Equipment Use and Project Preparation

The Nomad 3 desktop CNC mill is free to use for personal projects, and is available to anyone with an Illinois library card registered at the Indian Trails Library. Members are responsible for bringing vector files, images or ideas to carve while staff operate the machine. To use the machine, make an appointment through the Launch Pad page of the ITPLD website (**itpld.org/services/digital-maker-services**). Bring your ideas and any files to your appointment.
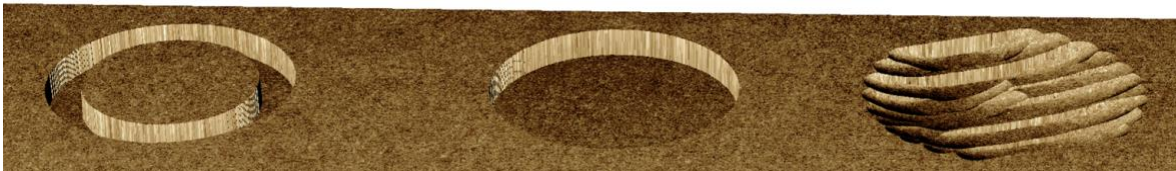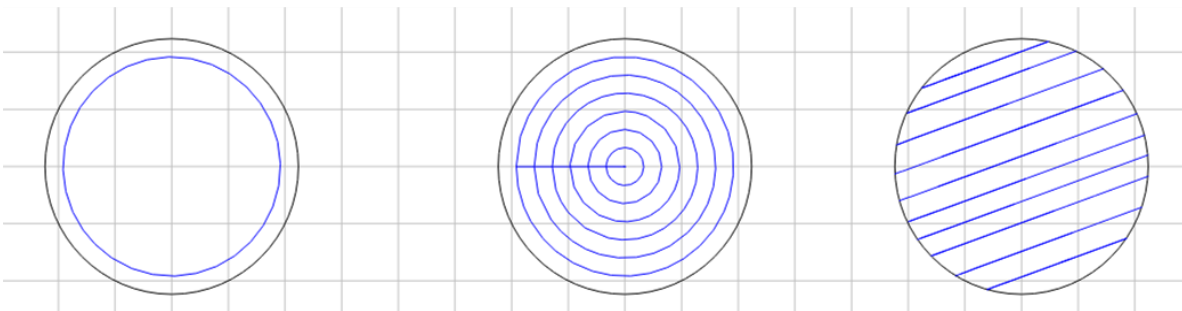
Basics

- Max material size: 8" (height) x 8" (width) x 3" (depth)
- Max carving depth: 0.5"

File Specifics

Carbide Create (available with appointment) is used to create a file with the carving information. It can open **.svg** files or be used to make designs from scratch.
Outlines can be set to one of three different carving options:

- **Contour:** cuts on the line of your vector image.
- **Pocket:** clears everything inside of your vector image.
- **Texture:** creates a textured hole inside of your vector image.

Contour   **Pocket**   **Texture**

Designs that have minimal small details, smooth paths and shallow cuts work best, taking the least amount of time.

To create an .svg you can use Inkscape (**inkscape.org**), is a free software which can be used to create designs in advance. You can also use another vector drawing program such as Adobe Illustrator.

- Set the file dimensions to the exact width and height of the material you plan on using.
- Designs should be clean, optimized, solid outlines of what will be carved.
- No fill color. Anything that will be carved will be set in Carbide Create.
- All text should be converted to outlines/paths to preserve the font.
- Files should be saved as **.svg**

Resources

Cut Rocket (**cutrocket.com**) provides free project file downloads

Materials

- The CNC can cut and engrave all types of wood, most plastics, aluminum, brass and copper.
- Materials should be flat, even and fit within the 8" x 8" x 3" size limit.
- All member-supplied materials must be approved by Launch Pad staff prior to use.
- Email **dmsforms@itpld.org** with specific material information prior to your visit.

Although bringing in your own materials is encouraged, members may choose to use their free weekly supplies with Launch Pad provided materials.

Material	Launch Pad Material
Hardwood block	1" thickness 4" x 4"