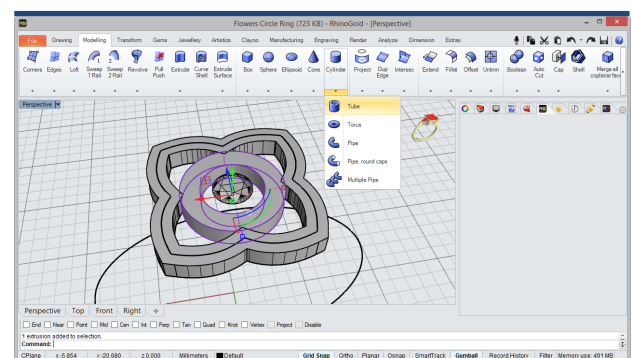
## 8 Gumball

Now, we'll rotate 90° the extruded solid and curves, with the Gumball command.



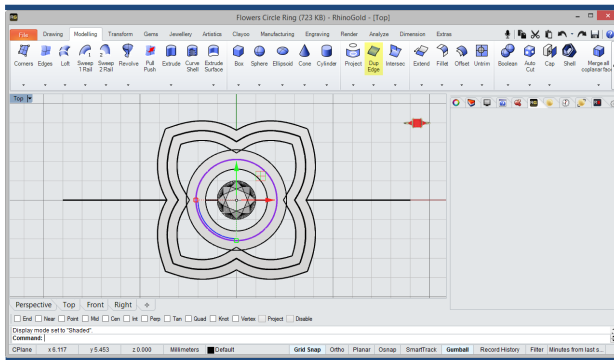
## 9 Offset

Next, we define a middle curve of 0.5mm between the created curves, with the Offset tool.



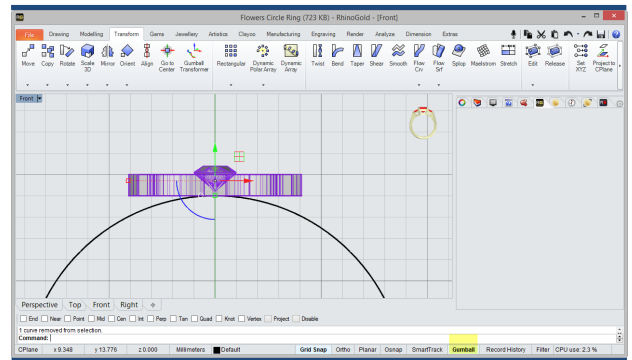
## 10 Tube

Now, we'll go to the Modelling tab and select the Tube tool, define a solid 1mm in width and height, as shown in the picture.



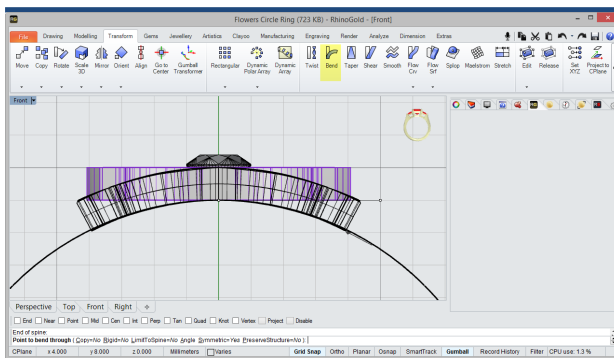
## 11 Duplicate Edge

Then, we'll select the Duplicate Edge tool in the Modelling tab and define a curve, positioning it in the center of the surface tube, as shown in the picture.



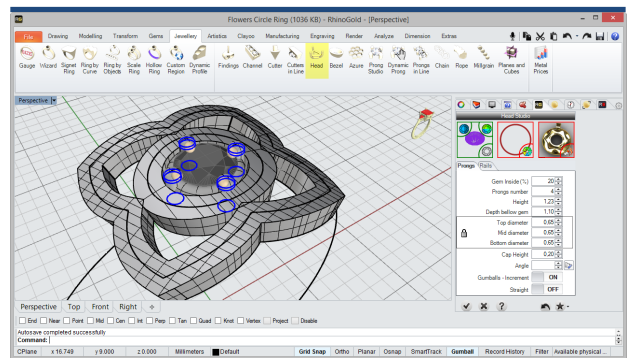
## 12 Gumball

In this step, we'll position the objects to the top of the main circle, with the Gumball command.



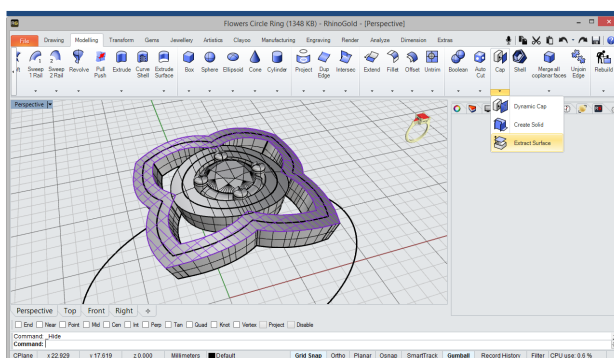
## 13 Bend

Then, we'll go to the Transform tab and select the Bend tool and apply it to the extruded solid, we will adjust it to the circle curvature. Activate the "Symmetric" option on the command line.



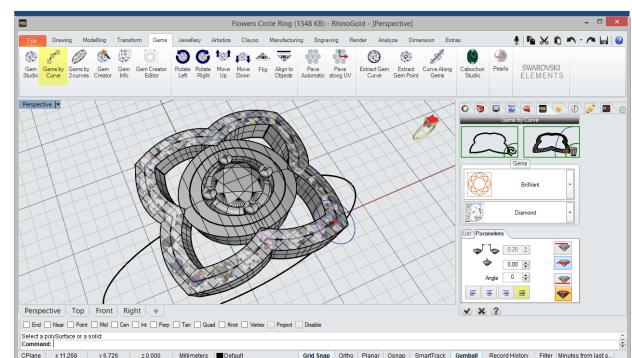
## 14 Head

Now, in the Jewellery tab, we'll select the Head tool and apply it to the gem. We'll respect the parameters shown in the image.



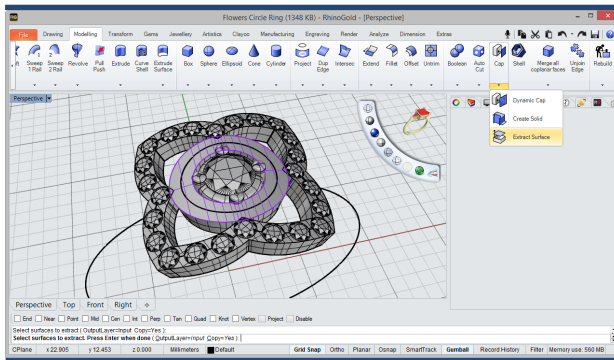
## 15 Extract Surface

Then, on the Modelling tab, we'll select the Extract tool surface, within the Cap submenu and apply it to the largest solid.



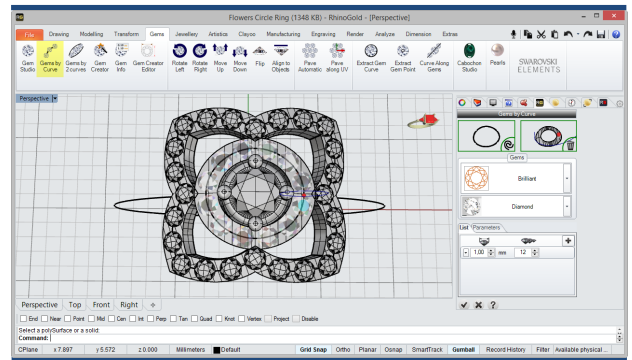
## 16 Gems by Curve

In this step, we'll select the Gems by Curve tool in the Gems tab and define some gems along the curve of the largest solid. We'll respect the parameters shown in the image.



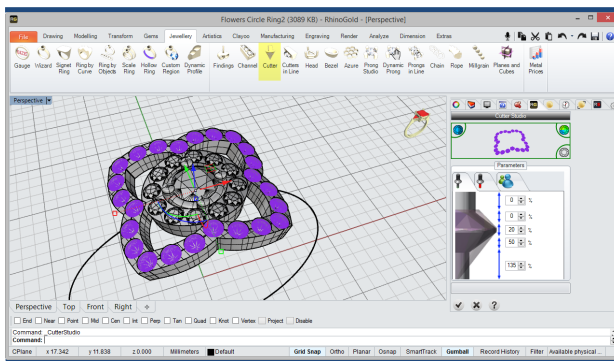
## 17 Extract Surface

Repeat the operation with the Extract Surface tool applied on the small solid.



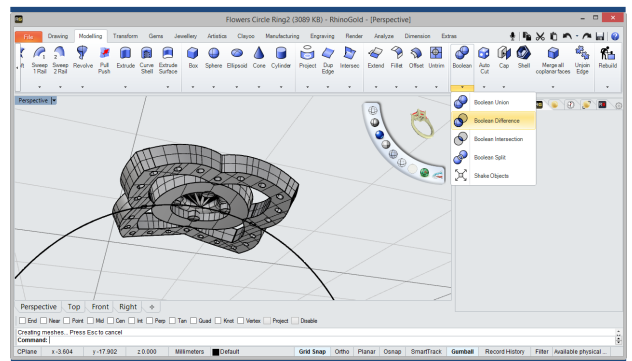
## 18 Gems by Curve

Also, we'll repeat the process of defining gems along the curve, applied in small solid, with the Gems by Curve tool.



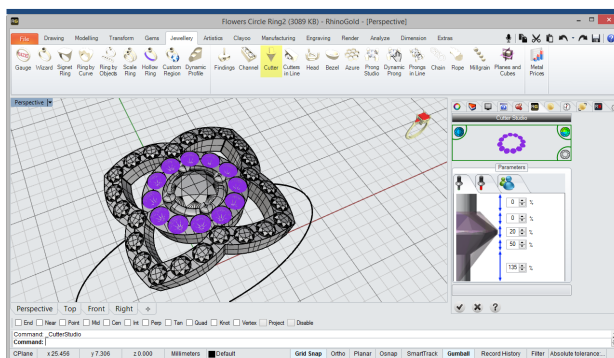
## 19 Cutter

In this step, we'll define the prongs to the Gems of the large solid, with the Cutter tool, in the Jewellery tab.



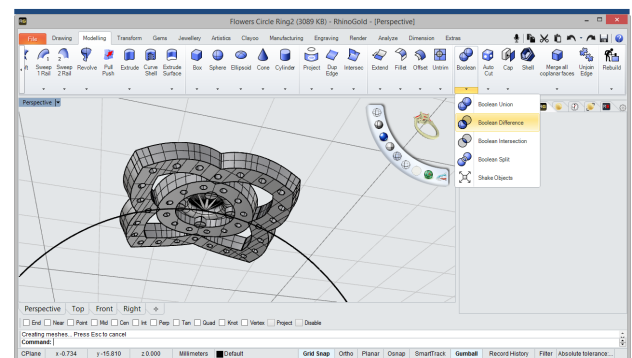
## 20 Boolean Difference

Then, we'll apply a Boolean Difference to subtract the cutters in the solid surface.



## 21 Cutter

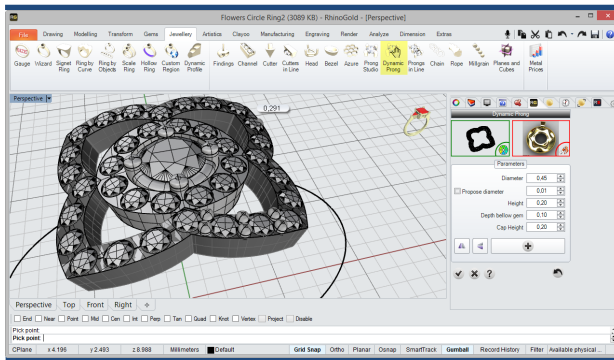
Repeat the applying process of the Cutter tool to the Gems to the small solid.



## 22 Boolean Difference/Boolean Union

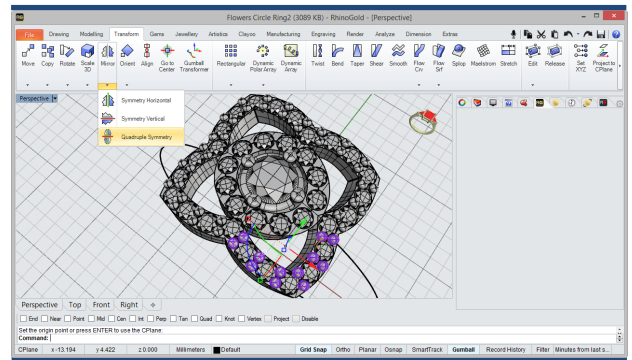
Also we'll repeat the operation with the Boolean difference to subtract the cutters in the solid surface. After will join the two solids with a Boolean Union.





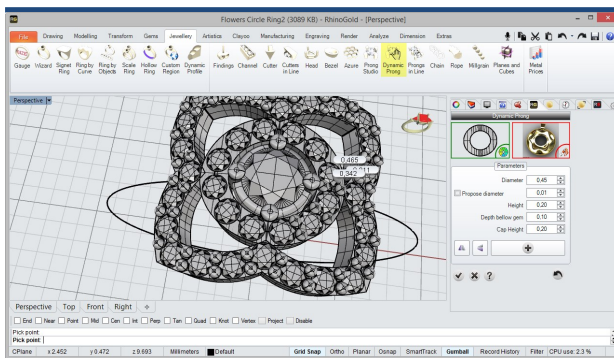
## 23 Dynamic Prong

Next, we'll define a prongs to the gems in the large solid, with Dynamics Prong tool, in the Jewellery tab. Apply the Prongs only 1/4 of solid and respect the parameters of the image.



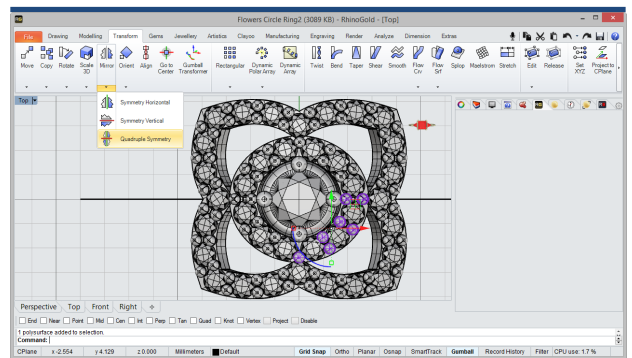
## 24 Quadruple Symmetry/Boolean Union

Now, we'll apply a Quadruple Symmetry to the prongs defined in the previous step and apply a Boolean Union between prongs and solid.



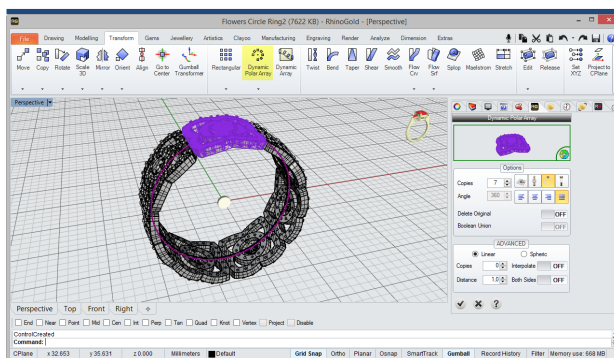
## 25 Dynamic Prong

Repeat the operation with the remaining gems, apply the Dynamic Prong tool 1/4 gems.



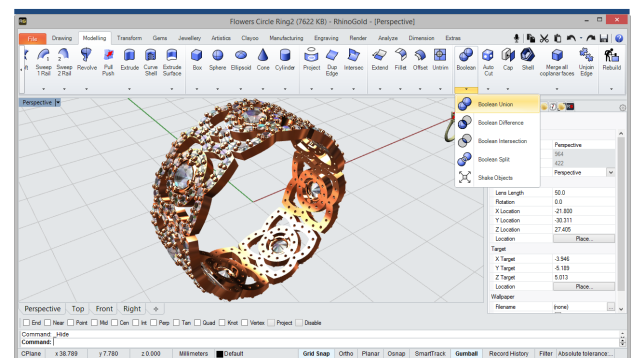
## 26 Quadruple Symmetry/Boolean Union

Then, we'll apply a Quadruple Symmetry to the group prongs and apply a Boolean Union between prongs and solid.



## 27 Dynamic Polar Array

Then, we'll select the Dynamic Polar Array tool, in the Transform tab and we'll apply an array of 7 copies.



## 28 Boolean Union

Finally, we'll apply a Boolean Union between the copies, to unify the ring.