

# Inkscape

- [Design Tips for Manufacturing](#)
- [Inkscape Software Guide](#)
- [Notes](#)

# Design Tips for Manufacturing

- Use Hairline stroke thickness when designing a file to be cut.
- To ensure the CAM process properly loads the completed design, always convert all objects to paths at the end of your design.
- It's easy to convert objects to paths, but not paths to objects - complete object transformations before converting to paths.
- Use Align and Distribute tools to save time patterning repeating shapes
- Shape builder can shortcut multiple boolean operations when constructing a complex shape from simple geometries.

# Inkscape Software Guide

Inkscape is software for creating and editing vector graphics:

<https://inkscape.org/>

Inkscape is a valuable tool that's useful in many parts of the shop.

A common use of Inkscape is to prepare art for import into the software that drives various tools around the shop. Protohaven members use Inkscape to create and edit designs for use with:

- Large Format Laser (LightBurn)
- CNC Embroidery (Artistic Designer)
- Vinyl Cutter (Sure Cuts A-Lot)
- CNC Router (Vcarve)
- CNC Plasma (Sheet Cam)

Inkscape can be used to prepare art for the Large Format Printer.

Inkscape is also a good general purpose tool for creating visuals: drawings, infographics, logos, title blocks, icons.

## Download

Inkscape is freely available to download and use for Linux, Windows, and MacOS:

<https://inkscape.org/release/>

## Help and Tutorials

### Manual

The Inkscape project maintains a comprehensive manual:

<https://inkscape-manuals.readthedocs.io/en/latest/index.html>

The manual is updated regularly, and available for both online (HTML) and offline (PDF, ePub) reading.

# Video

A short tutorial to get started with Inkscape:

- Inkscape Tutorial: Complete Starter Guide for New Users (with chapters)  
<https://www.youtube.com/watch?v=fzk-suGcqrc>

A comprehensive tutorial series for Inkscape is available from TJ Free:

<https://www.youtube.com/playlist?list=PLqazFFzUAPc5IOQwDoZ4Dw2YSXtO7IWNv>

Some videos from the series that are good places to start:

- Inkscape Lesson 1 - Interface and Basic Drawing  
<https://www.youtube.com/watch?v=8f011wdiW7g>
- Inkscape Lesson 10 - Trace Images with Bezier Tool  
[https://www.youtube.com/watch?v=sagrkdmc\\_BI](https://www.youtube.com/watch?v=sagrkdmc_BI)
- Inkscape Lesson 11 - Trace Bitmap Tool (Convert Raster to SVG)  
<https://www.youtube.com/watch?v=E7HwLTQu2FI>

# Notes

- The status line at the bottom of the window gives you information about highlighted objects
- Use the object dimensions area to view or set the dimensions of an object; use the lock to constrain the proportions.
- Use trace bitmap to get a vector outline of a raster image.