



Design a Panda Toy

The PyeongChang Winter Olympics has just ended. Do you still remember the amazing Panda puppets in “Beijing 8 Minutes”?

Today, I’d like to show you how to design a cute Panda Toy with ZW3D software.



Figure 1 Panda Toy

Step1: Draw the 1st contour curve of a panda’s face on the YZ plane. And create some reference points on the Z axis.

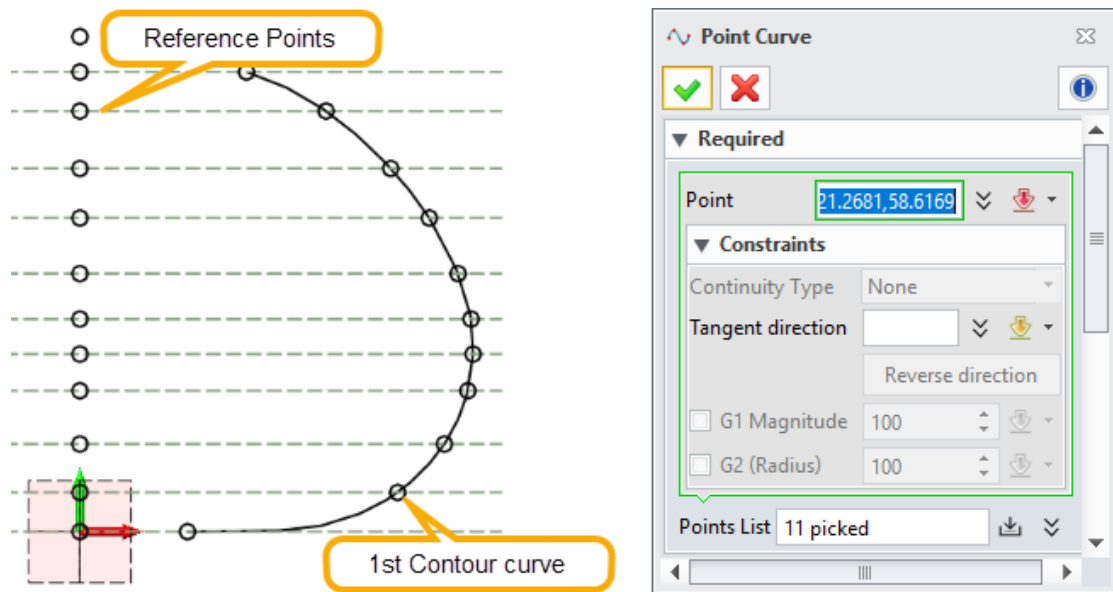


Figure 2 The 1st Contour curve



Step2: Use those reference points to draw the 2nd contour curve on the XZ plane. Then mirror the 1st and the 2nd contour curves to get the 3rd and the 4th contour curves.

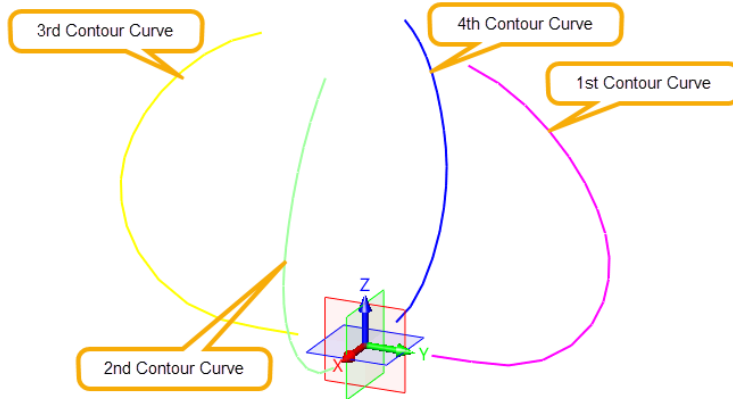


Figure3 Another 3 Contour Curves

Step3: Create the reference planes by offsetting XY plane to each reference point. After that, draw the Ellipses on the reference planes.

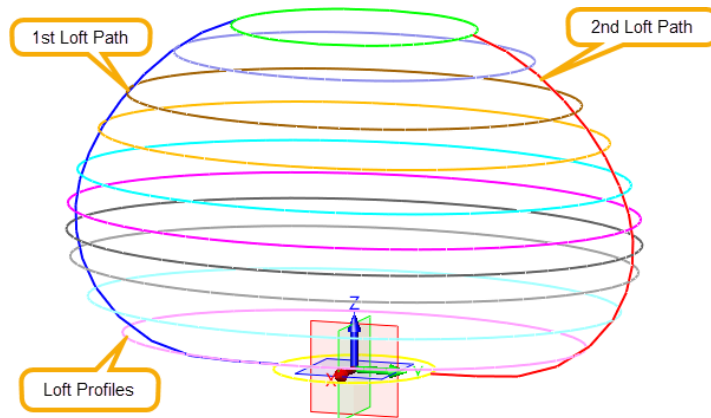


Figure4 Create the Loft Profiles

Step4: Create the Panda's surface with Bi Rail Loft command.

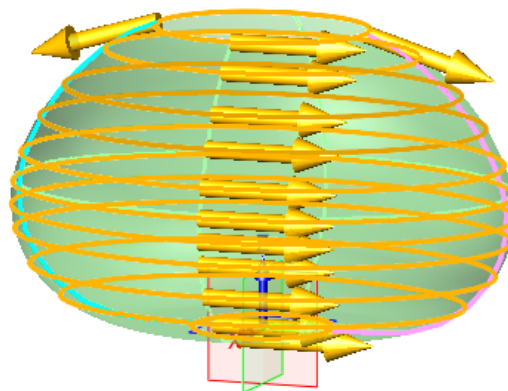
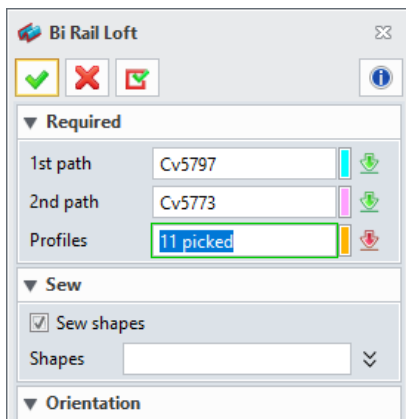


Figure5 Loft the Panda's Face

Step5: Use Dome command and Trimmed Plane command to create two side surfaces separately. Afterwards, the surface model is changed to a solid model.

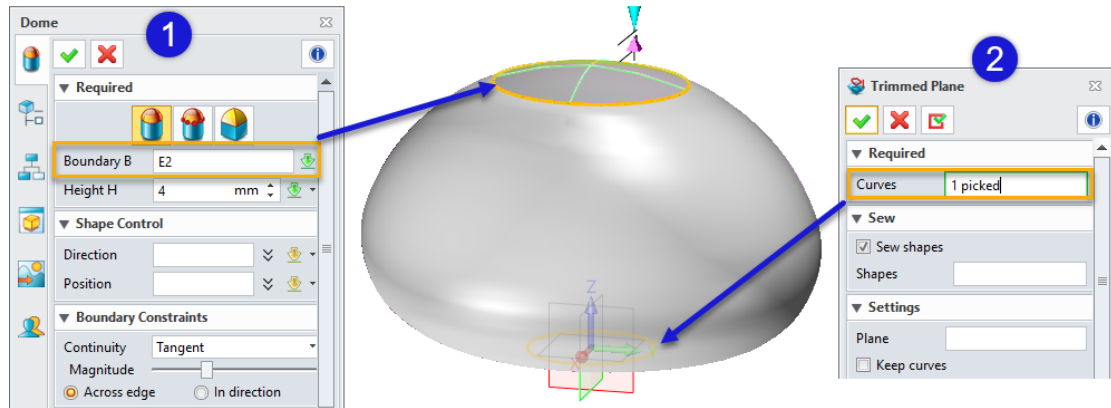


Figure6 Solid Model

Step6: Draw a sketch as shown below. And Project the sketch on the Panda's face.

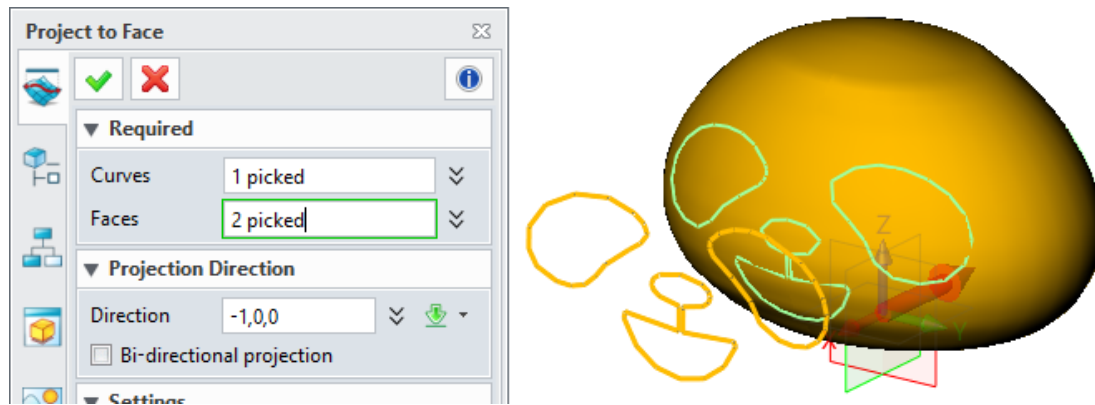


Figure 7 Projection Curves

Step7: Use "Split with Curves" command to divide the surfaces. Color the Panda's eyes, nose and mouth.

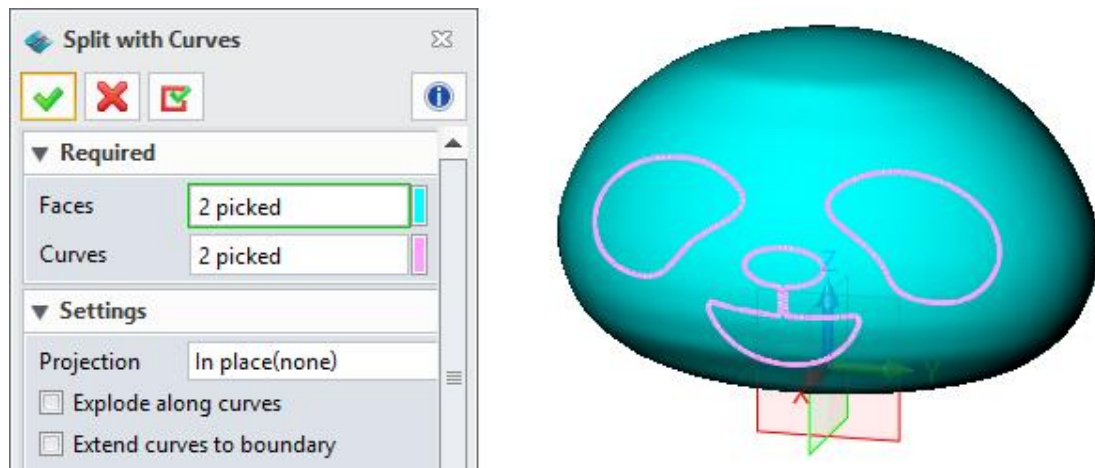


Figure 8 Divide the Face

Step8: Use the same method to complete the entire head of the panda.

Step9: Use the Sphere command to create the Panda's ears.

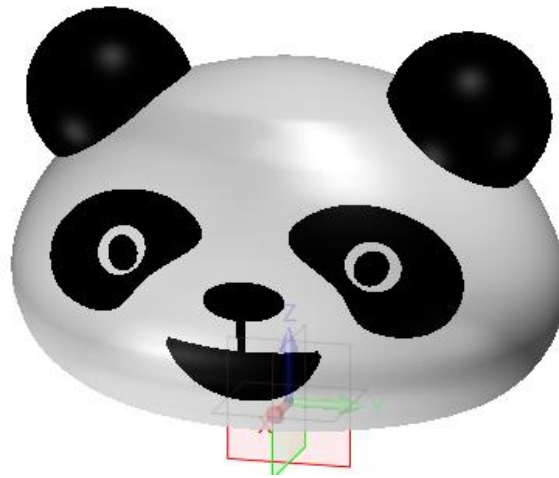


Figure 9 Divide the Face

Step 10: Create the Panda's body by Ellipsoid command. Set the parameters, as shown in the image below.

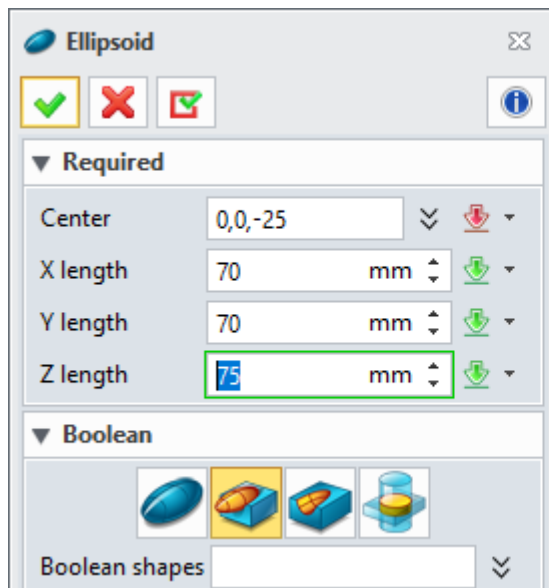


Figure 10 Optimize Design

Step 11: Create a reference plane for locating an ellipsoid as Panda's arm. Use the same way to finish the Panda design.

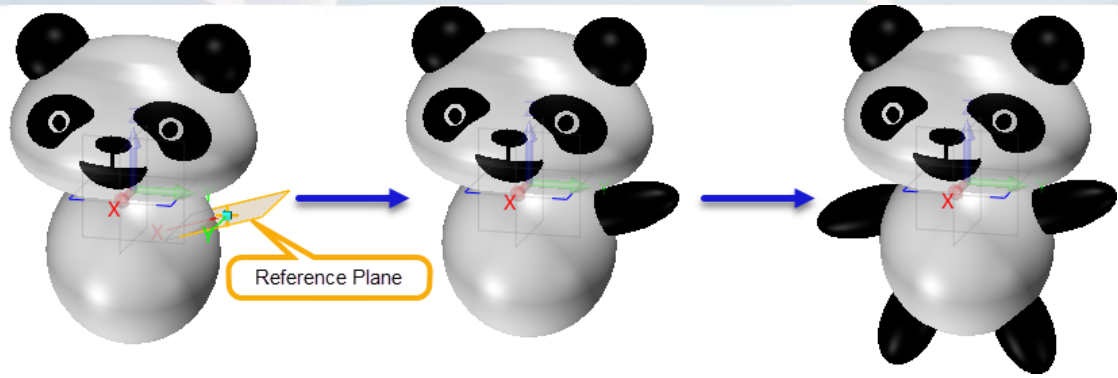


Figure 11 Final Design

Step12: Render your design in KeyShot and get an adorable the Panda toy.



Figure12 Product