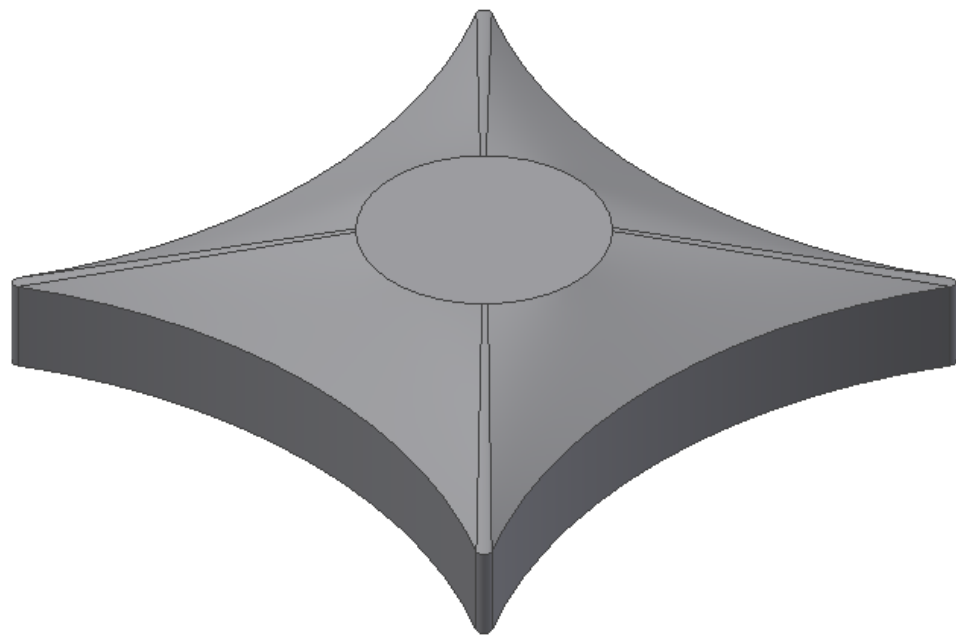
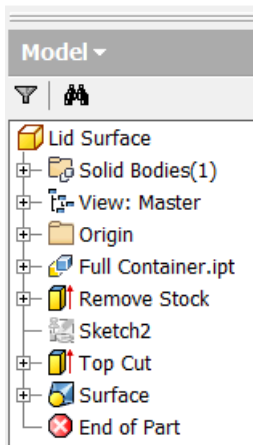
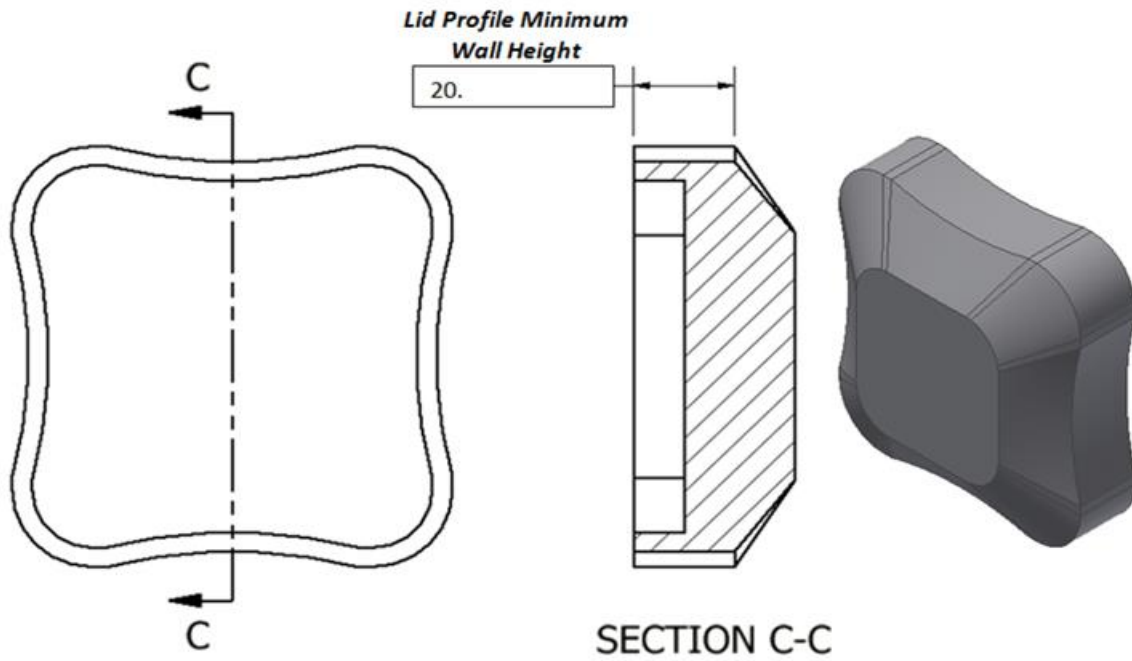
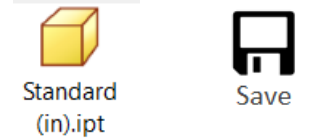
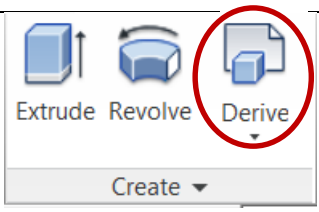
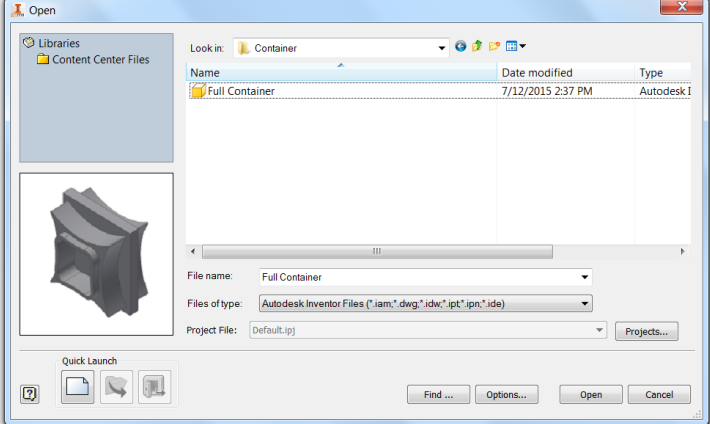
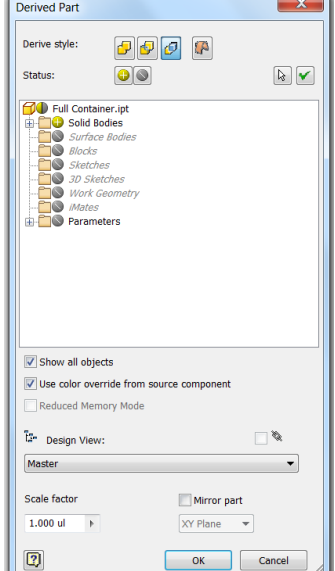
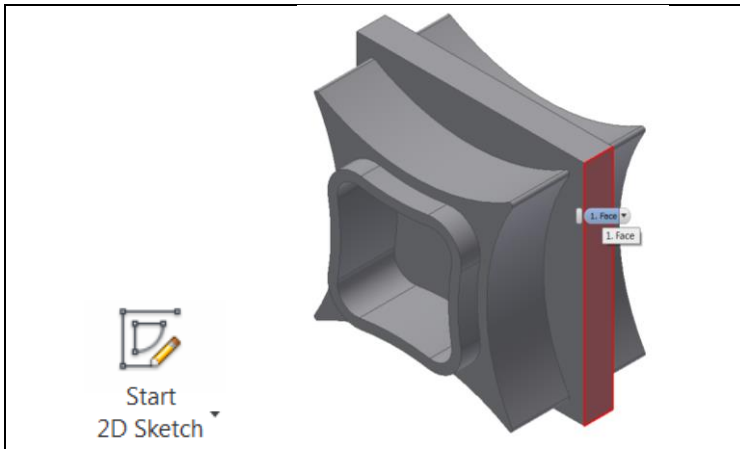


# CNC Container Cheat Sheet

## Lid Surface Layout and Design



 <p>Standard (in).ipt      Save</p>	<p>Start a new Standard Part File (.ipt)</p> <p>Save the file as “LastName_Lid_Surface”</p>
 <p>Extrude   Revolve   <b>Derive</b></p> <p>Create ▼</p>	<p>Select DERIVE from the top ribbon</p> <p>Derive will allow us to parametrically borrow the 3D geometry from the Full_Container to create our lid surface features</p>
 <p>Open dialog box showing the file selection process. The 'Full Container' file is selected in the file list. The file name is 'Full Container' and the file type is 'Autodesk Inventor Files (*.iam;*.dwg;*.ipt;*.ipn;*.ide)'.</p>	<p>Navigate to the folder containing the Full Container</p> <p>Select and Open LastName_Full_Container</p>
 <p>Derived Part dialog box showing the 'Full Container.ipt' file selected in the tree view. The 'Show all objects' and 'Use color override from source component' checkboxes are checked. The 'Design View' is set to 'Master' and the 'Scale factor' is 1.000 ul.</p>	<p>Select OK to the pop up window</p>

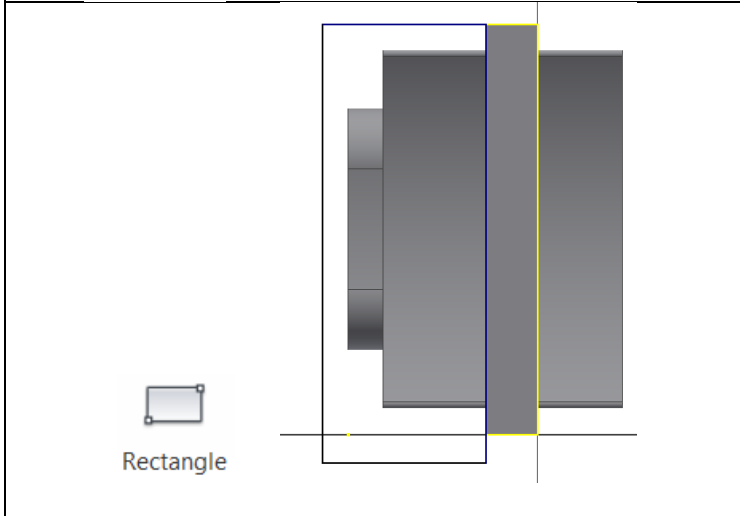


Place a new 2D SKETCH on the side surface of the **Clamping Boss**

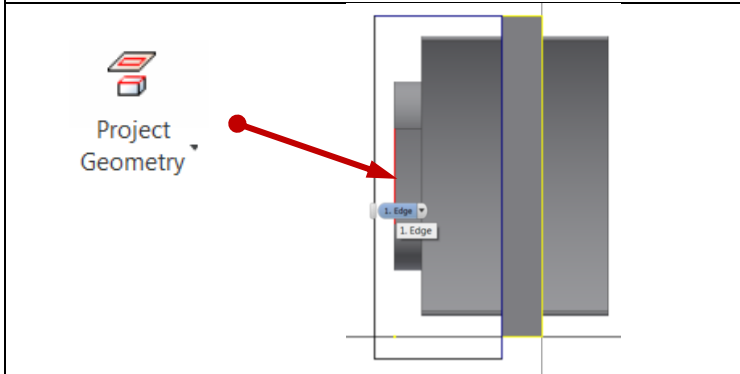


Project Geometry

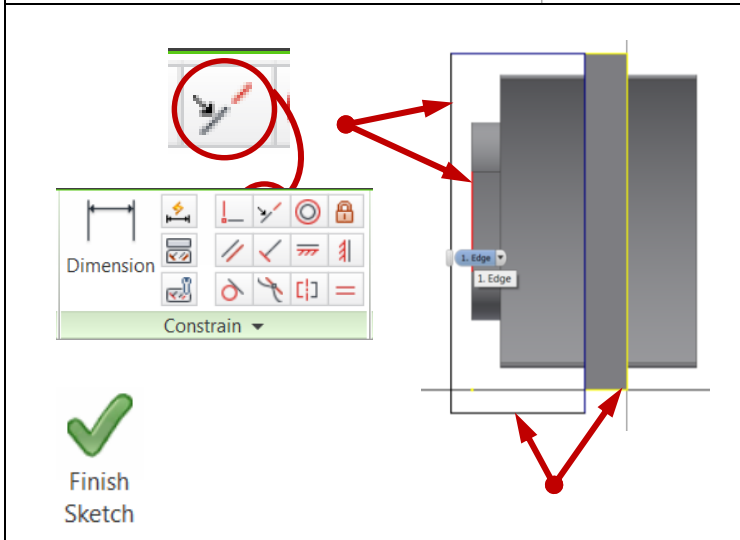
If auto project edges is not on by default (you get yellow edges every time a new sketch is created), please project the geometry of the top surface



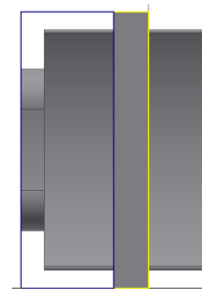
Create a TWO-POINT-RECTANGLE that encompasses all of the features from the container base



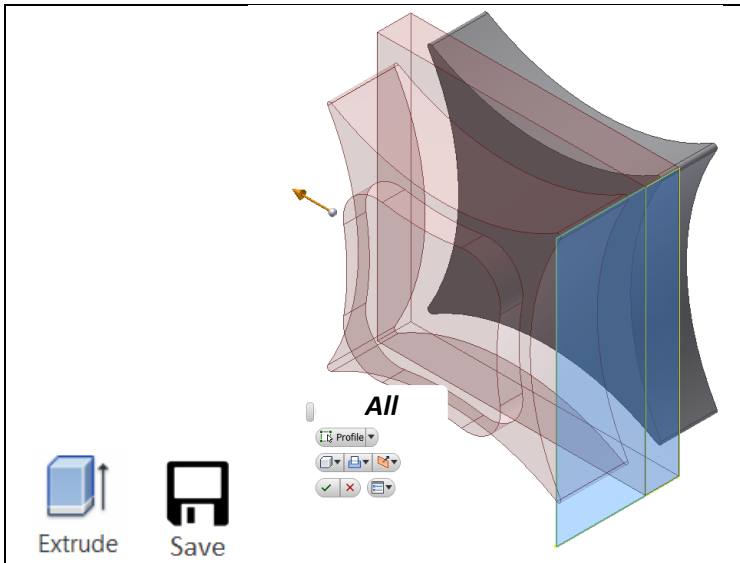
Project Geometry for the top edge of the Container Base



Use the COLINEAR tool to constrain the TWO-POINT-RECTANGLE to the box design



FINISH SKETCH



EXTRUDE CUT both the CLAMPING BOSS and the TWO-POINT\_RECTANGLE All the way through the stock to reveal the lid surface

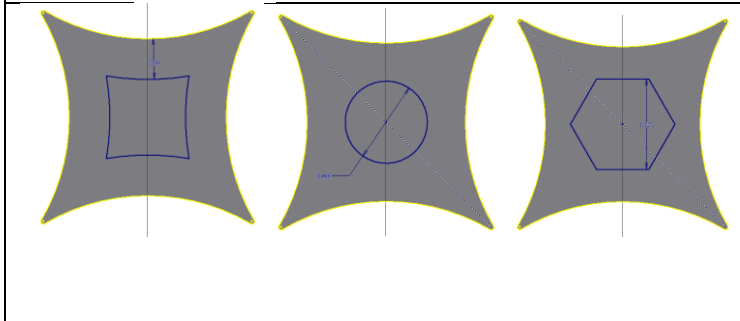
- Set an extrusion
  - ALL



Place a new 2D SKETCH on the top surface of the Lid



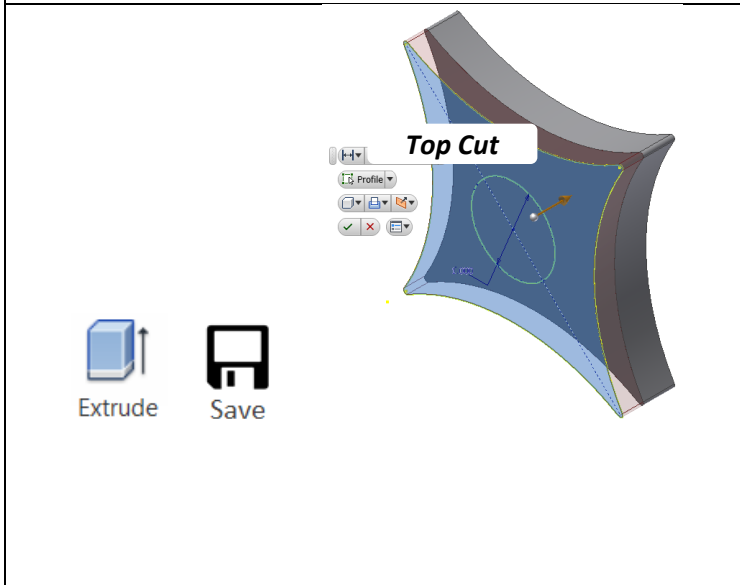
Project Geometry If auto project edges is not on by default (you get yellow edges every time a new sketch is created), please project the geometry of the top surface



Find the center of the part and create a design



Finish Sketch



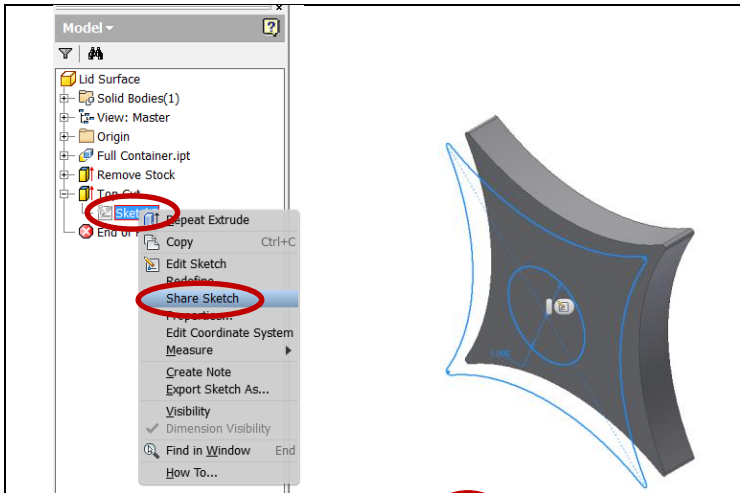
Select BOTH profiles to cut  
EXTRUDE CUT the rough stock into the part

- Set the top extrusion to
  - #12 - #20 \_\_\_\_\_

Example:

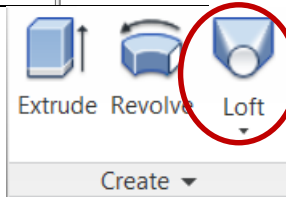
- #12 = 0.625"
- #20 Minimum Wall Height = 0.375"
- Extrusion = 0.625" – 0.375" = 0.25"



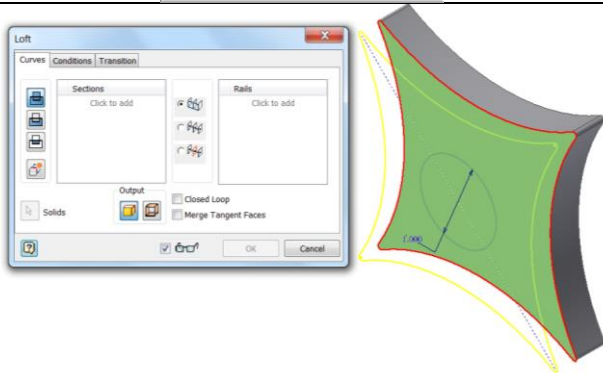


From the browser bar, open the 2<sup>nd</sup> Extrusion, right click on the sketch, and select SHARE SKETCH

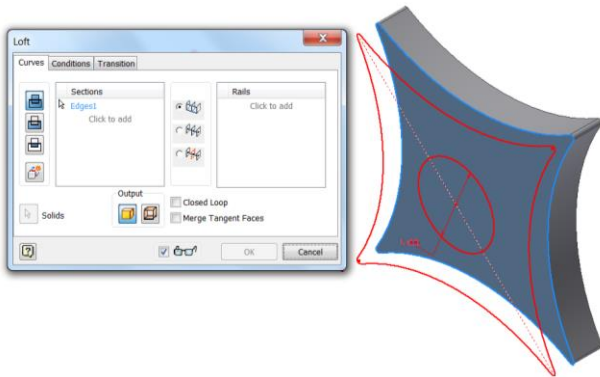
This will allow us to LOFT back up to the finished height



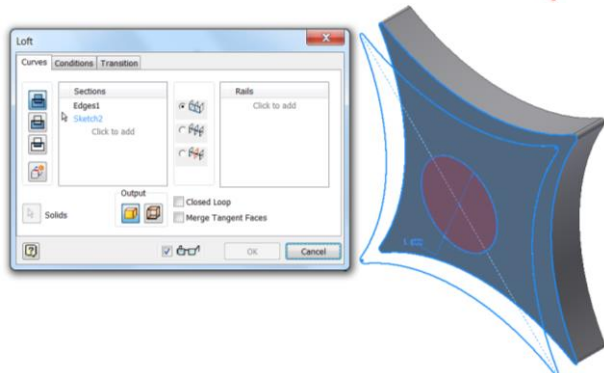
Select LOFT



For the 1<sup>st</sup> selection, choose the top surface of the part



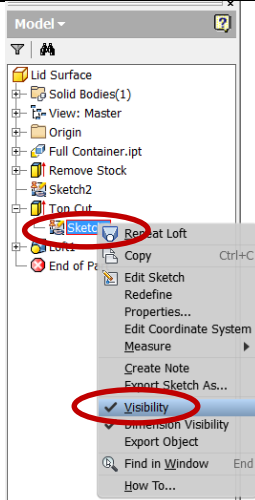
For the 2<sup>nd</sup> selection, choose the shared sketch



Since the SHARED SKETCH contains 2 separate closed loops, we need a 3<sup>rd</sup> selection

For the 3<sup>rd</sup> selection, choose the shape you placed in the center

Select OK



Turn the visibility of the SHARED SKETCH off

Right click on the SHARED SKETCH in the browser bar and select VISIBILITY



Save

**THIS COMPLETES THE CONTAINER SURFACE**



Save

