

the Iceman

JR.

presents

Modeling a Sports Car Wheel

IN

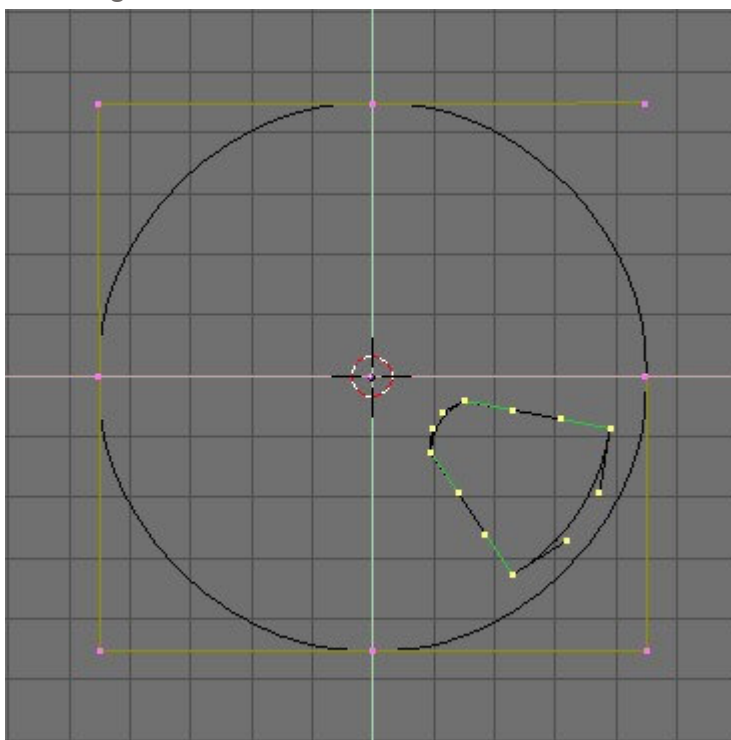
BLENDER



The above image was created with a freeware version of [BLENDER](#) in just 13 simple steps. (Actually this is an 'Iceman Jr.' release) This tutorial assumes you know the basics of adding primitives to a scene. Let's get started.

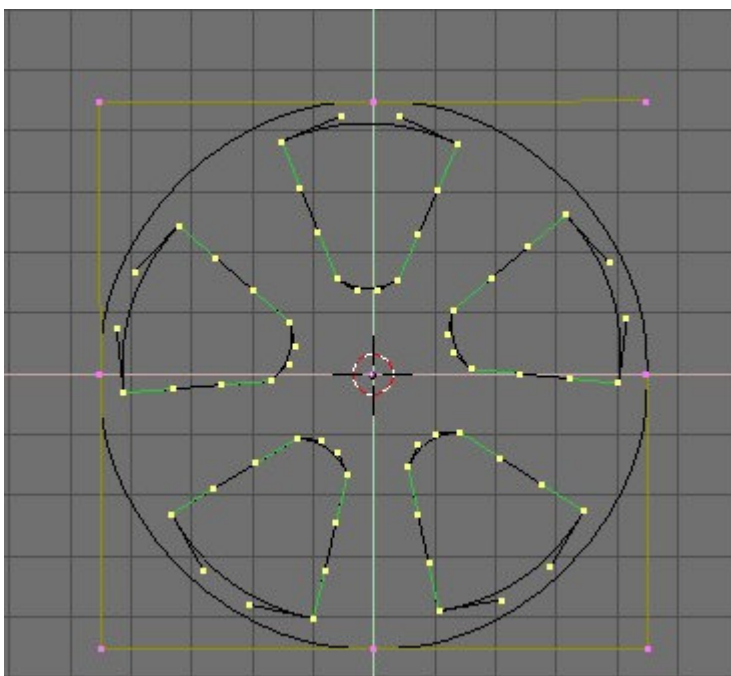
STEP 1

Start out with a clean 3D screen and add a Nurbs Circle. Inside of it add a Bezier Circle and adjust it like in the image. Handles will have to added or removed.



STEP 2

Duplicate the inner curves 4 times.



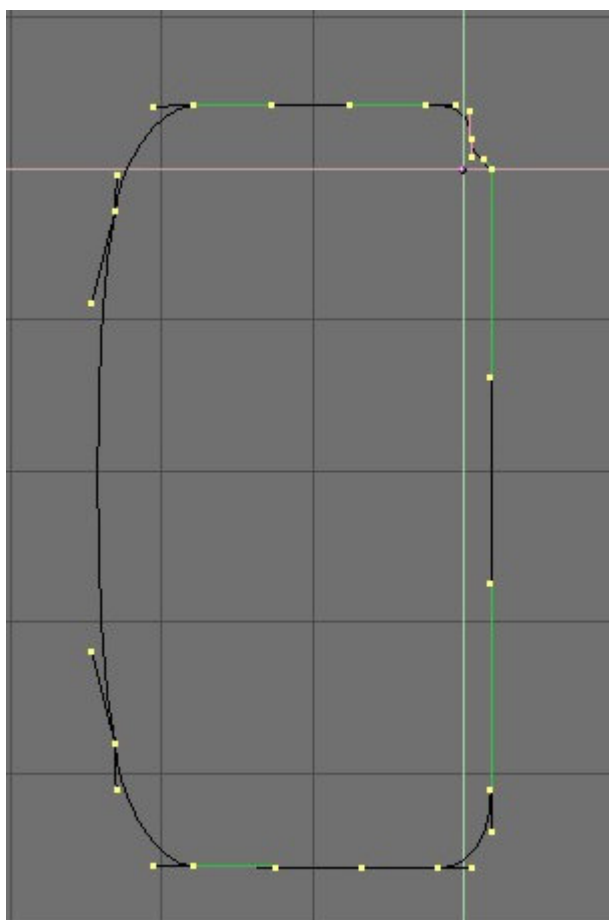
STEP 3

Go to the Edit Buttons and adjust the extrusion parameters.



STEP 4

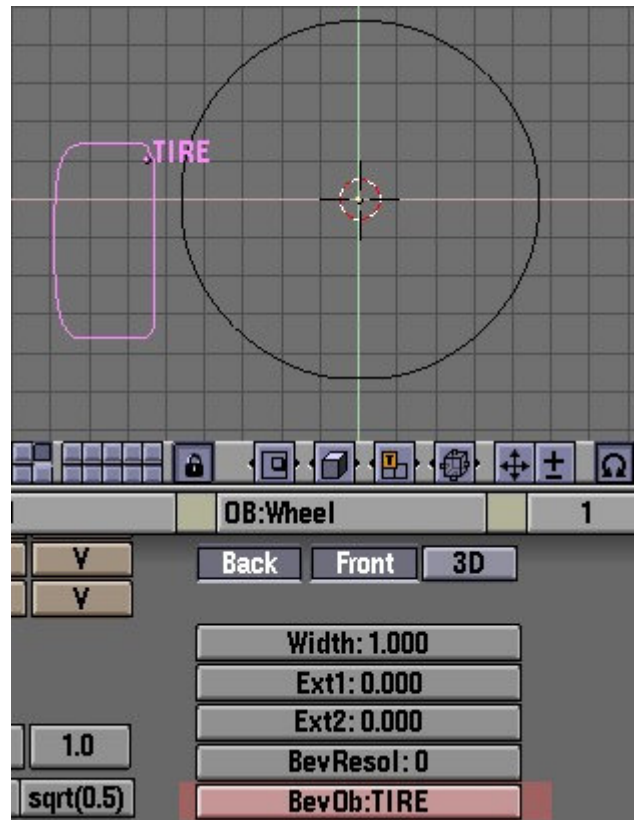
In top view add a Bezier Circle and add-remove handles and adjust them to create the profile of the rubber tire.



This profile will be made the bevel object of a CurveCircle so add one.

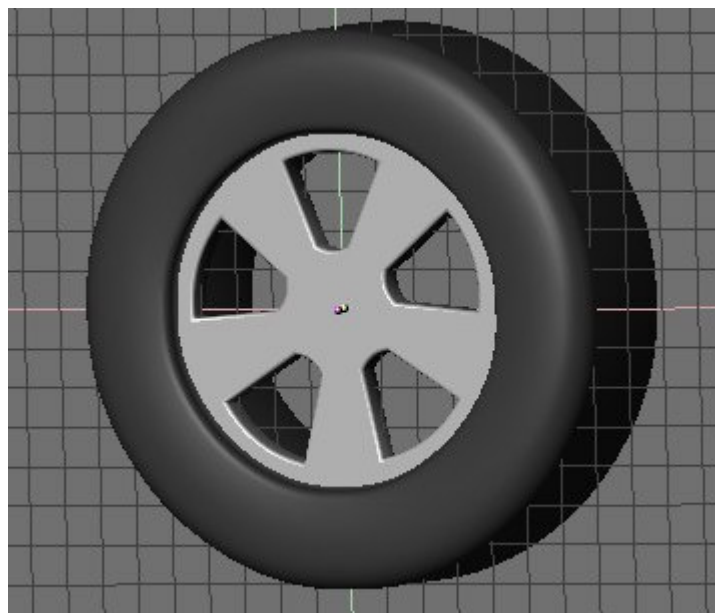
STEP 5

Select the circle and in the Edit Buttons add the name of the profile curve in the button that is highlighted below.



STEP 6

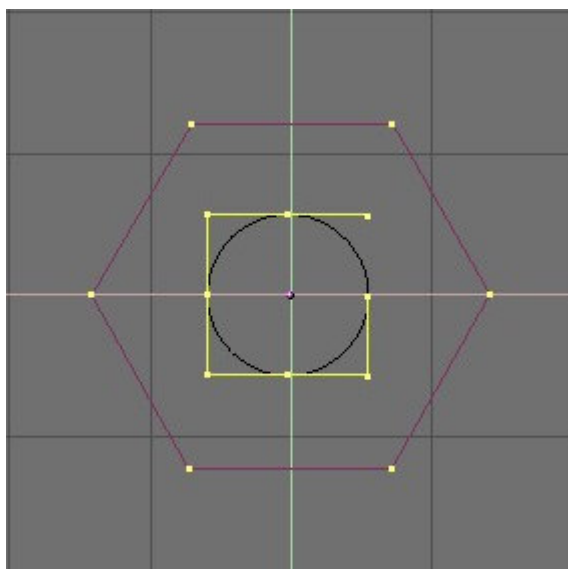
This is what we have so far.



Now lets add some small parts for detail.

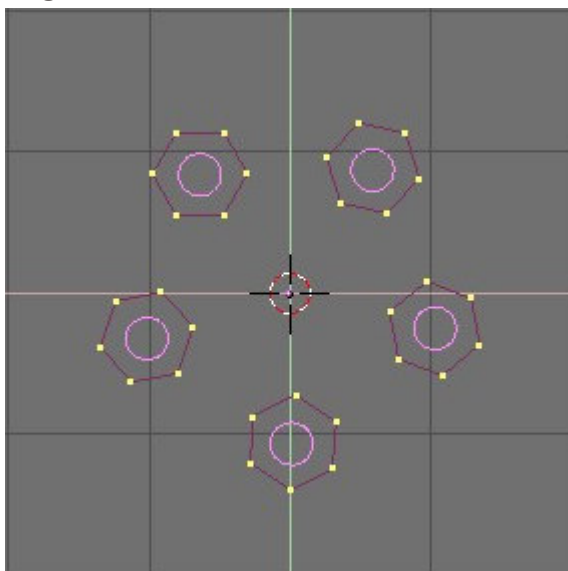
STEP 7

In top view add a Nurbs Circle inside of a Nurbs Circle. Convert the larger on to type 'Poly' by clicking the 'Poly' button in the edit buttons window. Reshape it to a hexagon.



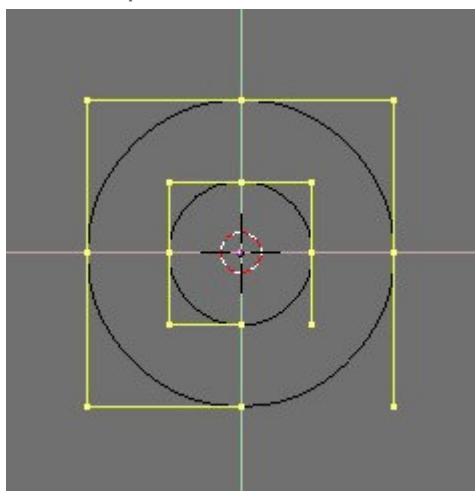
STEP 8

Duplicate everything 4 times and select the group of hexagons and hit the PKEY to separate them into their own objects. Extrude the center circles a little deeper than the hexagons. These are our lug nuts and bolts.



STEP 9

This is our center axle hub nut. Just put a Nurbs Circle inside of another.



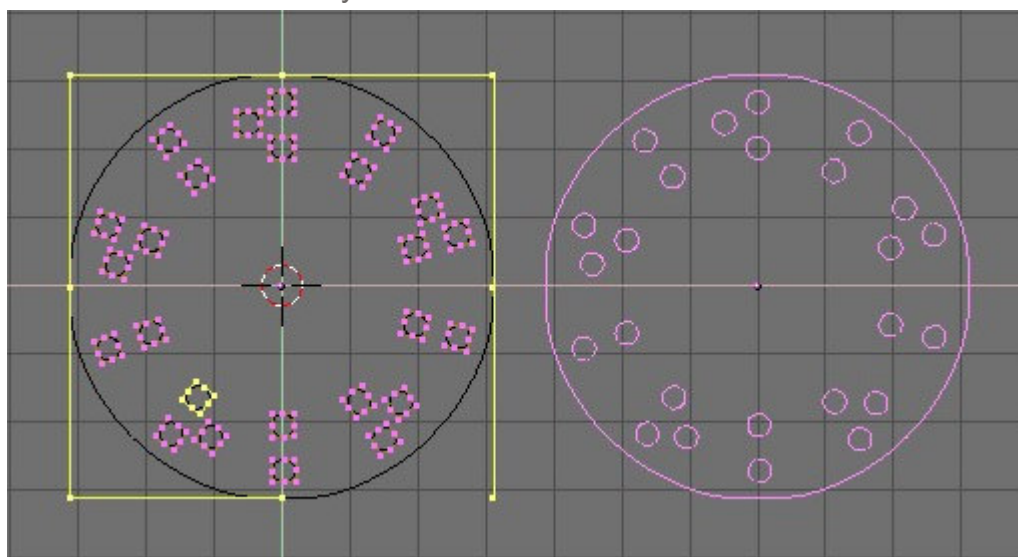
STEP 10

Look at all the different extrusions of the different parts. The easy part of this project is that ALL the objects have the same centers so alignment is easy.



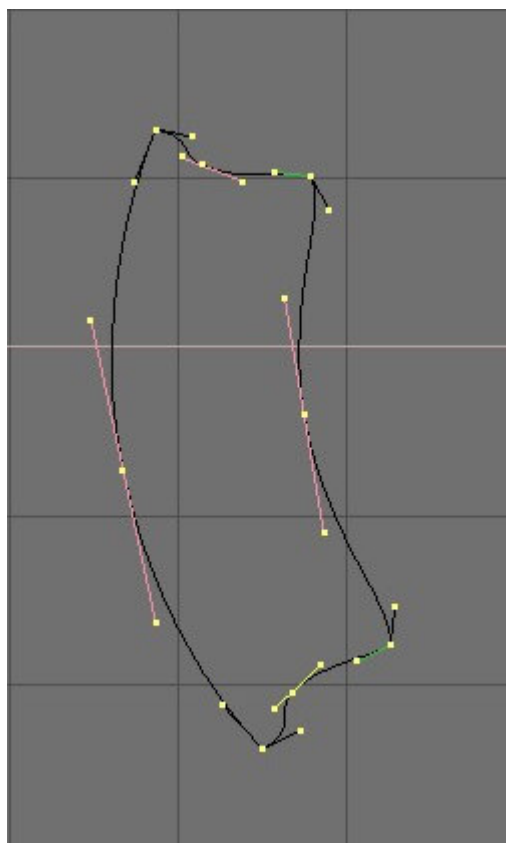
STEP 11

Now we will create the brake rotor. This is a large Nurbs Circle with many small ones inside of it. Extrude this curve to your taste.



STEP 12

The last part is the brake caliper. This is just a Bezier Circle with a lot of delicate adjustments.

**STEP 13**

Again extrude all the parts so they look like this.....



Again a finished shot of the textured wheel. Cool, isn't it ! The next thing to do would be to use a bump map for the tire tread. Maybe that will be in the next tutorial.

