Inserting Weld on Joints

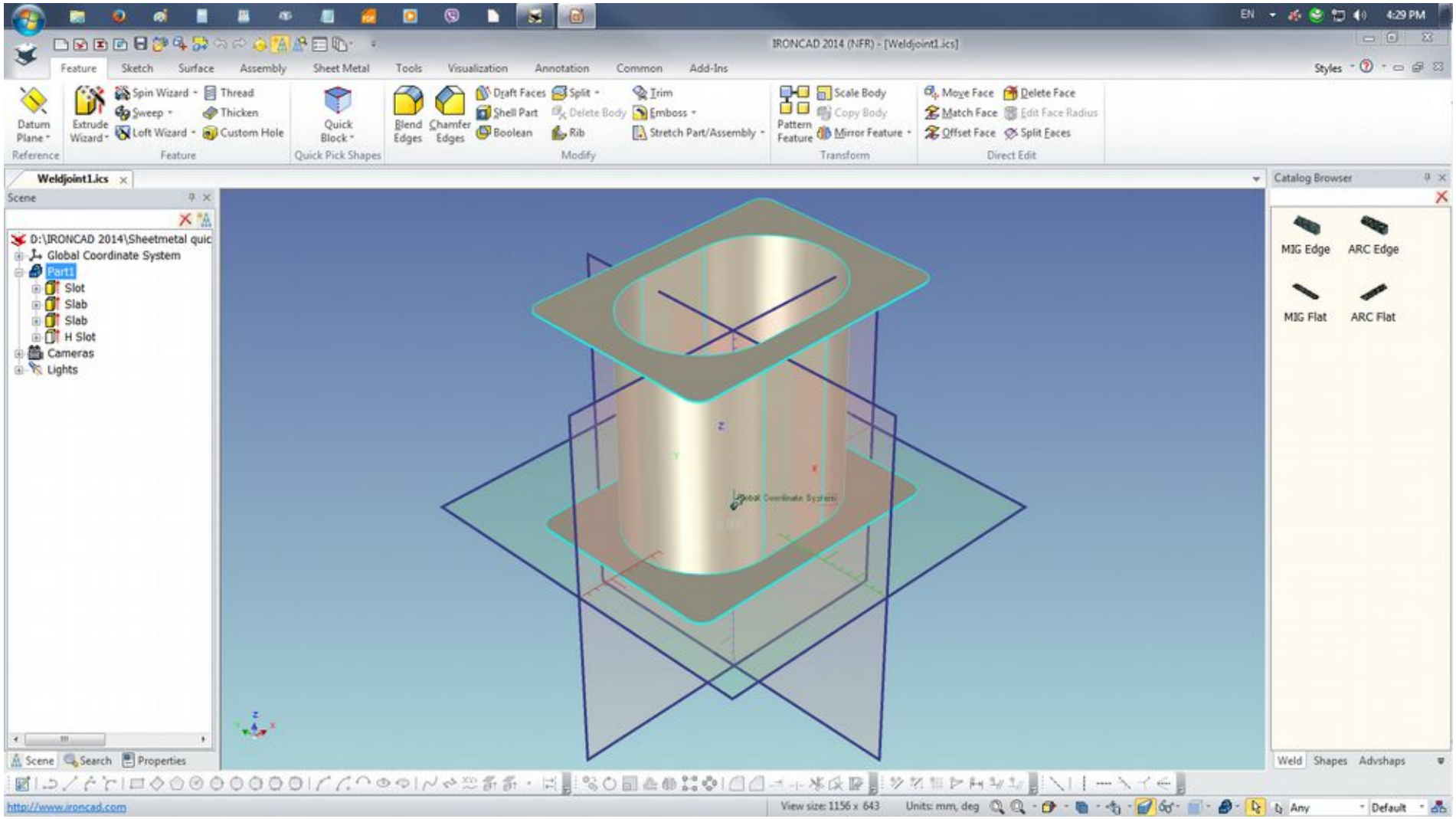
The Weld.icc catalog file needs to be loaded on your catalog browser. It contains:
ARC Edge, MIG Edge for corner edge weld with a bead size of 6.14 mm
ARC Flat, MIG Flat for seam weld between the gap of two welding flat plates or linear gap fill with a bead size of 5.13

The image textures are from Vivid Details that came with Trispectives Professional and was converted to gray scale png image file

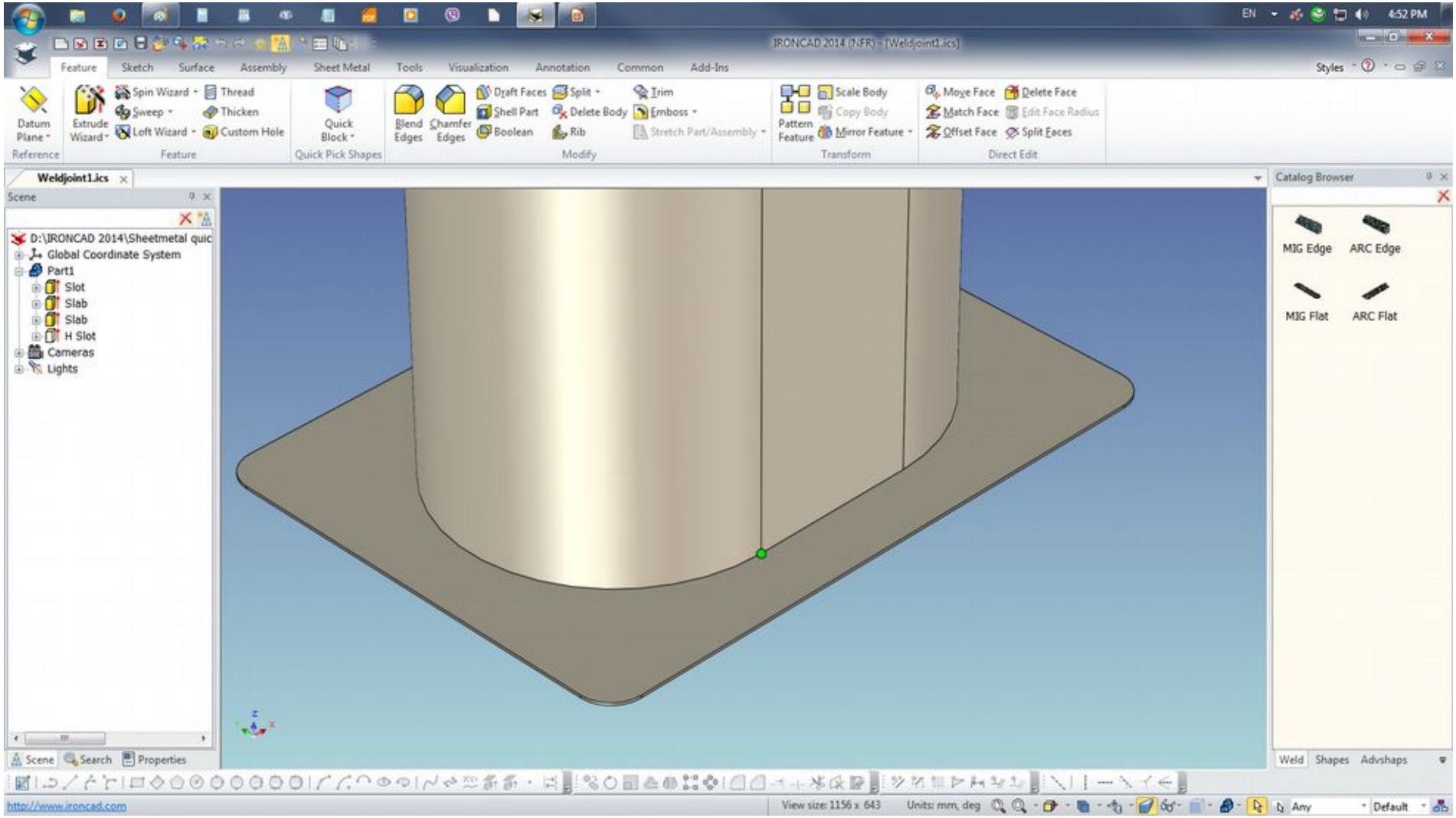
Special thanks to Cary O'Connor and Jonas Bryntesson for their insights.

SPIRE dynamics

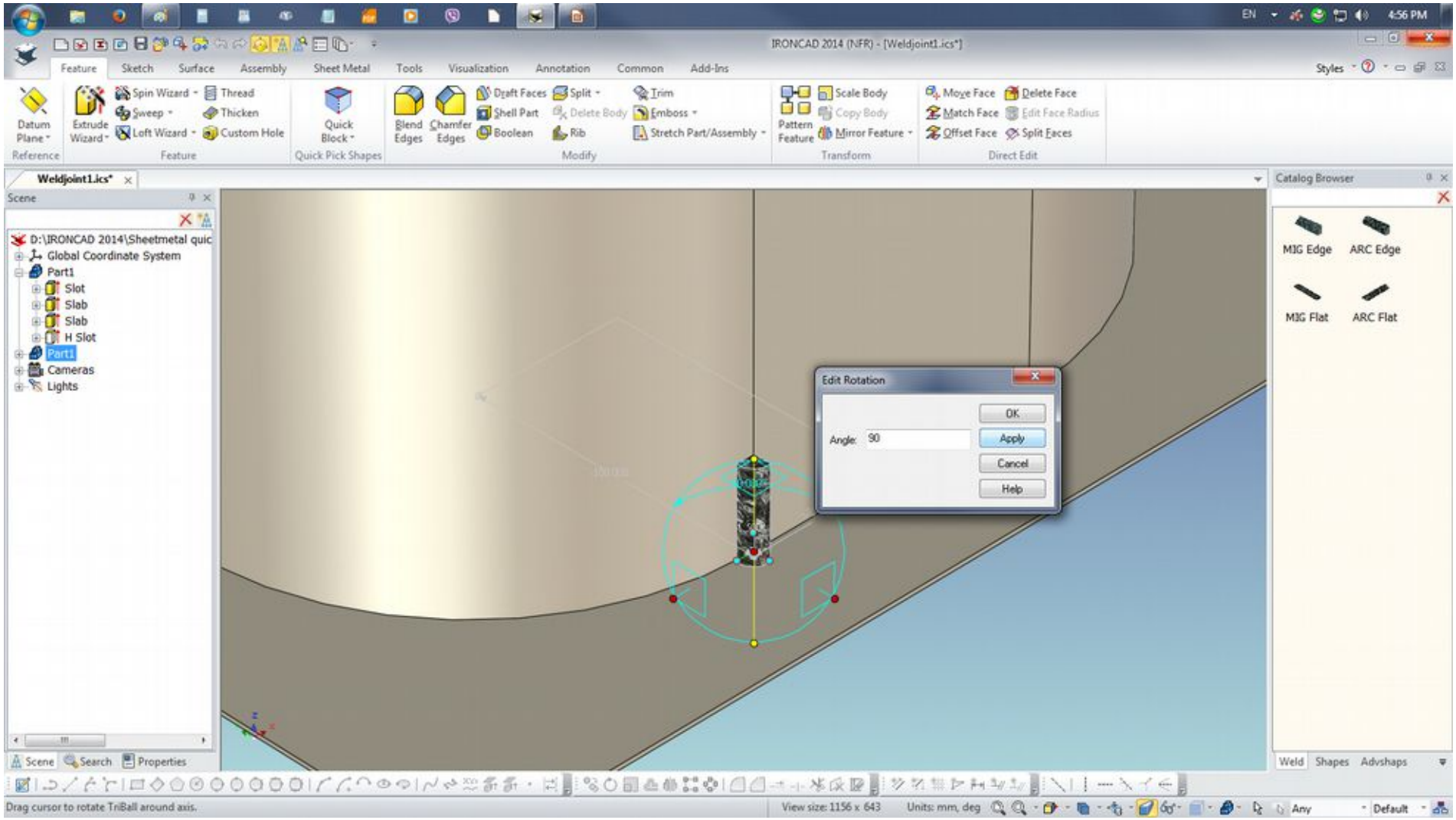
Pertinent files for this tutorial can be downloaded from Tips and Tricks section of Discussion Forums at IRONCAD SUPPORT / USER COMMUNITY and from GrabCAD at grabcad.com/library/cosmetic-welds-1. Load Part1 model file. As reference for this tutorial, File name is Weldjoint1.ics Press key A to switch off Coordinate System and point cursor on lower flange along the vertical facet line of slot.

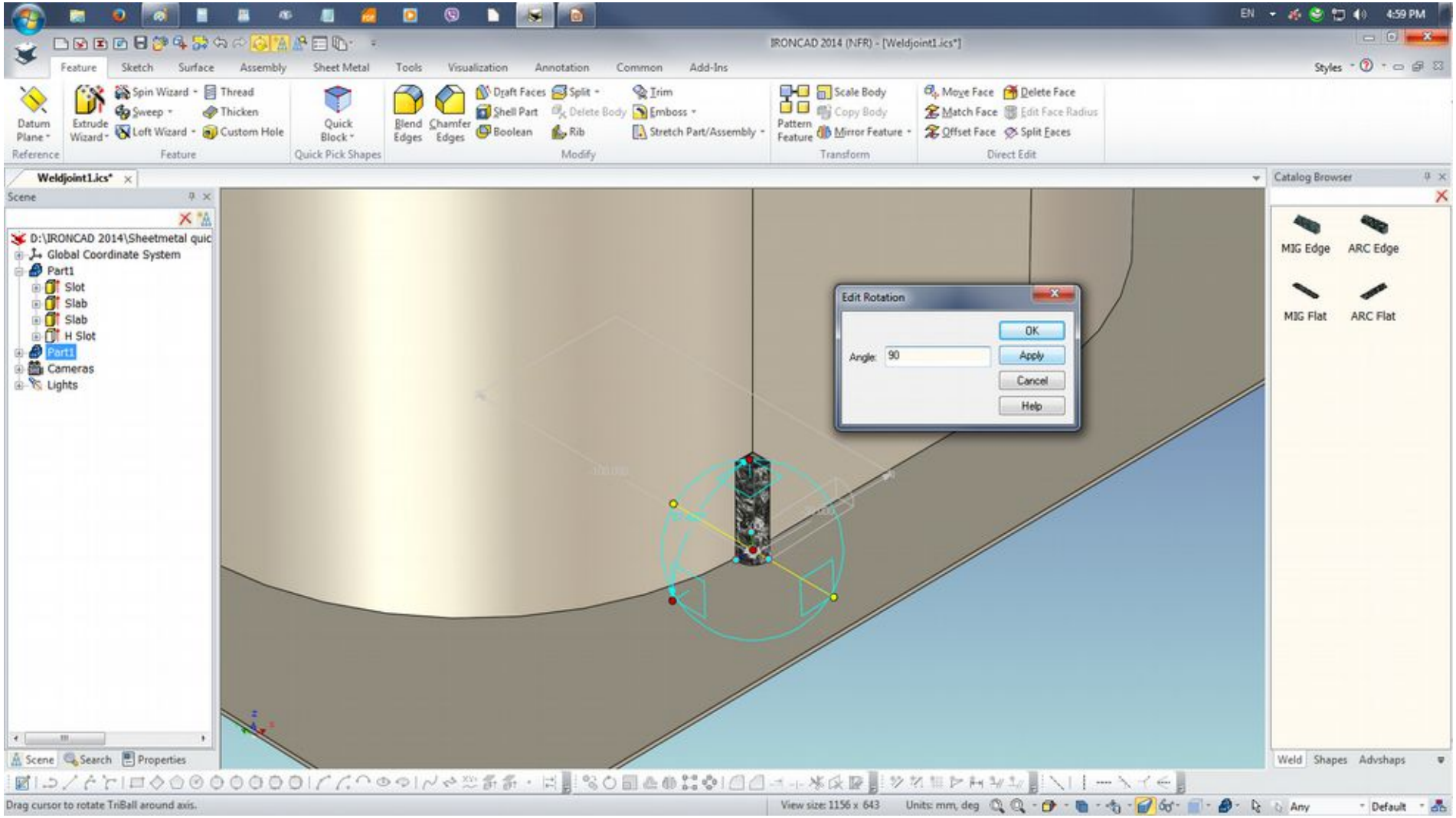


Once you have set the view, LMB select the ARC Edge for the Weld catalog. With the LMB depress , drag the ARC Edge catalog model to point on the flange

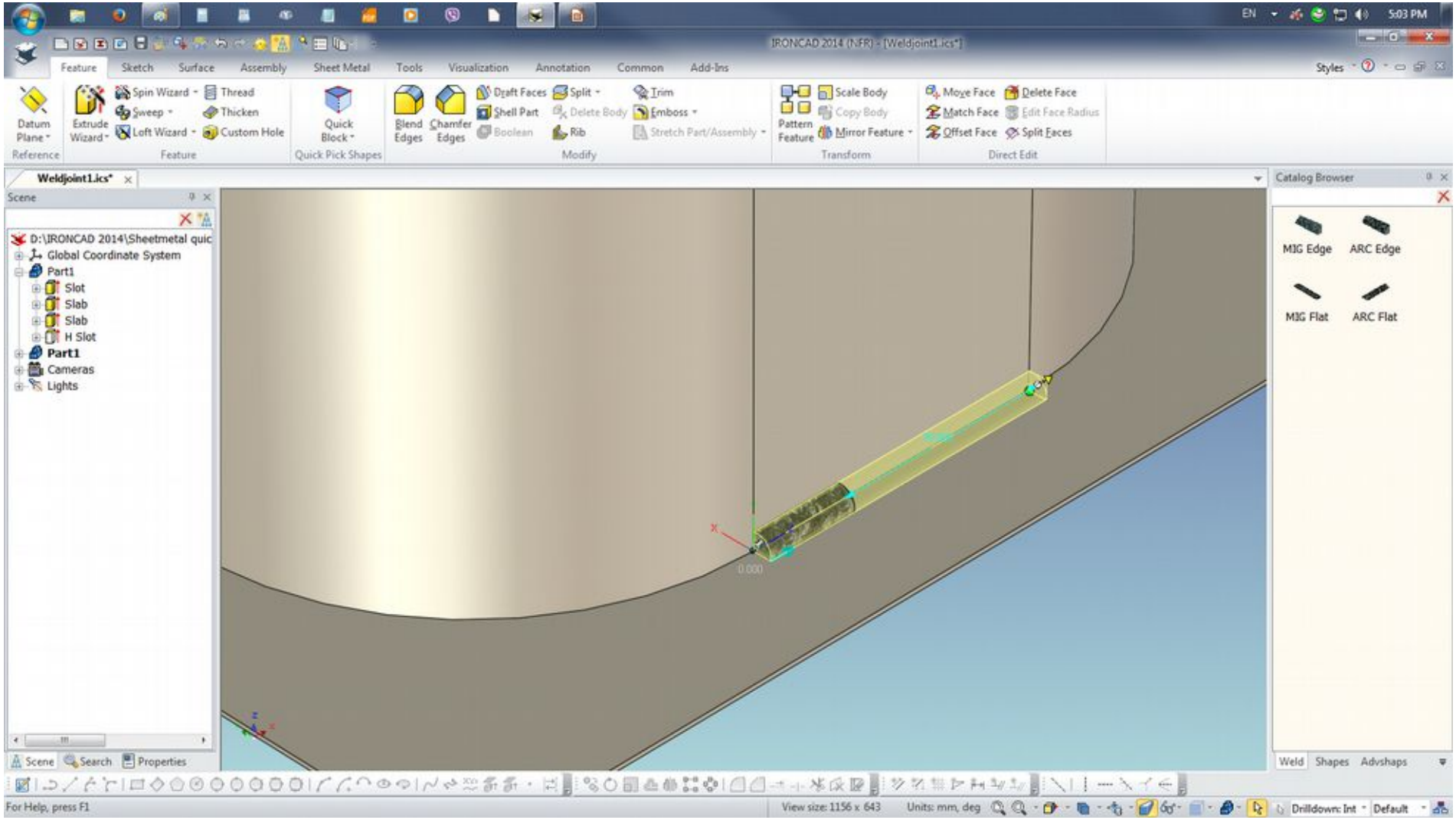


Orient the Weld in position as shown so it will place along the corner of the joint

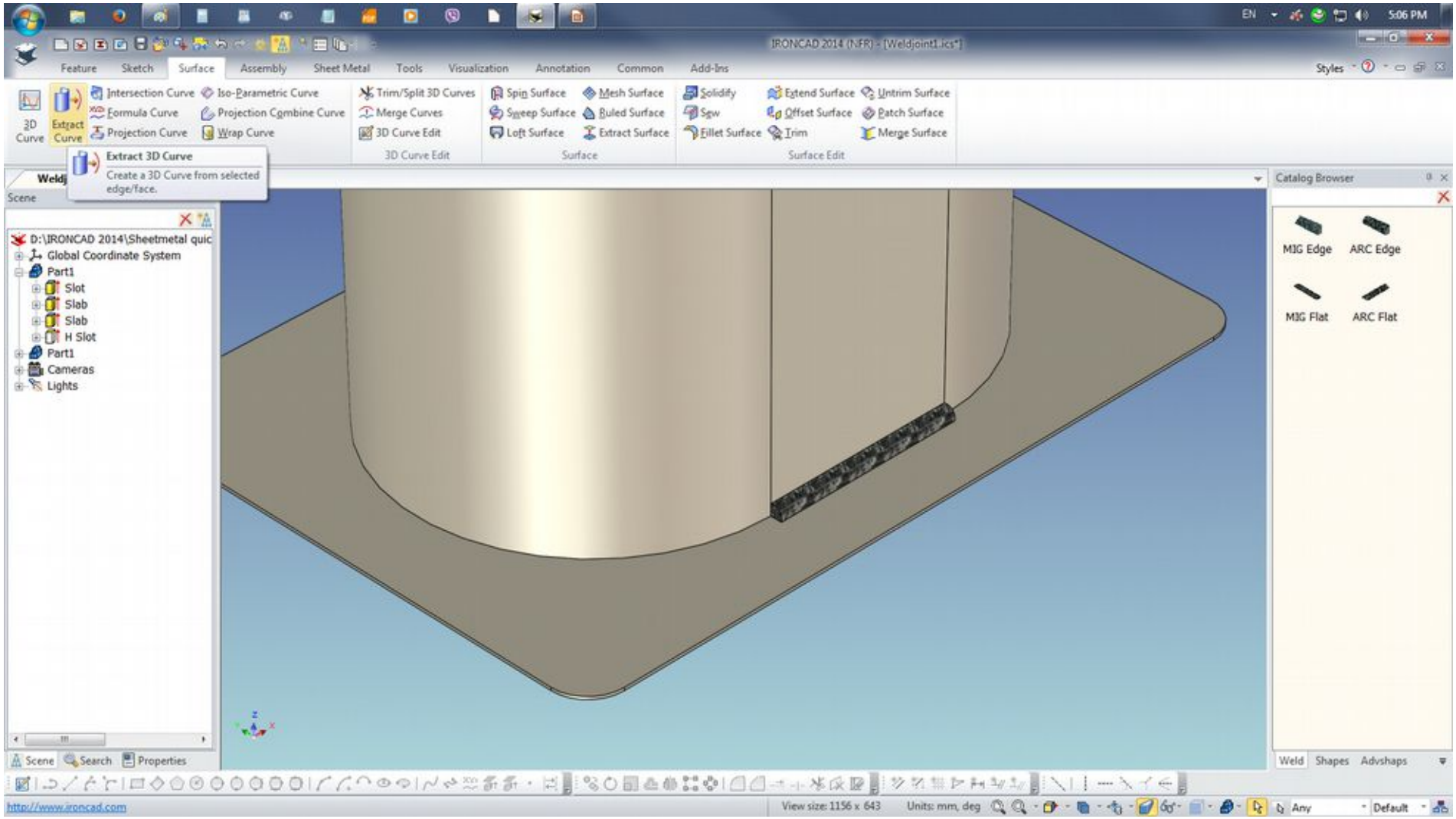



IRONCAD 2014 (NFR) - [Weldjoint1.ics*]
Feature
Sketch
Surface
Assembly
Sheet Metal
Tools
Visualization
Annotation
Common
Add-Ins
Styles
Datum Plane
Extrude Wizard
Spin Wizard
Sweep
Loft Wizard
Thread
Thicken
Custom Hole
Quick Block
Blend Edges
Chamfer Edges
Draft Faces
Shell Part
Boolean
Split
Delete Body
Rib
Trim
Emboss
Stretch Part/Assembly
Pattern Feature
Scale Body
Copy Body
Mirror Feature
Move Face
Match Face
Offset Face
Delete Face
Edit Face Radius
Split Faces
Reference
Feature
Quick Pick Shapes
Modify
Transform
Direct Edit
Weldjoint1.ics*
Scene
D:\IRONCAD 2014\Sheetmetal quic
Global Coordinate System
Part1
Slot
Slab
Slab
H Slot
Part1
Cameras
Lights
Edit Rotation
Angle:
90
OK
Apply
Cancel
Help
Catalog Browser
MIG Edge
ARC Edge
MIG Flat
ARC Flat
Weld
Shapes
Advshapes
Scene
Search
Properties
Drag cursor to rotate TriBall around axis.
View size: 1156 x 643
Units: mm, deg
Any
Default

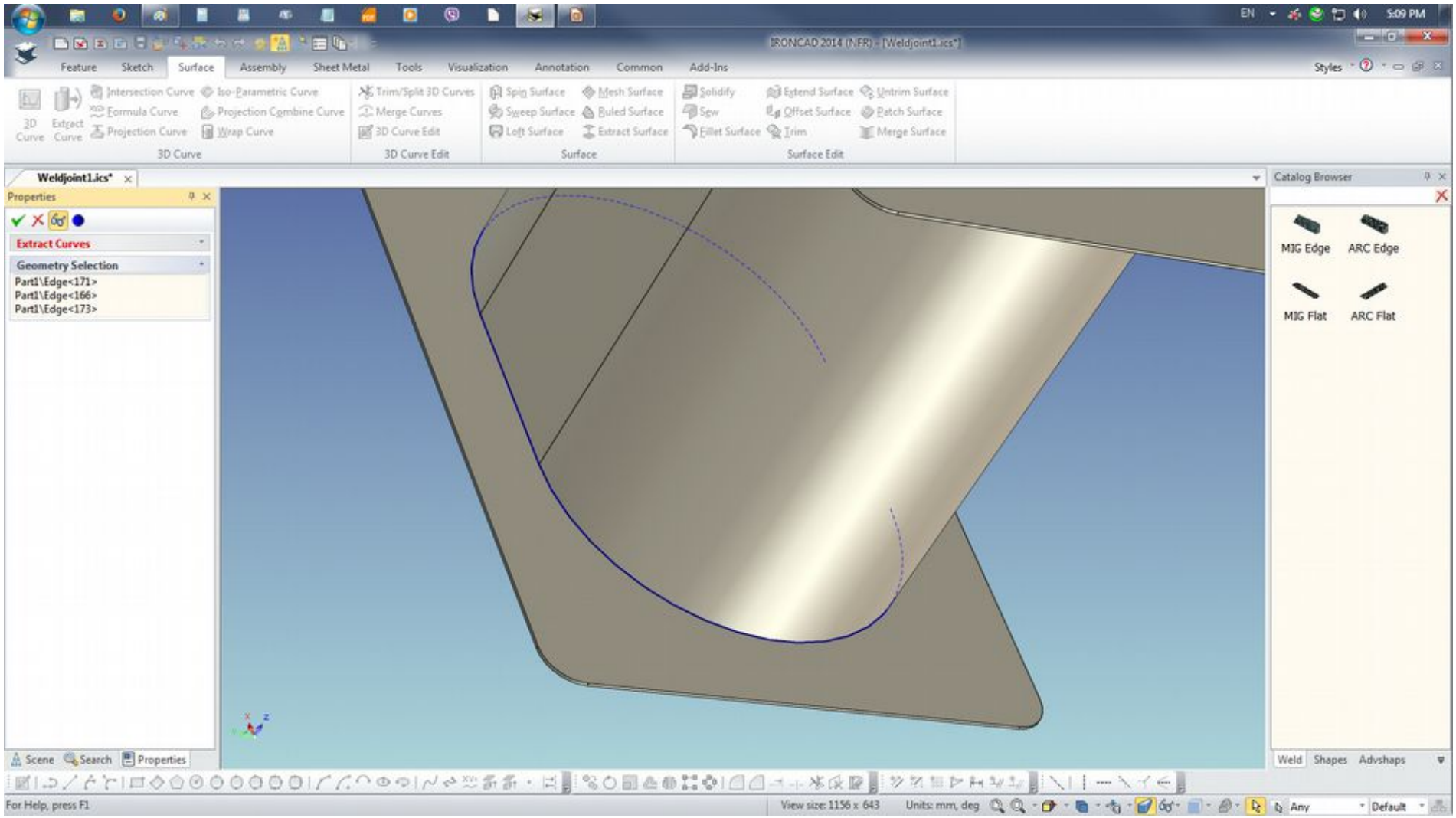
Double click the LMB on the Weld so to set to Intellishape mode. This allows the length(height) to be pulled in position.



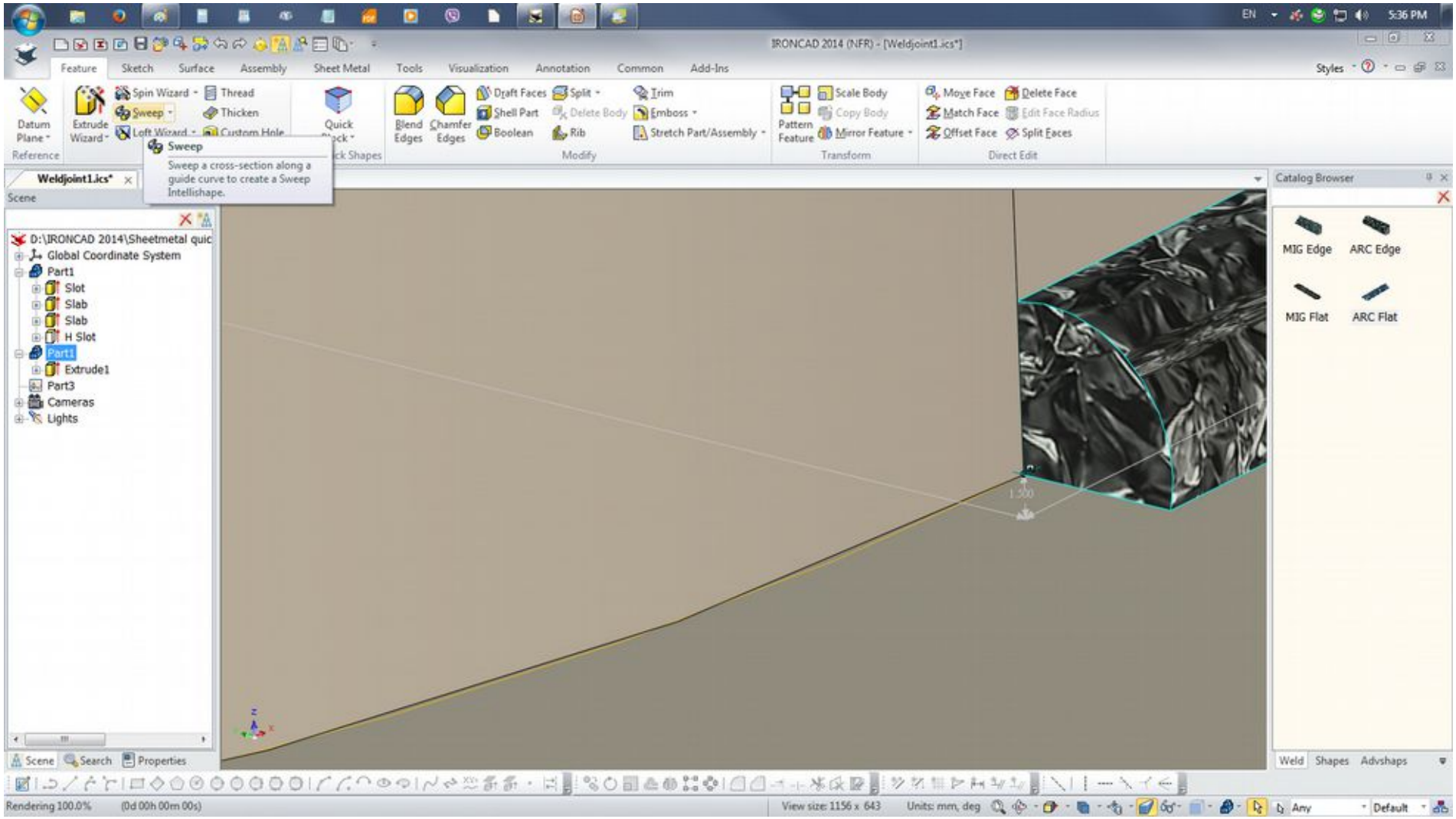
Next we have to Extract 3D Curve from the Surface tab.



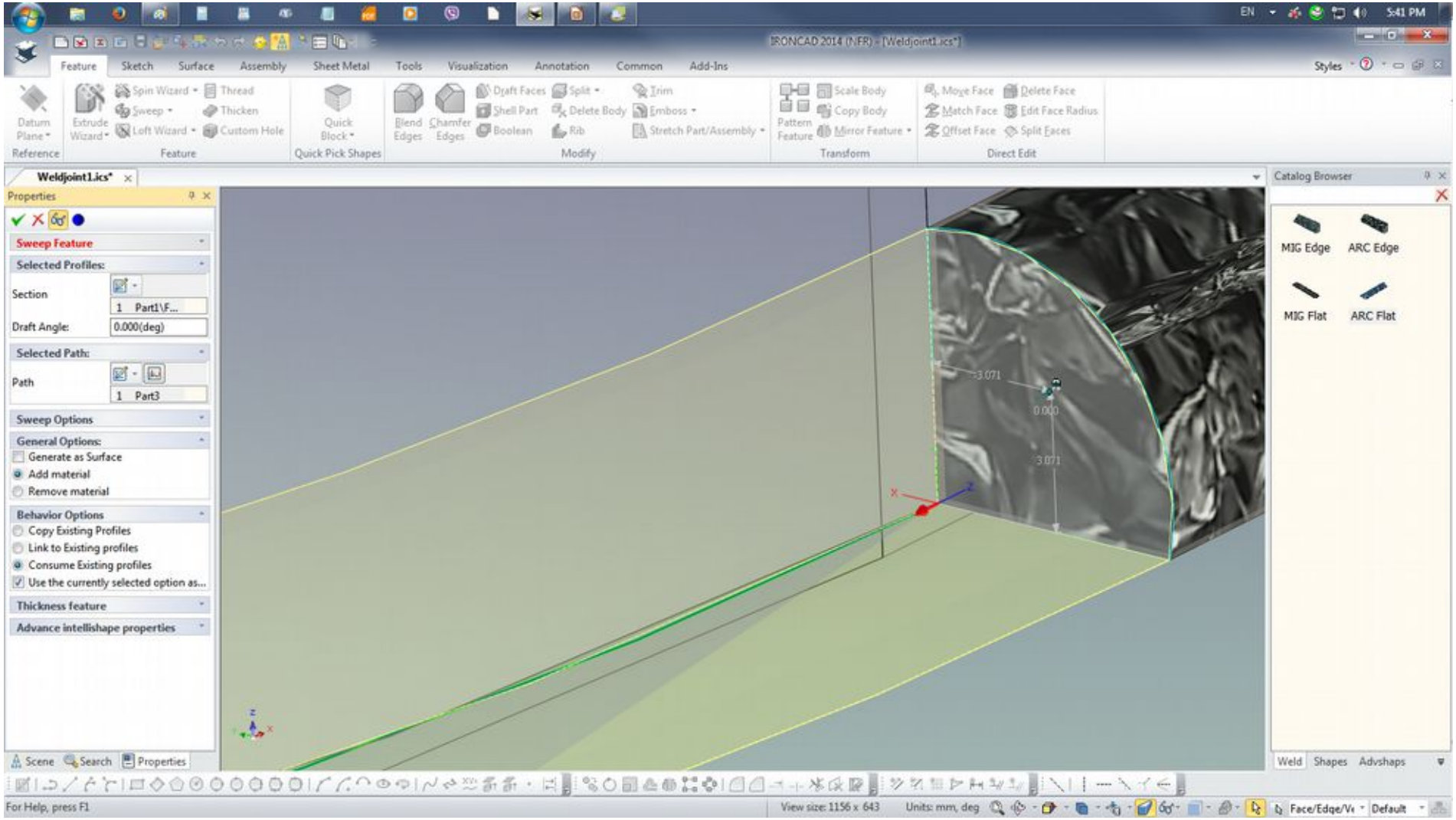
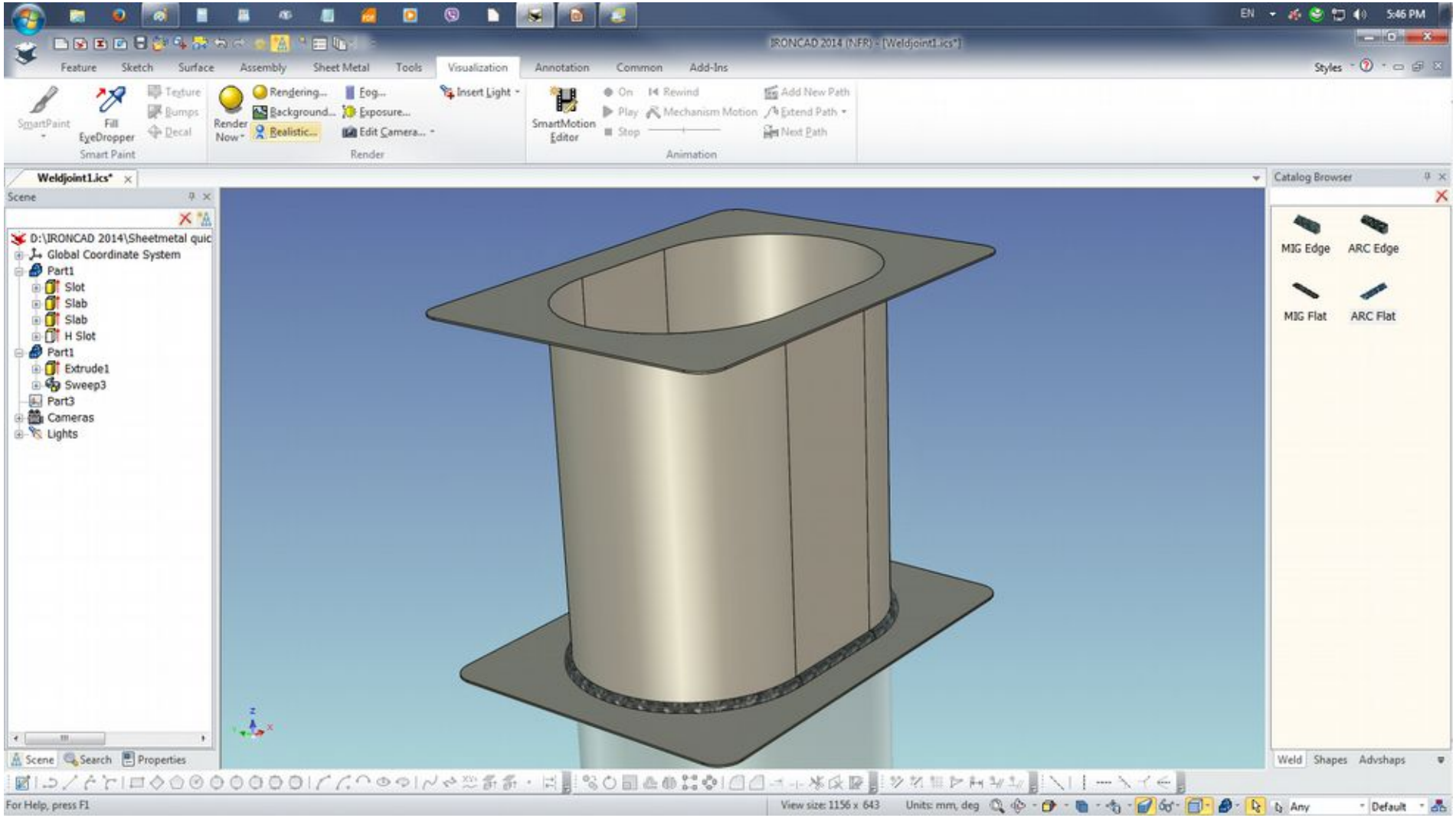
Press and hold the Shift key and select the edges that will b used to create the curve. Orbit (F3) the scene view and select the the edges. On the blue line created from the Geometry Selection on the Properties pane.



On the Scene Browser the 3D Curve line is listed as Part3. On the image below, the orange line is the 3D curve line created to serve as a path for the sweep. Select Sweep from Feature to create the full weld.



Select a point on the scene to zoom using the mouse scroll button. Select the face/section of the Weld and point the cursor on the orange line so it turns green for the path selection. As the preview shows sweep, LMB click on the OK/Check button to execute the sweep creation.



Created full weld.