General Tips

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Text Engraving

When using text on the laser you will usually be stuck with a large quantity of engraving. For example, if every part of a kit of workshop material that needs to be mass-produced requires text, it will take a lot of time.

After some research I've found that there are a few fonts that are suitable to use. This means that when we convert to outline in illustrator, instead of creating multiple lines (one outer and one inner), it will only create a single line which makes it a lot more convenient.

Here is a link to a list of fonts that work well. Remember to remove any fill before converting!

CamBam Stick Fonts (Scroll down for download link and examples)

These are by no means perfect and most of the fonts have symbols missing. I recommend #4 as it seems to have most of the features.

Also - Inkscape now has built-in support for hershey text - an engraving font generator.

Using lower DPI to speed up Engraving and Cutting

Another way to speed up engraving (and even cutting) is to lower the DPI in the print preferences. Laser regular Paul Morris showed me the results reducing the DPI down from 500 to 125 DPI. Reducing the DPI by 1/4 reduced the engrave time.

Results shown below

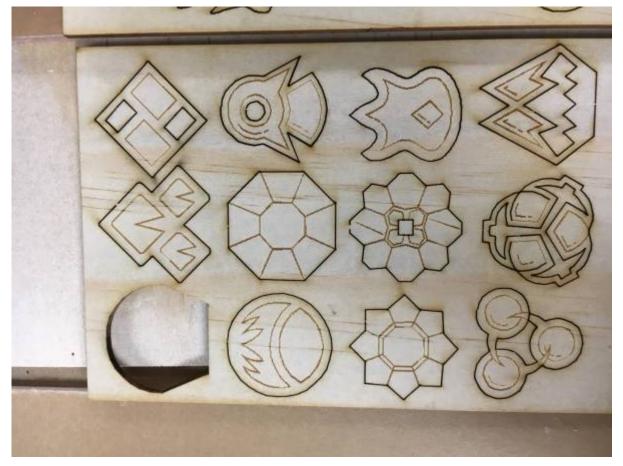
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He also did a low resolution cut, pictured below

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the example on the left is at 500 DPI (default). The example to the right is at 125 DPI

Warped Plywood

While we have had issues with the stock plywood for the laser warping, the last batch we had was off the charts (10mm off true on an A2 piece of plywood). This warpage puts the laser out of focus and participants don't want to pay for it.

This week we experimented with clamping the plywood down with Nylon Nuts and Bolts, pictured below

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We fed the bolts (with a metal spring washer) up through the honeycomb and clamped the timber down with the corner of the nut. When I get around to it I'll make some acrylic washers/ clamps to grab the timber in a more secure way. The timber popped up when it was cut but at least it was cut etched and then flat.