

Using the Carvey

- Login to <http://easel.inventables.com/> (Create an account if necessary)
- Start New Project in the left toolbar
- Measure the length and width of your workpiece to within .25" (the piece must be less than 12x8")
- Measure the thickness of the workpiece at multiple locations with calipers to within .01"
- Enter the dimensions of the workpiece in the "Material Dimensions" fields in Easel, with the thickness field .02" smaller than the actual thickness.
- Input the Material type, and choose an appropriate bit type and size (toolpaths the Carvey is unable to cut [potentially due to bit size] will appear in orange on the right side of the screen)
- Import your file from Creo as described below, or use the built-in tools to make a design
- Move the design to the center of the workpiece on the left side of the screen, being sure to stay away from edges where clamps (including the smart clamp) will be used
- Turn on and plug in the Carvey to your computer, then click Carve
- Follow the on-screen prompts to double check the material type and thickness, and mount the workpiece
- Use the color screws (blue, red, or green) suggested to clamp the workpiece with the smart clamp and the shortest clamping bars that will cover at least a 1/4" of the edge of the workpiece when the screws are inserted to the mounting holes in the wasteboard
- Make sure nothing sticks off the waste board - especially the clamping bars. These will cause the homing sequence to fail and the Carvey not to cut your part.
- Double check your choice of milling bit, and secure the bit in the collet using the two wrenches in the Inventables box. Make sure the bit is fully seated in the collet and shaft, then rotate the shaft by hand to make sure the bit does not wobble.
- When you're ready, close the door and click Carve.

From Creo to Carvey:

- Open your part in Creo
- File -> New -> Drawing. Name your drawing logically
- Make sure default model is the .PRT file of your part
 - Specify Template: Empty
 - Landscape
 - Standard Size: A (if your part just barely fits in the Carvey build area, use B)
- Model Views -> Click General Views, Ok, and click in the middle of the screen
- Under View Type, choose the Model view name that shows the side of your part you want to mill. Click Apply to see the change.
- Under Scale, choose Custom scale, and set to be 1.
- Under View Display, change Display Style to be No Hidden
- Click Apply, then exit out of the menu
- Click the "Scale" text on the model, and delete.
- Under the Document ribbon, click Sheet Setup, and uncheck "Show format"
- In the Datum Display Filters tab, uncheck all displays to remove the planes, axes, etc.
- File Save. Also, File -> Save as a Copy - save s type .dxf, Ok

- Open Inkscape program, click file -> Open, open your .dxf file
 - If you designed your part in inches, then choose manual scale factor of 25.4 (to convert to mm for Inkscape). Choose ok.
- Click and drag to select the whole object. Use Path -> Combine (Ctrl+K)
- Select the Edit paths by node tool (F2) and click and drag around everything again, then click the Join selected nodes button. This may take some time if there are many nodes (ie, complex curves), so be patient and don't keep clicking the button.
- Click File -> Save as, and make sure the file type is .SVG.
- Login to the Easel software by navigating to <http://easel.inventables.com/> in a browser
- Start a New project, then Import -> SVG, and choose your svg file.
- Select Outline, then Outside to make sure the final dimensions are accurate