# Glowforge Customer Knowledge Base - 2D Vector Programs

Click on the Links below (pop-up arrows) to be taken to the tutorial

## 2D Vector Programs

| Glowforge Specific | Adobe Illustrator | Inkscape | CorelDRAW | Affinity Designer | Vector Magic | Super Vectorizer2 |
|---|---|---|---|---|---|---|
| **Read this one First if you are new to lasers.**    Laser Design Basics. | Laser Design Basics | Laser Design Basics | Laser Design Basics | Laser Design Basics | Laser Design Basics | Laser Design Basics |
| **Yep.Good idea.**  Glowforge Interface-Tips & Tricks for using the App. | App Tricks | App Tricks | App Tricks | App Tricks | App Tricks | App Tricks |
| **Read this one too.**          Glowforge Interface - Vectors Made Easy. | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI |
| **This one.**  Glowforge Interface -  Save SVG files for use in the GFUI. | AI_Save_SVG | Ink_Save_SVG | CD_Save_SVG | AD_Save_SVG | | |
| **Yep!**  Glowforge Interface - Perfect Alignment. (Double Sided Engraves.) | Vector Alignment | Vector Alignment | Vector Alignment | Vector Alignment | Vector Alignment | Vector Alignment |

| Basic Concepts Quick Reference | Adobe Illustrator | Inkscape | CorelDRAW | Affinity Designer | Vector Magic | Super Vectorizer2 |
|---|---|---|---|---|---|---|
| Overview Series Tutorials | Ponoko GIF training | Ink_Video Training | Doug Green Austin Series | AD_Official Guides (series) | | SV2_Macs_Overview |
| Toolbars Overview | AI_Toolbars | Ink_Tools | CD_Overview | AD_for Beginners (series) | | |
| Workspace Setup | AI_Workspace | Ink_Workspace | | AD_Introduction | | |
| Workspace Setup (video format) (chris1) | AI_Workspace_Vid | | | | | |
| Smart Guides Snap to Point | AI_Smart Guides | Ink_Workspace | | | | |
| Snapping Tools in Inkscape (petej) | | Inkscape Snap Tamed | | | | |
| Selection Tool Basics | AI_Selection | Ink_Selection | CD_Selection | AD_Selection | | |
| Grouping and Ungrouping | AI_Group | Ink_Group | CD_Group | | | |
| Copy, Paste, Undo, Redo | AI_Copy | Ink_Copy | CD_Copy | | | |
| Setting Stroke and Fill Colors | AI_Stroke Color | Ink_Stroke Color | | | | |
| Working with Layers | AI_Layers | Ink_Layers | CD_Layers | | | |
| Align and Distribute Objects | AI_Align | Ink_Align | CD-Align | | | |
| Rotating Objects | AI_Rotate | Ink_Rotate | CD_Rotate | | | |
| Joining Lines | AI_Join Lines | - | | | | |
| Basic Text | AI_Basic Text | - | | | | |
| Turning Text into a Path | AI_Text into Path | Text to Outlines | | | | |
| Circular Text | AI_Circular Text | Ink_Circular Text | CD_Text into Curves | | | |
| Text on a Path | AI_Circular Text | Ink_Text on a Path | | | | |
| Merge Text | AI_Merge Text | Ink_Merge Text | | | | |
| Clipping Masks | AI_Clipping Masks | | | | | |
| Drawing with the Shape Tools | AI_Shape Tools | Ink_Shape Tools | | AD_Shapes & Curves | | |
| Drawing with the Line Tools | AI_Line Tools | Ink_Line Tools | | | | |
| Drawing with the Pen (Bezier) Tool | AI_Pen Tool | Ink_Bezier Pen | | AD_Shapes & Curves | | |
| Bezier Pen Tool | Bezier Curves | Ink_Bezier | | | | |
| Basic Pen Tool Exercises | Basic Pen Tool | | | | | |
| Editing Nodes, Paths, Bezier Pen. | Adjusting Curves | Edit Nodes | | AD_Shapes & Curves | | |
| Transforming Objects.  Size, Shape, Placement, Rotation. | AI_Transform | Ink_Transform | | | | |
| Expanding Appearance of Objects and Strokes. Convert to Paths. | AI_Expand | Ink_Convert to Path | | | | |
| Determine the Angle of a Line Segment. | AI_Angle | | | | | |
| Creating an Offset Path. | AI_Offset Path | Ink_Offset Path | | | | |
| Creating a Compound Path. | AI_Compound | Ink_Path Menu | | | | |
| Merging Objects, Subtracting Objects, Trim, Difference, Outline. | AI_Pathfinder | Ink_Path Menu | CD_Trim Part1 | | | |
| Trim in CorelDRAW | | | CD Trim Part 2 | | | |
| Creating Island Engraves:  Subtracting Top Objects from Base Objects | | Ink_Subtracting | | | | |
| | | | | | | |
| Weld vs. Combine in CorelDRAW | | | CD_Combine vs. Weld | | | |
| Inkscape Path Menu Demo | | Ink - Path Functions | | | | |
| Auto Trace. | AI_AutoTrace | Ink_Auto Trace | CD Auto-Trace | AD does not have AutoTrace | VM_AutoTrace | |
| Auto-Trace Ceate Cutlines from B&W graphics in Illustrator (canton) | Cut Lines from Graphics | Ink_Advance Auto Trace | | | | |
| Auto Trace. | | Trace Bitmap_Ink | | | | |
| Shape Builder Tool in Illustrator. | AI_shapebuilder | | | | | |
| Shape builder, Recolor, Live Paint in Illustrator. | AI_shape builder_recolor | | | | | |
| "Coloring Book" Effect Demo | Avoid Double Cut Lines | Eight Cats | | | | |
| Creating a Lattice shape in Inkscape. | | Lattice | | | | |
| Recolor Artwork. (chris1) | AI_Recolor | | | | | |
| Fixing Glitches (chris1) | Fix Glitch | | | | | |
| Removing Clip Masks (chris1) | AI clip mask | | | | | |
| Tutorial on Usng Inkscape for the Glowforge (wing) | | Creating a File in Inkscape | | | | |
| Fix a Winding Rule Issue in Affinity Designer & CorelDraw (tim1724) (kennyb) | | | CD_Winding Rule | AD_Winding Rule | | |
| How to get a Centerline Trace | AI_Centerline_Trace | Ink_Centerline | CD_Centerline | | | |
| Finding Open Paths | Find Open Paths | | | | | |
| Creating Fillets in Inkscape (markevans36301) | | Fillets_Ink | | | | |

| Design Tutorials | Adobe Illustrator | Inkscape | CorelDRAW | Affinity Designer | Vector Magic | Super Vectorizer2 |
|---|---|---|---|---|---|---|
| Pattern Creation in Illustrator for Engraving Deep Textures. | Pattern Creation in Illustrator for Deep Etching Textures | | | | | |
| Using Artboards in Illustrator to create a Pattern that overlaps Tiles. | Artboard Tiling | | | | | |
| Voronoi Pencil holder in Inkscape. | | Voronoi Pencil | | | | |
| Design a Voronoi Medallion. | | Voronoi_Ink | | | | |
| Rotational Art in CorelDRAW. | | | Rotational Artwork_CD | | | |
| Circular Text. | AI_ Circular Text | Ink_Circular Text | CD_Text into Curves | | | |
| Text on a Path. | | Ink_Text on a Path | | | | |
| How to Do a Basic Photo Engrave in the Glowforge. (jules) | | Simple Photo Engrave | | | | |
| Design a Quick Personalized Doorhanger. | DoorHanger_AI | | | | | |
| Laser Cutting With Adobe Illustrator. | Laser Cutting with Adobe Illustrator | | | | | |
| HalfTone Effect. | Illustrator Tutorial: Halftone Effect | | | | | |
| Create Coasters in Illustrator | Coaster Tutorial | | | | | |
| Inlays with Inkscape. | | Ink_Inlay | | | | |
| Creating Elliptical Boxes in Inkscape. | | Ink_Elliptical Box | | | | |
| How to Install the Inkscape Elliptical Box Extension in Windows (jules) | | install_Inkscape_elliptical_box_extension | | | | |
| Inkscape Living Hinge Path Order Extension Mod. | | Modified LH Path | | | | |
| Offsets for Inlay - Inkscape. | | Paths in Inkscape - Offsets for Inlay | | | | |
| Design a Tabbed Box in Inkscape. | | Design a Laser Cut Tabbed Box in Inkscape | | | | |
| Using the Tabbed Box Extension in Inkscape. | | Tabbed Box Extension | | | | |
| | | | | | | |
| Inkscape Tutorial for CNC and Laser. | | Inkscape for CNC and Laser | | | | |
| Create a Stencil Font in Inkscape. | | Stencil Font | | | | |
| Concepts for Depth Map Creation in 2D Design Software. | Depth Map Concepts | Depth Map Concepts | Depth Map Concepts | | | |
| Box Designer | ConnectionLab | ConnectionLab | ConnectionLab | | | |
| Box Designer | Instructables | Instructables | Instructables | | | |
| Box Designer | MakerCase | MakerCase | MakerCase | | | |
| Box Designer | festi_ino | festi_ino | festi_ino | | | |
| Box Designer | BoxDesigner | BoxDesigner | BoxDesigner | | | |
| Box Designer | MakeABox | MakeABox | MakeABox | | | |
| Box Designer (bbum) | | TabbedBoxMaker | | | | |
| Paper Box Template Maker | Paper Box Templates | | | | | |
| How to Create a Multipass Badge. | | Multipass Badge | | | | |
| Mesh Gradients in Inkscape. | | Mesh Gradients | | | | |
| Repeating Patterns in Inkscape. | | Patterns | | | | |
| Developer Extension for Gears in Inkscape. | | Ink_Gears | | | | |
| Handy Online Generators for Everything under the Sun. | Lists of Online Generators | Lists of Online Generators | Lists of Online Generators | | | |
| Create an Engraving Pattern in AI. | AI_Pattern | | | | | |
| Create Scrollsaw Bowls in Inkscape. | | Inkscape Scroll | | | | |
| Create mandalas in AI. | AI_mandala | | | | | |
| Use an iPad to create an SVG file for the laser. | Tablet Workflow | | | | | |
| Fractal Generator in Inkscape. | | Inkscape_fractal | | | | |
| Start to Finish Design in Illustrator.(chris1) | Design in AI | | | | | |
| Silhouette Studio to SVG Converter (ptodd) | Studio 2 SVG | | | | | |
| FlatFab.com (rpratt) | Flat Fab | | | | | |
| Digitize your Signature with AI. (VIP) | Digitize Signature | | | | | |
| Personalize a Pencil (VIP) | Personalized Pencil | | | | | |
| A Different Spiral Bowl (cynd11) | Spiral Bowl | | | | | |
| Make a Table Sign Base (caribis2) | | Table_Sign_Base | | | | |
| Working with Nodes in Inkscape (caribis2) | | Working with Nodes | | | | |
| Trace a Bitmap in Inkscape (gwygonik) | | Trace Bitmap Ink | | | | |
| Finger Joints in Inkscape (evansd2) | | Create Finger Joints | | | | |
| Create a Pattern Brush in Illustrator (jae) | Create a Pattern Brush | | | | | |
| Create a Pattern along a path in Inkscape (mike10) | | Pattern along a path | | | | |
| Planar Butt Joins (evansd2) | | Ink_butt_joins | | | | |
| Create a Pattern along a path in Affinity Designer (tim1724) | | | | Vector pattern in AD | | |
| Designing in Illustrator and other Glowforge Video Tutorials (wenning08) | AI Designing Videos | | | | | |
| Make Ornaments in Illustrator (VIP) | Make Ornaments | | | | | |
| Acrylic Inlay Flowers (pubultrastar) | acrylic inlay flowers | | | | | |
| Some Useful Illustrator Scripts (cynd11) | Useful AI Scripts | | | | | |
| Rasterize multiple images into one bitmap in Inkscape (jules) | | Rasterize multiple Images | | | | |
| Use layers to set up re-usable jig in Inkscape (arh2) | | multiple layer engraves -Inkscape | | | | |
| No waffle guide to inkscape (sqw) | | no_waffles_ink | | | | |
| Shadowbox Tutorial for Inkscape (arh2) | | Shadowbox_Ink | | | | |
| Doing an Illustrator photo Engrave on Bleached Wood (VIP) | Bleached Wood | | | | | |
| Make a Tabbed Box/Tray in Illustrator (jules) | tabbed box in illustrator | | | | | |
| Break up a Large Design in Inkscape (eflyguy) | | break up large design | | | | |

| | Adobe Illustrator | Inkscape | CorelDRAW | Affinity Designer | Vector Magic | Super Vectorizer2 |
|---|---|---|---|---|---|---|
| Flatten an Image in AI to avoid Clip Path errors - (alicialong) | Flatten Image to avoid Clip Paths | | | | | |
| Cutting out Rasters in Affinity Designer (geek2nurse) | | | | Cutting Out Rasters - AD | | |
| | | | | | | |
| | | | | | | |
| **Designing 4 Laser** | **Adobe Illustrator** | **Inkscape** | **CorelDRAW** | **Affinity Designer** | **Vector Magic** | **Super Vectorizer2** |
| Laser Design Basics | Laser Design Basics | Laser Design Basics | Laser Design Basics | Laser Design Basics | | |
| **Glowforge Interface - Vectors Made Easy.** | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI | Vectors 4 GFUI |
| **Glowforge Interface - Save SVG files for use in the GFUI.** | AI_Save_SVG | Ink_Save_SVG | CD_Save_SVG | AD_Save_SVG | | |
| How to Create Dashed Lines for Perforations | AI_Dashed Lines | Ink-Dashed | CD_Dashed Lines | | | |
| Creating a Circular Dashed Line for Perforations | n/a | Ink_Circle Dash | n/a | | | |
| Embedding a Raster Image. | AI_Embed Raster | Ink_Embed Raster | | | | |
| Creating a Compound Path. | AI_Compound | Ink_Path Menu | | | | |
| Avoiding Double Lines in your Designs. | Avoid Double Cut Lines | Avoid Double Cut Lines | Avoid Double Cut Lines | | | |
| Autotrace to create a Vector Path for Cutting. | AI_AutoTrace | Ink_Auto Trace | | | | |
| Adjusting for Kerf in your Design. | AI_Adjust Kerf | Ink_Adjust Kerf | CD_Adjust Kerf | AD_Kerf Adjust | | |
| Improve kerf adjustments in Inkscape (evansd) | | Ink_Improve_Kerf | | | | |
| Jig for Kerf Measurement (bobv) | | Kerf Measurement | | | | |
| Turning text into a Path. | AI_Text into Path | Ink_Convert to Path | CD_Text into Curves | | | |
| Using the Trace feature to create foam inserts for tools. (tom) | | Ink_Trace | n/a | | | |
| How to Remove a Delicate Print from Thick Material | Delicate Print | Delicate Print | Delicate Print | | | |
| Create Support structure for thin rubber stamps using Glow. | | Rubber Stamp Support | | | | |
| How to Optimize the cutting Path in Illustrator. | Optimize Cuts | | | | | |
| Illustrator Actions - Set a 12 x 20 artboard | 12 x 20 artboard | | | | | |
| Python script to convert DXF to SVG in MacOS in Inkscape Command Line. | | DXF to SVG in Inkscape | | | | |
| Make a Name Pendant | Name Pendant in AI | Name pendant in Inkscape | | Name pendant in AD | | |
| Rounded Corners to avoid overburn. (denhe1/tim1724) | Rounding Corners_AI | | | Round Corners AD | | |
| Creating a Vector Outline for cutting in Illustrator/Inkscape. (jbv)/ (yawstring) | AI-Outline Cut | Ink-Cutlines from Fill | | | | |
| Create a Tight Shape Cut Line around a bitmap Engrave | AI-Outline Cut | | | | | |
| Inkscape Cut Outlines (julybighouse) | | Ink-Cut Ouline | | | | |
| Custom Color Palettes for Ordering Operations in the Glowforge Interface. | Color Ordering | Color Ordering | Color Ordering | Color Ordering | | |
| Centerline Tracer | Centerline tracer | | | | | |
| Tracy Online SVG Converter (hansepe) | Tracy | | | | | |
| Silhouette Studio to SVG Online Converter (ptodd) | Studio to SVG converter | | | | | |
| Create a Layered Map in Inkscape (tclear01) | | layered maps | | | | |