

## NOTOC


<categorytree mode=pages>Laser Cutter (Orange)</categorytree>

## Preface

The Hackspace laser cutter is only to be used by those who have received an induction, however there's lots you need to do before you get anywhere near the actual hardware.

[Book an induction](#) (members only - sorry).

Informational
If the laser cutter does <b>anything</b> out of the ordinary please make sure it's reported to a laser maintainer. If the response is "please put the out of order sign on the cutter" then do that. <b>DO NOT ATTEMPT TO FIX THE CUTTER YOURSELF.</b> If it is clearly not functioning, put the out of order sign on it and then report it. We will fix it as soon as possible.

## Basic Information

- The cutting area is 600 x 400 mm (A2)
- You can cut material up to around 6mm thick
- **Make sure the pump and cooler are running before using the laser!** If you can't hear or feel the vibration of the pump, don't use the cutter.
- Some people (everyone bar Bob) have been having problems with red and black. If you're trying to do something intricate such as engraving we recommend NOT using black ANYWHERE on your design to avoid bits being engraved unnecessarily and wasting your time/money or potentially wrecking your design.

## Getting started

In order to create your first design, you should install one of the following:

- [Inkscape](#) **recommended**
- Adobe Illustrator
- [OpenSCAD](#)

Whatever you're using, it's recommended to install Inkscape as that can be used to tweak designs prior to importing them for cutting or etching.

## Inkscape

### Suggested Page Layout

I like to use a 600mm x 400mm page, set to millimeters, with a 1mm grid. [Media:Laser\\_Template.svg](#)

Is a good template. Just put it in the templates directory in your inkscape folder to use it. (Linux: `.config/inkscape/templates/`)

## Different Cuts / Colours

Each different colour, line thickness, layer and group can be selected to cut differently, and the cut order changed. I normally use solid background colours in my inkscape designs to denote what should be cut and when.

## Visicut

Visicut is used to convert files into the format needed to drive the laser cutter.

Install visicut from <http://hci.rwth-aachen.de/visicut-download>

(If you are using a mac the cross-platform Java implementation works best.)

## Getting the settings

Install git from <http://git-scm.com/>

### Linux / Mac

To get the settings in a terminal type:

```
cd ~ rm -rf .visicut
git clone "%%https://github.com/HACManchester/visicut-settings.git%%" .visicut
```

To get updated settings, either repeat the above, or type:

```
cd ~/.visicut/ git stash git pull origin master git stash apply
```

## Usage

Now start visicut. You should have two dropdowns in the top right hand corner, one to choose the material, and one to choose the thickness. If you are using inkscape or illustrator, in the Tools menu there are options to install the plugin for either. install them, then restart the application to get the laser cutting menu options.

## Status

## Orange Laser Cutter

### status

The date above is the last occasion that we changed the laser status. If it says it's working, even if the date is months ago, it's still working and has been since the date listed.

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