# Makerspace 490 Option A: Create or Improve a Tutorial

Final for Makerspace 490 Class | Instructor Jeff Ginger | Fall 2015

One of the most frequently overlooked usability heuristics on Jakob Nielsen’s famous list (<http://www.nngroup.com/articles/ten-usability-heuristics>) is user help and support. Many software programs, especially those that are open source, don’t have much in the way of documentation or guidance for first-time users. Creating a tutorial can be one method of making an interface more usable or adaptive for specific audiences after it has already been designed and deployed. Electronic document tutorials have the added benefit of replicability, searchability and crowd-sourced revision as well, something not possible in video or in-person based instruction.

The Fab Lab has an assortment of tutorials, all varying in quality and specificity. For this assignment your task is to either: (A) improve one of them OR (B) create a new tutorial for a machine or software interface that is used by makers at the Fab Lab. You can find an initial list of tutorials on the website at <http://cucfablab.org/get-started/tutorials/>.

### The guidelines

* Your tutorial should be based on the template at <https://drive.google.com/folderview?id=0B51IDjX7swnSfnlTeHJ6eFgxOVFSZS1LX1J2WEtsX0I0S1hoZ0NCbmpPMkRzSXh2bFFlbTA&usp=sharing&tid=0B-0Hvavef7S5fmV0MWc2NklWRWMxX081cjd1eEs2UjAtakxYN3NkTjhxckJmZU15UHJKNlE> - follow all of the guidelines in this document, including formatting like headers, use of visually annotated graphics (arrows, etc) and so on
* You will need to take pictures for this assignment – use your phone or borrow a Fab Lab camera
* If you are creating a new tutorial, ask a staff person to teach you how to use a given software or machine, and take notes; if you are revising an existing tutorial try going through it on your own first, and then ask for help if you run into problems
* Once you have completed your tutorial, either test it on a friend or patron at the lab OR go over it with one of the staff members to talk about your improvements – take notes and go back to revise your tutorial based on this experience
* Write a short 1 page report on the process and include (1) an explanation of why you chose this tutorial, (2) a summary of improvements made – or in the case of a new tutorial the objectives taught and (3) what revisions you made after testing it. Make sure to include a link to your Google Doc tutorial (ensure permissions are set to anyone with the link!) in your report.

### Tutorials that need revision

* Electronic Cutters > Silhouette Cameo + Studio Basics
* Electronic Cutters > Roland Camm-1 GX-24
* Laser > Living Hinges
* 3D modeling > Agisoft
* 3D printing > TAZ
* Small Electronics > Pom Pom robots
* Small Electronics > Simple Robot Car
* Small Electronics > LED joystick
* Milling > Shapeoko Basics

### Tutorials that need to exist

* Brother SE400 digital embroidery machine – How to thread, replace the bobbin and/or change the foot; trouble-shoot snares and restart the machine from a specific stitch point in the process
* Silhouette electronic cutter - Create a multi-layer sticker with Photoshop OR the Silhouette library
* Laser – engrave a cylindrical object
* Soldering - basics
* Kinect V2 – Use the SDK (Fusion WPF) to make and export scans in varying contexts
* Slicr – Preparing an STL file for 3D printing
* Sculptriss – Controls and methods for creating viable shapes for 3D printing
* Embroidering clothing – Iron-on patches and embroidering directly with iron-on stabilizer
* 3D laser-cut parts – 123D Make
* Screen printing – The process at our lab
* Neuromaker Milling Machine – Basics
* Electronics – Portable solar panel charger
* Electronics – Arduino-driven plushie character with sensor/noise-maker
* Others not listed

# Makerspace 490 Option B: Community workshop

Do a workshop in the community. Requires more planning and coordination for drivers and moving equipment, etc… no tutorial required if this is your choice.

# Makerspace 490 Option C: Marketing

Create a flyer to advertise the workshop, help disseminate it around campus/town and via social media. Talk to the instructor if you’d like to do this.