



Southborough LibGuide: Dremel Digilab Laser Cutter



What is Laser Cutting?

Thinking about starting a new hobby like jewelry design? Helping out with personalized favors for a celebration? Eager to get started in the Maker world? Laser cutting uses light to cut and engrave images on a variety of materials. Custom bookmarks, pop-up cards, luggage tags, and much, MUCH MORE is possible with paper, cardstock, cork, vinyl, wood and many other toxic-free materials.

Vector vs. Bitmap - a Primer

The Dremel Digilab Laser Cutter uses vector and bitmap images to cut or engrave, respectively. *To learn more about the differences between bitmap and vector images, check out <u>The</u> <u>Printing Collection.</u>*

The Dremel Laser Cutter accepts the following file types:

Vector files used for *cutting through* materials: .SVG.

Bitmap (aka 'raster') images, used for *etching on materials*: .JPG, .PNG

Creating and Editing Vector and Bitmap Files

<u>Inkscape</u> is a free, open-source *vector-drawing* software program; <u>GIMP</u> is a free, open-source software program that *creates bitmap images*. Both software programs are available on the macMini in the Idea Lab as well as on the library's in-house loaner Dell laptops.

Online Tutorials

Dremel Laser Cutter File Setup - Kathryn McElroy

Dremel Instructional Videos: Kathryn McElroy's YouTube Channel

Inkscape for Laser Cutting: Beginner's Tutorial

Free Vector Images

You may download free vector images from the internet (with proper attribution): <u>Vecteezy</u>

You can also try converting your bitmap images to vector images with an online service: <u>Vector Magic</u>

Project Inspiration

From Grey Lightning: <u>40 Projects</u> and <u>Christmas Ornaments</u>

From Maker Design Lab: <u>Wooden Birds</u> and <u>Engraved Notebook Cover</u>

From DIY3DTECH: Laser cutting Google Maps onto coasters

Processing Your Laser Project

Once you've prepped your image file(s), please consult with an Idea Lab staff member to set up the job's requirements, including the materials, time to completion, etc. Lab staff will execute all jobs to ensure patrons' safety.









Share Your Progress

Be sure to take photos and/or short videos and email them to <u>rdonovan@southboroughma.com</u> so we can post them on our Facebook and Twitter pages. Use hashtag #sblibIdeaLab.

CW/MARS Resources



The Maker's Manual

OverDrive Resources

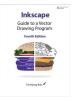


Makers: The New Industrial Revolution





<u>63 Ready-to-Use Maker</u> <u>Projects</u> Laser Cutters and Engravers



Inkscape: Guide to a Vector Drawing Program

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