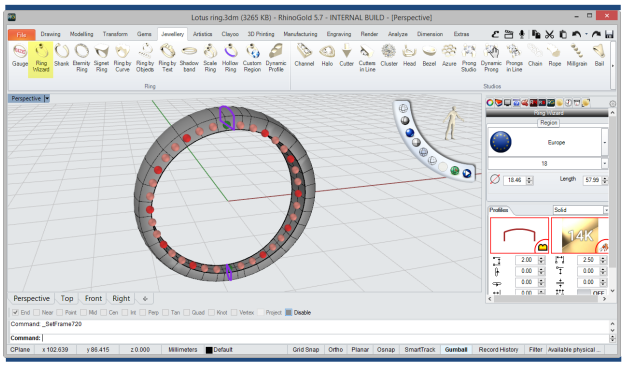
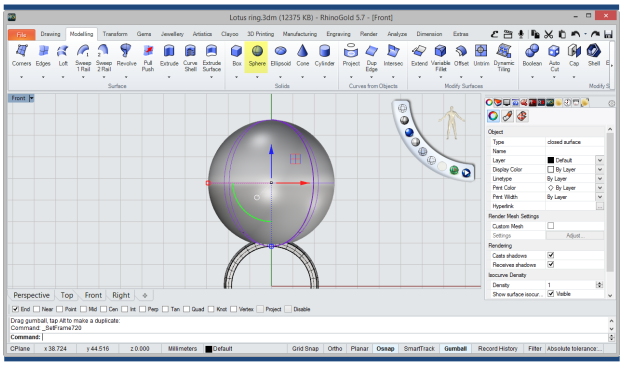
Lotus Flower Ring

In this tutorial we'll try some of the more useful commands in RhinoGold. Powerful tools such as Ring Wizard, Interpolate on Surface, Gems by Curve, Pearls, Extract Isocurves and Prongs in Line.



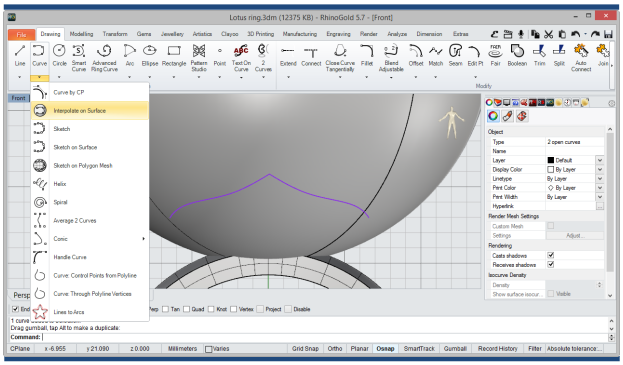
1 Ring Wizard

First, we'll go to the Jewellery tab and select the Ring Wizard tool, define a ring of 2 mm in thickness, 2.50 mm in wide at the top profile and 2 mm on the lower profile.



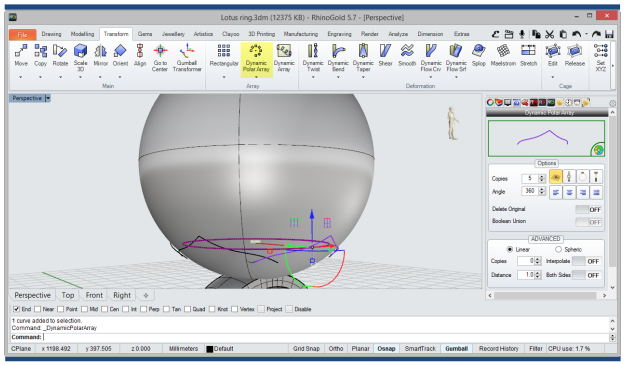
2 Sphere

Next, we'll define a solid of 30 mm in diameter using the Sphere tool, in the Modelling tab.



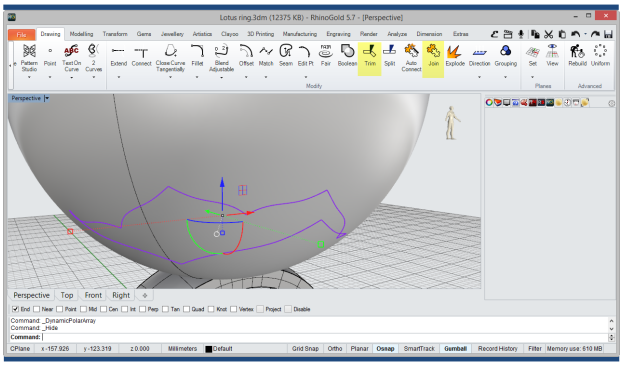
3 Interpolate on Surface

Now, we'll trace a curve on the Sphere surface similar to that shown in the image using the Interpolate Surface tool, located within the Curve submenu, in the Drawing tab.



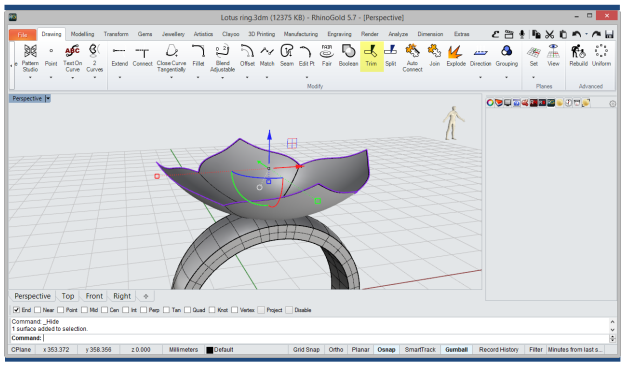
4 Dynamic Polar Array

In this step, we'll apply an array of 5 copies to the curve traced in the previous step with Dynamic Polar Array tool, in the Transform tab.



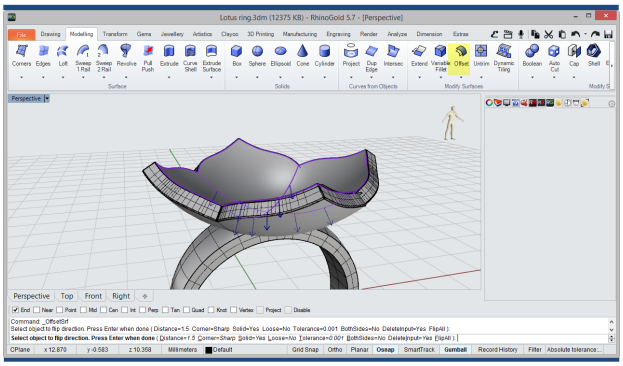
5 Trim / Join

Then, We'll apply the Trim tool between the array curves by removing intersection curves. After we'll unite the curves with the Join tool, obtaining a closed curve.



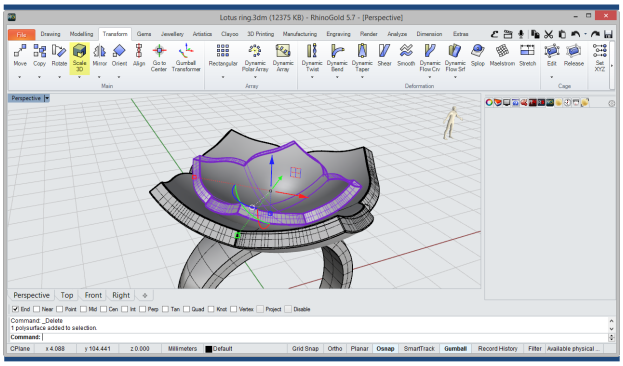
6 Trim

In this step, we'll repeat the operation with the Trim tool, in this case applying it between the closed curve and sphere.



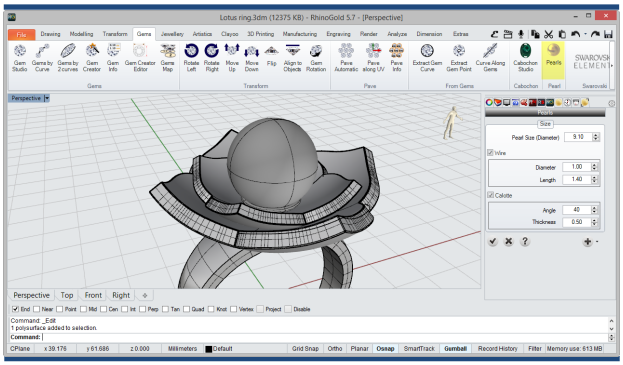
7 Offset

Now, we'll apply a thickness of 1.5 mm on the surface obtained in the previous step, using the Offset tool, in the Modelling tab.



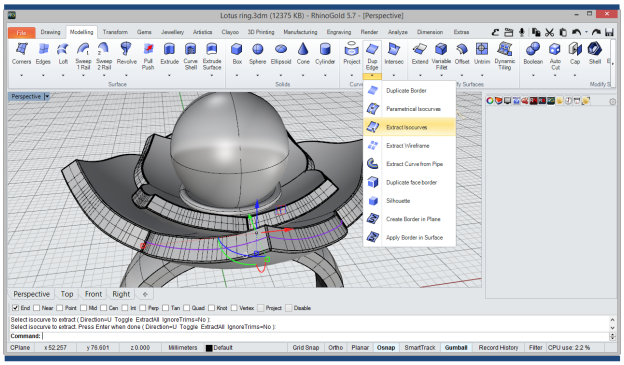
8 Scale 3D

Then, we'll scale the solid defined in the previous step with Scale 3D tool located in the Transform tab.



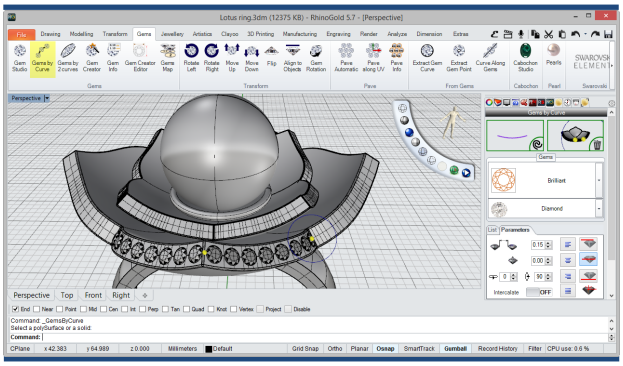
9 Pearls

In this step, we'll define a Pearl of 9mm, using the Pearls tool, in the Gems tab, activate the option of Wire and Calotte. We'll position the Pearl in the center of the piece.



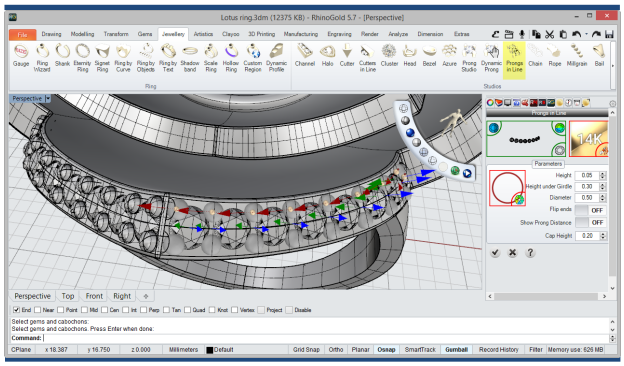
10 Extract Isocurves

Now, we'll extract the central curves of one of the solid sides, we'll use the Extract Isocurves tool, in the Modelling tab, within the Duplicate Edge submenu.



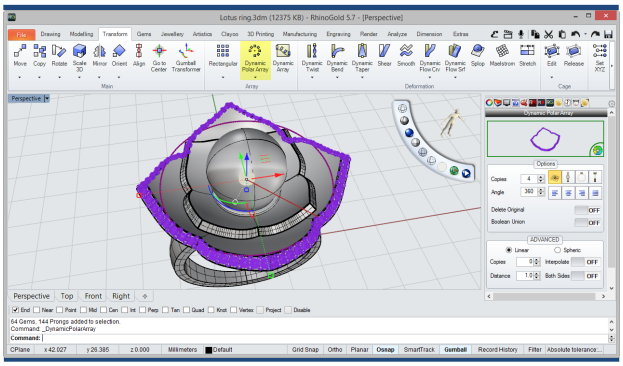
11 Gems by Curve

Then, in the Gems tab, we'll select the Gems by Curve tool and define seven gems along the extracted curves.



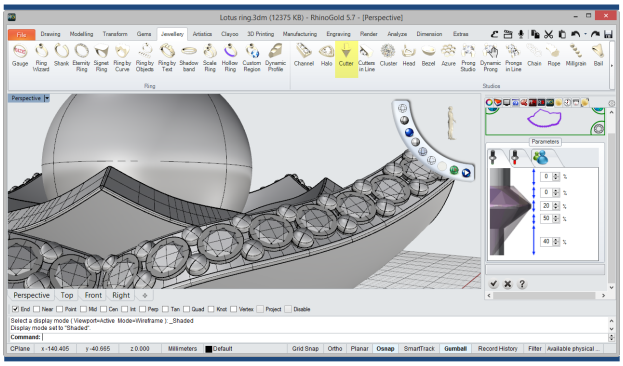
12 Prongs in Line

In this step, we'll define the prong gems with Prongs in Line tool located in the Jewellery tab.



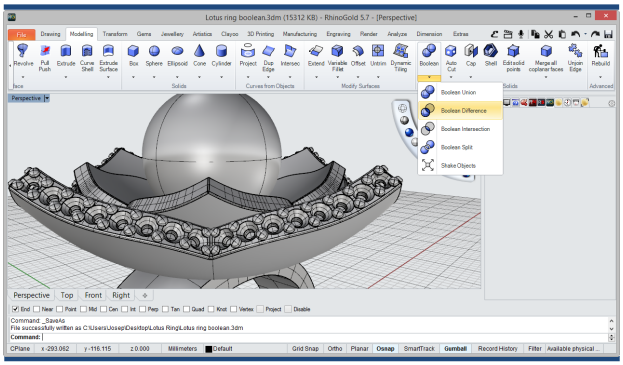
13 Dynamic Polar Array

Now, we'll define an array of 4 copies to the gems with prongs, using the Dynamic Polar Array tool.



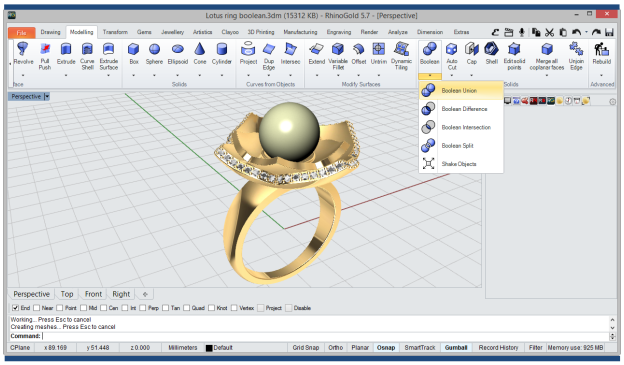
14 Cutter

Then, we'll define the cutters to the gems with the Cutter tool, in the Jewellery tab.



15 Boolean Difference

In this step, we'll apply a Boolean Difference between the cutters and solid subtracting the cutters from solid surface.



16 Boolean Union

Finally, we'll apply a Boolean Union between all solids to unify the piece.