# Workshop Wizard Resources

Workshop Wizards are undergraduate students who maintain the labs, provide training to users, design new tools, and build parts for users. This page serves as a reference for documentation specific to lab employees and should not need to be referenced by general lab users.

## Supplies & Vendors

Purchasing Resources

## Workshop Wizard Handbook

The Weekly Cleaning Guide serves as a general resource for the weekly cleaning and maintenance performed by the Workshop Wizards. This must be completed once a week to insure tools are kept in like new condition and the lab is kept stoked, organized, and clean for all users.

The Workshop Wizard Inventory Checklist should be checked every week and done alongside the weekly cleaning. It lists all frequency used consumables and their suppliers along with the necessary number of each item. Should current inventory fall below the minimum quantity of items, Gateway should be used to purchase new consumables.

Use the Gateway portal to make purchasing procurements and assign carts to lab managers and PI's. Instructions on how to use Gateway for a variety of suppliers can be found here.

#### Training

The Workshop Wizard Training Process Outline provides an overview of the training process for both labs. Please study this before beginning planning for a training.

## Wiki Guide

microfluidics_and_innovation_workshop_wiki_guide.pdf

## SOPs

Changing gas bottles and ordering gas

Moving gas cylinders

Changing Silane container

Refilling Solvent Squirt Bottles

SCA-1200HT Solution Change

# Handouts

Universal Training Sign In

New User Orientation Handout

End of Orientation LHAT Form

New User Training Sign In

# Laser Cutter

### Creating New Recipes

To create a recipe for a new approved material, begin by doing research on what power and speed is generally used for your material. Be sure to account for the differences in speed and power of the printer you're using versus the printer which you found the material recipe for. Your recipe will be a Speed(0-100%) and Power(0-100%) setting for both engraving and cutting your material. Cutting will need significantly more power/less speed than engraving. Remember that a lower speed will result in a higher cutting intensity and vice versa. To make a new recipe, click the setting menu in JobControl select Material settings. Create a new recipe for each color indicating whether it is cutting or engraving. Many recipes are already available for use/reference in JobControl. Creating a new recipe for a material will require experimentation of different power and speed values. Always start conservatively so as not to cause a fire or damage the printer. Slowly move up in intensity(higher power, lower speed) until you reach the intended cutting intensity. For example, if the laser is not fully cutting through the material, either increase power or decrease speed. If part is overly burning/melting, decrease power or increase speed.