RhinoGold®

GoldSmith Studio for Rhino

Tutorial – Pave Ring
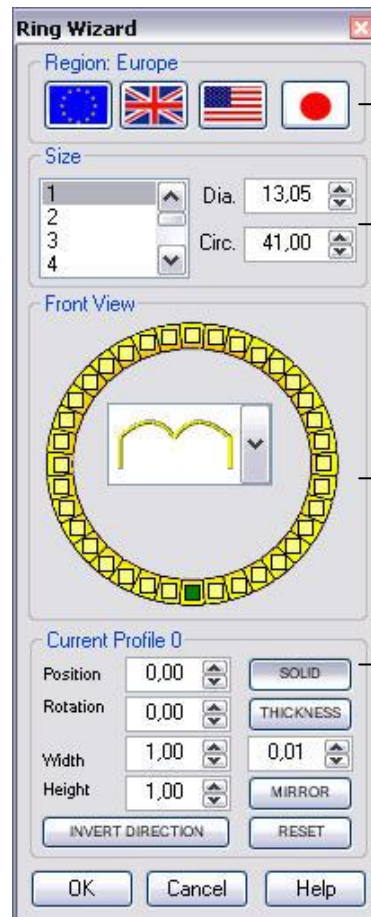
RhinoGold®
GoldSmith Studio for Rhino

Pave Ring

In this tutorial, you'll see how to create a ring in just a few very simple steps.

Pave Ring

Click on the TDM icon and save the file as **Pave Ring**.

1. The first step is to click on the **Jewellery** tab and run the **Wizard** command.

2. After clicking the **Wizard** icon, a window appears where you can create the basic ring.

First you select the type of numbering you want.

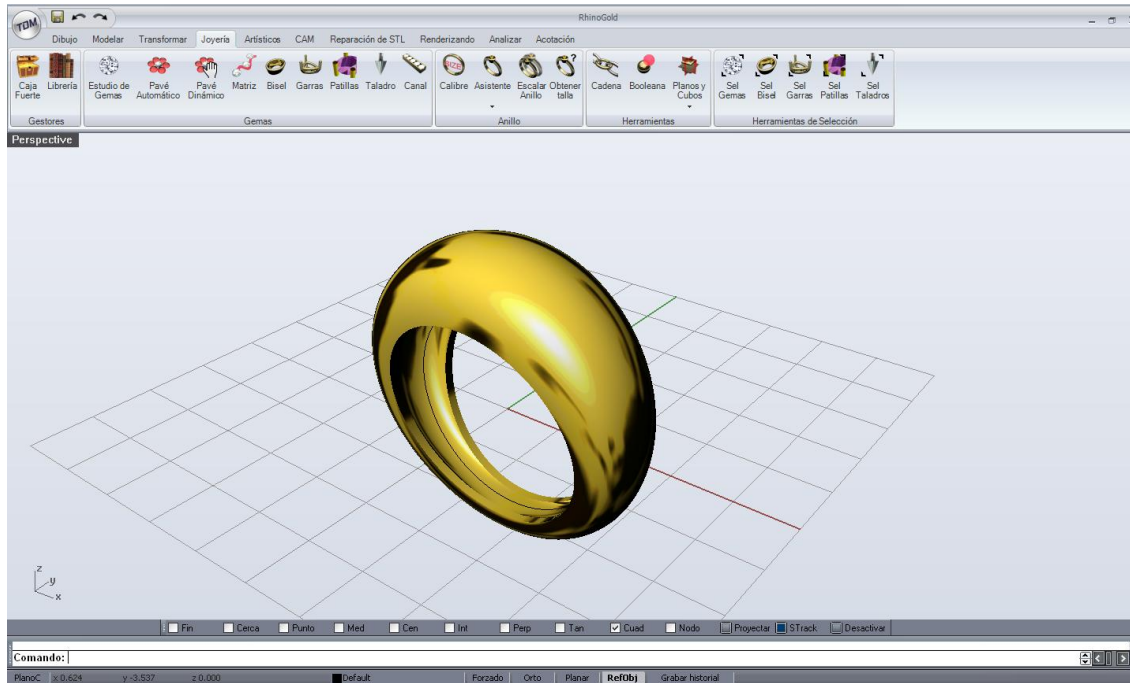You then enter the measurement, either as the shaft size or the diameter.

This graphic lets you allocate a different section to each of the small squares.

Here you can define the parameters of the section you've selected (shown in green in the graphic above).

Ring

3. You modify the values in order to create a ring.

4. Once the ring has been created, you can start placing the gems of the pave. In this case, you'll use the dynamic pave because it allows you to place the gems in a more highly customised way.

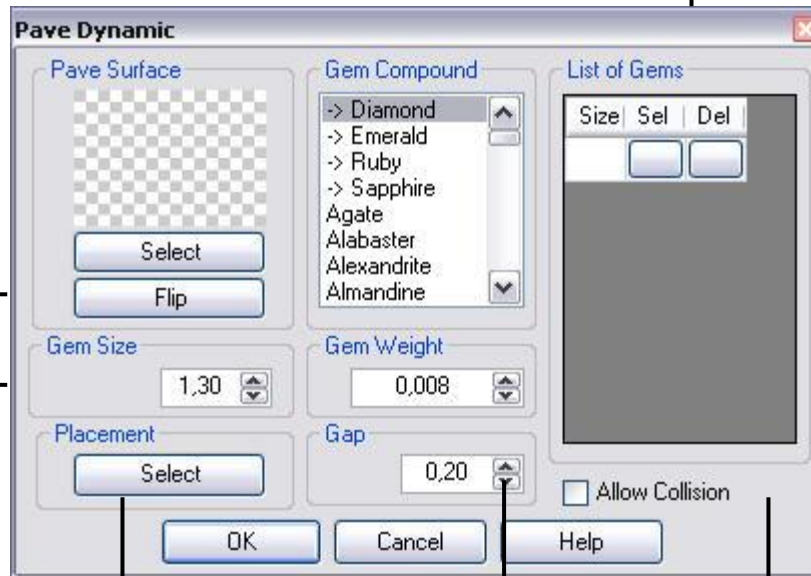**5.** On running this command, the following menu appears.

When designing the ring, you must ensure that the section of the ring is not excessively wide, otherwise this would feel awkward for the fingers in contact with the ring.

Notes:

Notes:

First you select the surface on which you want to create a pave.

This list lets you select (Sel) or delete (Del) gems individually.

Pave Dynamic

Pave Surface
Select
Flip

Gem Compound
-> Diamond
-> Emerald
-> Ruby
-> Sapphire
Agate
Alabaster
Alexandrite
Almandine

List of Gems
Size | Sel | Del

Gem Size
1,30

Gem Weight
0,008

Placement
Select

Gap
0,20

☐ Allow Collision

OK   Cancel   Help

This parameter lets you define the size of the gems in the pave in millimetres or carats.

By clicking on "Select", you can define the placement of the first gem in the pave.

The main purpose of this is so that you can see whether the size is correct.

The gap is the space between two gems. It will be impossible for you to place two stones closer together than the distance you've entered.

If Allow Collision is enabled, the gems may collide with each other.

Notes:

To ensure that the pave is well-positioned, you can create rails above the surface that will allow you to place the gems correctly. These rails are always curves, so they also work with reference objects.

To create these curves, run the command Extract Isocurves located on the Model tab.
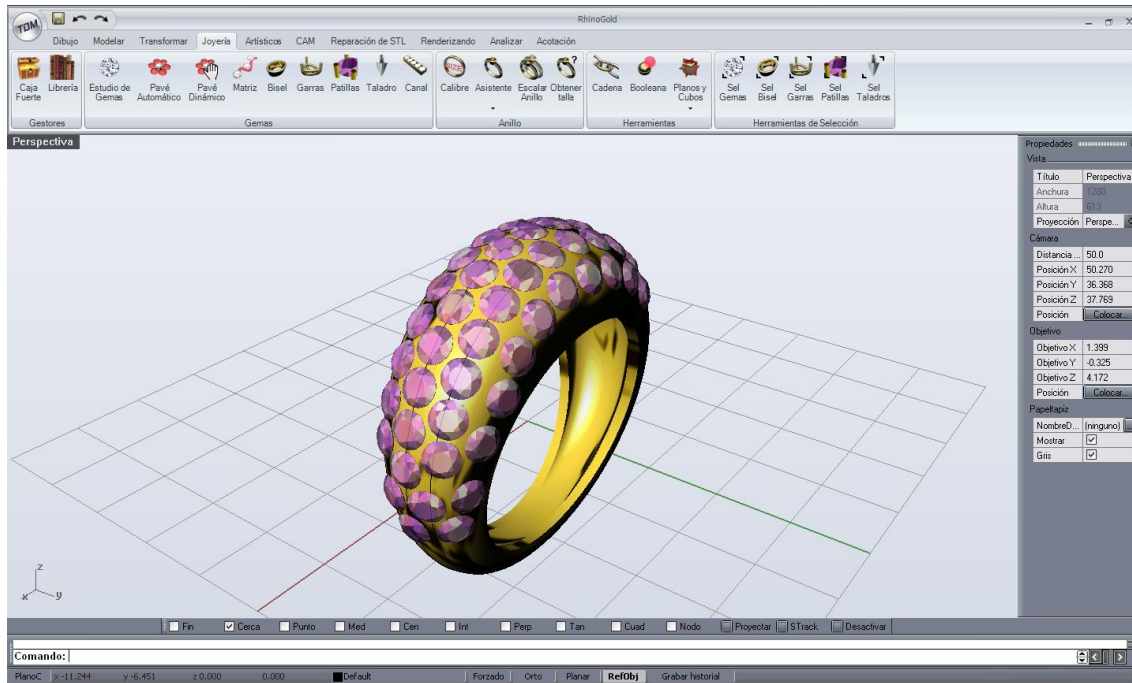
Dup Edge

Extract Isocurves

4 isocurves
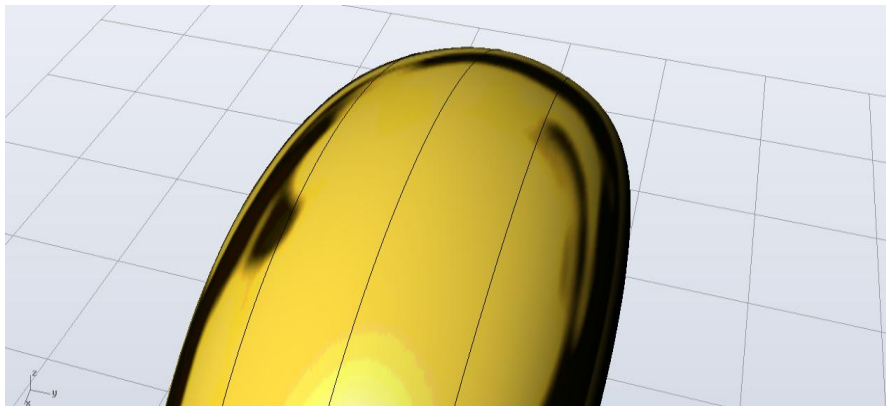
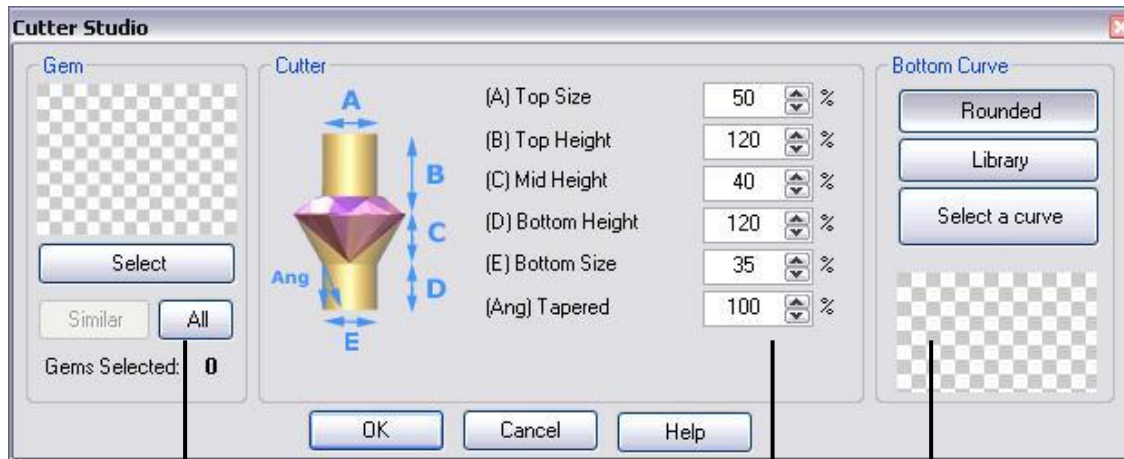6. Once the pave has been placed, you should have a uniform gems surface.

7. Then you create the holes for the gems. To do so, select the **Cutter** command located on the **Jewellery** tab.

On launching this command, the following menu appears.

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Cutter Studio

Gem

Select

Similar | All

Gems Selected: 0

Cutter

A
B
C
D
E
Ang

(A) Top Size — 50 %
(B) Top Height — 120 %
(C) Mid Height — 40 %
(D) Bottom Height — 120 %
(E) Bottom Size — 35 %
(Ang) Tapered — 100 %

Bottom Curve

Rounded

Library

Select a curve

OK | Cancel | Help

If you click on "All", you select all the gems in the ring to make the holes. If you click on "Select", the gems can be selected one by one.
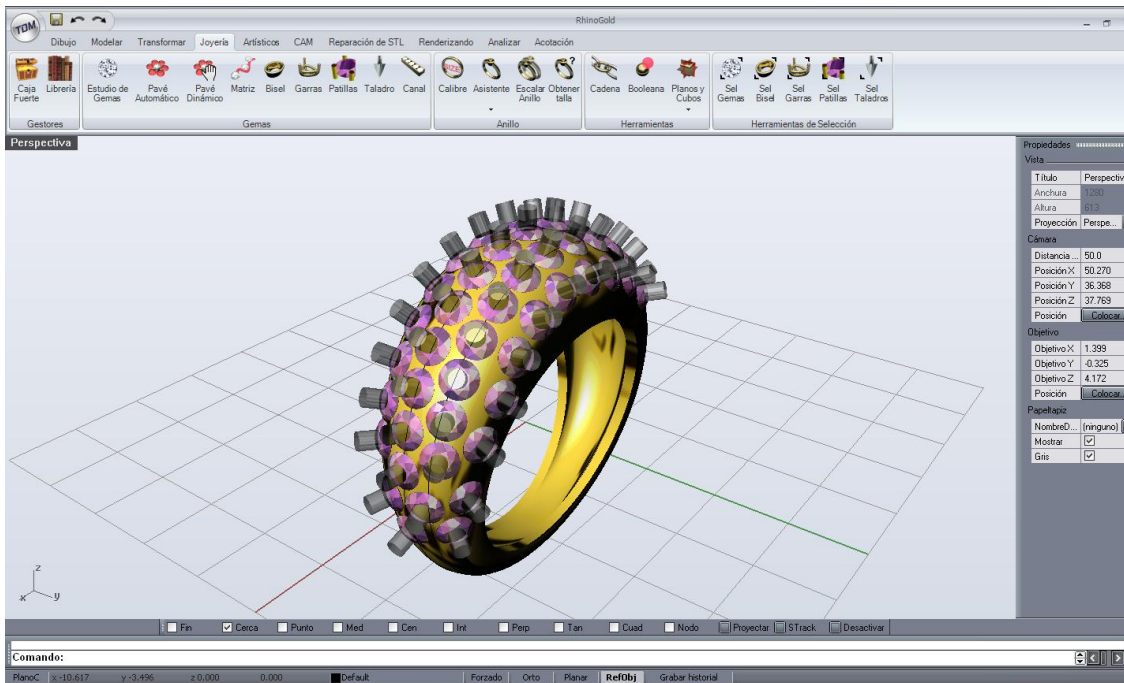
In this case, you click on "All".

Alter clicking on "All", the program automatically adjusts the hole values to those of the selected gem.

Finally, you can define the type of hole you want to make with the drill bit. By default, Rounded is selected.

Notes:

**8.** Once the wizard is finished, the cut holes should be visible, as shown below.

9. Then you must remove the cut holes from the solid to create the space in which the gem will be placed, but if you now attempt to create the Boolean difference, it may cause errors, because you have one element that gets in the way of the rest. This element is the gem, and you have to hide it.

It is preferable to hide the gems rather than deleting them, because in this way you already have them in place if you want to create a render later.
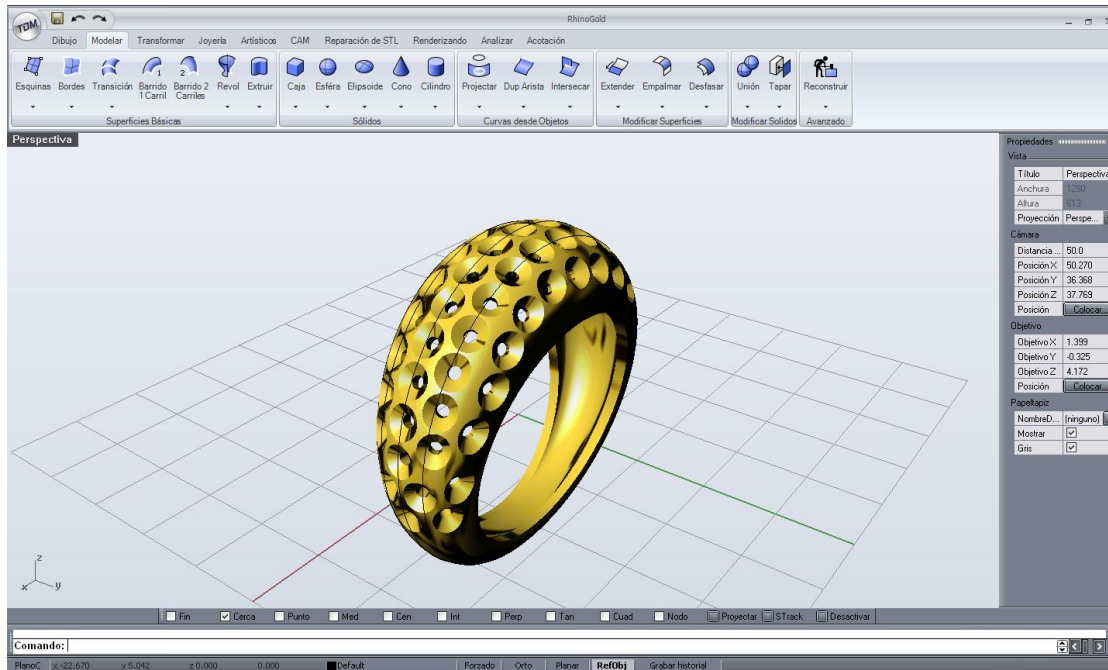
Notes:

To hide the gems, simply go to the **Jewellery** tab, select the command **Sel. Gems** and press the middle mouse button to **Hide**.
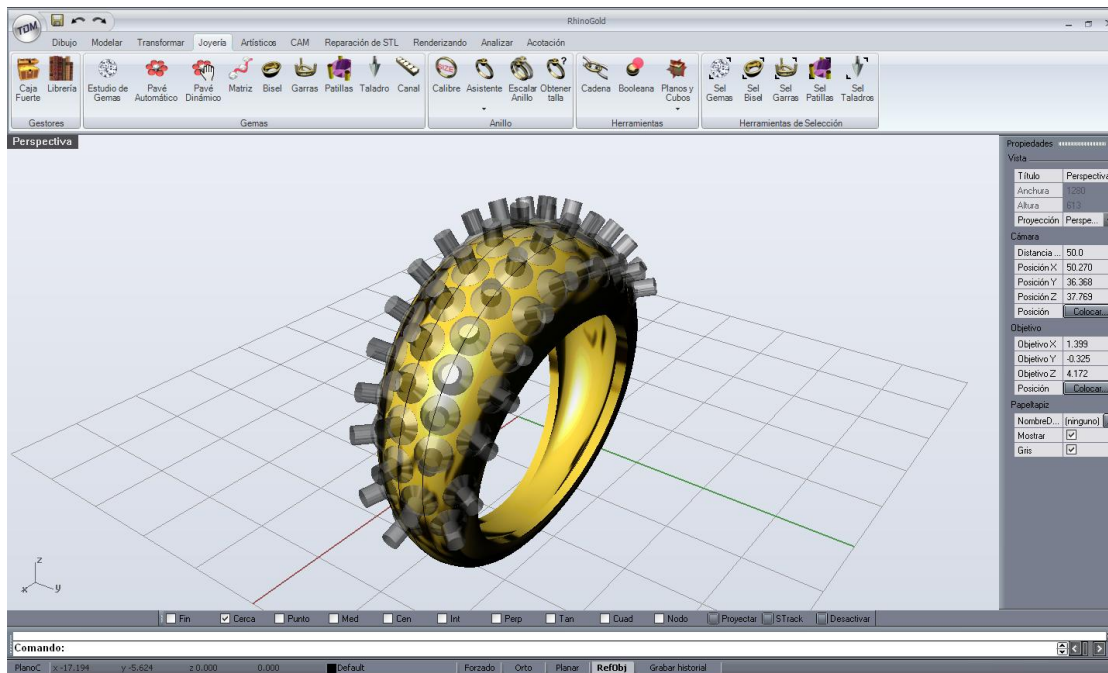
Notes:

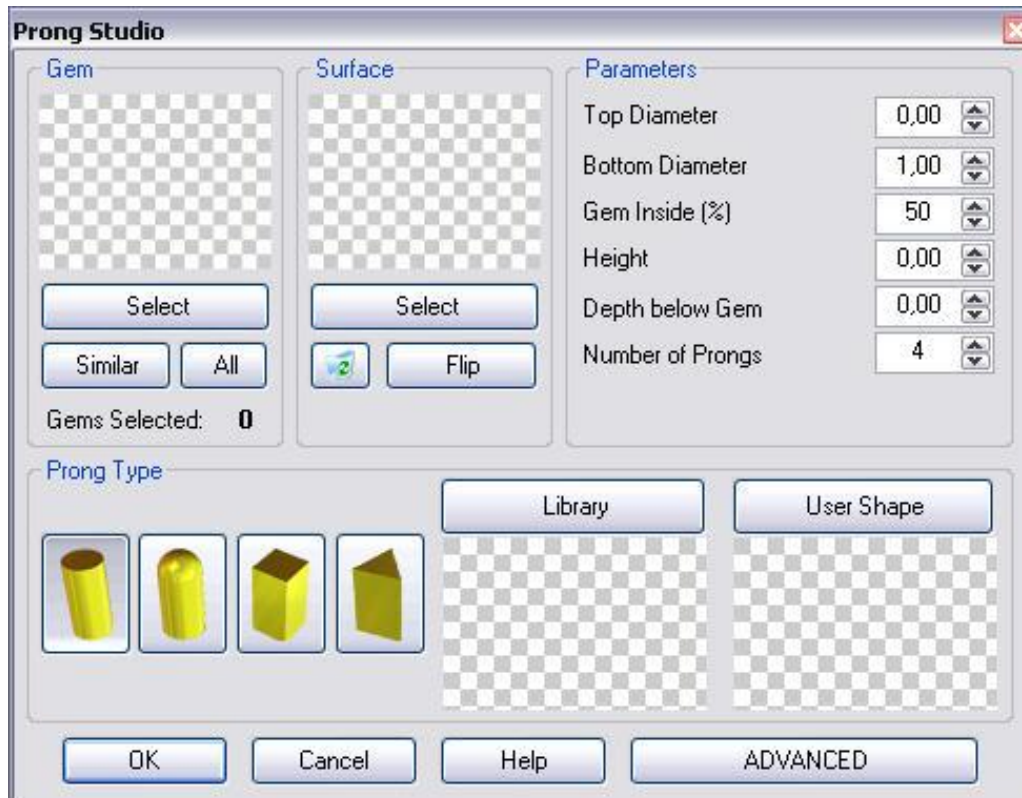10. Now you can create the Boolean difference of the cut holes.

Then you show the gems again to begin placing the pins of the pave using the **Pins** command located on the **Jewellery** tab.
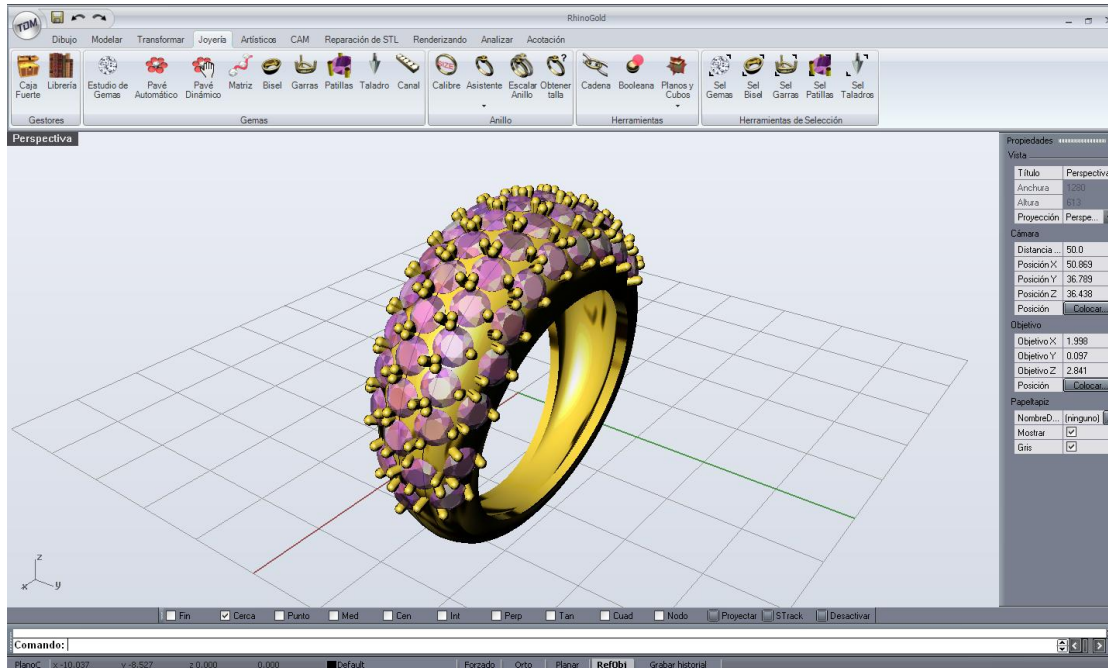
In this case, because it's a pave, you don't select all the gems at the same time, rather you'll select each gem individually. This method also allows you to orient the heads of each gem.

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Notes:

You select only one gem.

In this case, you select the ring.

Prong Studio

Gem

Select

Similar | All

Gems Selected: 0

Surface

Select

Flip

Parameters

Top Diameter 0,00

Bottom Diameter 1,00

Gem Inside (%) 50

Height 0,00

Depth below Gem 0,00

Number of Prongs 4

Prong Type

Library | User Shape

OK | Cancel | Help | ADVANCED

Prong

To finish, you just need to create a Boolean union of the pins with the ring.

Notes: