E-403 LASER LAB ORIENTATION

Open: Monday-Sunday 10am-9pm

If you need any help, please ASK our staff!

You MUST have a reservation to use this lab:
my.newschool.edu > student tab > student success network > StarFish login > E-403 lab

You may use:
A Laser Cutter up to 60 minutes per day.
If you try to make multiple reservations, or use multiple machines, ALL your reservations will be cancelled.

The Carlson Cutter up to 60 minutes per day.
If you try to make multiple reservations, or use multiple machines, ALL your reservations will be cancelled.

Ensure your AutoCAD or Adobe Illustrator file is ready for use.
Illustrator must use an RGB set up, with an 18x24 art board for the Universal (Grey and Red) Laser Cutters and 24x36 art board for the Epilog Laser Cutter. Red (RGB 255,0,0) is for scoring or engraving, Blue (RGB 0,0,255) is for cutting. Line weight or stroke should be 0.001 pt, For AutoCAD, use Red for scoring and Blue for cutting.
When you arrive for your appointment:

Check-in with staff **BEFORE** you use the laser cutter.
Staff will confirm your reservation, then check your material for approval. If approved, staff will unlock your station for use.

Any material **MUST** be approved by staff before you can cut. Be aware of prohibited materials.
Maximum cutting thickness of any material is ¼” (or thinner depending on material). It is always a good idea to have an extra test piece of material to cut when exploring new materials. See page 4 for a list of banned materials. Other materials may be banned that are not currently on this list, this list is subject to change.

**Students are responsible** for safe operation of the lasers.
If you are having trouble cutting through a material, ask staff for help. DO NOT attempt to change power settings on your own; it can be very dangerous and may result in fire or accidents.

Students **MUST** remain with laser while cutting!
If you intend to leave your station, please pause your cut and resume once you are back.
If you leave your station when the laser is cutting, your laser cut will be stopped.
Preparing the Laser Cutter for cutting:

**Switch** the Air Assist Compressor is **ON**
The air compressor pumps clean air into the laser cutter to replace the air sucked out by the vacuum. The burning process sometimes creates smoke. The laser cutter uses a vacuum and compressor working in unison to ensure the internal environment does not remain smoky.

**Switch** the laser cutter is **ON**
If the laser cutter is off, use the start button on the right-hand side (grey machines) or the software console (red machines) to switch the laser cutter on.

**Focus** the laser on top of your material
The laser cutter must be focused before use. This is done using the plastic focus tool (on the inside left), and the Z adjustments of the laser cutter. Use the focusing tool and move the table up or down. **Press the Z button to enter focus mode, move the table, then press the Z button to exit focus mode.** If you need to move the table up or down, you can press the triangle up or triangle down keys.

**Clean** the machine and **remove any parts/pieces** from the bed
When finished with cutting, turn off the compressor, clean the machine, and remove and parts/pieces from the bed. *Leave it as you found it.*

**More information can be found at:**
resources.parsons.edu/equipment/laser-cutter/
APPROVED MATERIALS

Only materials from the list below may be cut. Maximum thickness of ¼”. Provide/obtain documentation if unsure.

**Wood**
- Hardwood (Cherry, Maple, Walnut)
- Mediumwood (Alder, Birch)
- Softwood (Balsa, Bass, Pine)
- Birch Plywood

**Board**
- Chipboard
- Museum Board
- Illustration Board
- Task Board
- Matboard
- Oil Board
- Corkboard
- Butterboard
- Bristol
- Masonite

**Fabric and Leather**
- Wool
- Felt
- Silk
- Canvas
- Cotton
- Leather
- Suede

**Paper**
- Regular Paper
- Heavyweight Paper
- Cardstock Paper

**Synthetic**
- Cast Acrylic/Plexiglass (From Canal Plastics or TNT Plastics with documentation)
- Mylar
- Vellum
PROHIBITED MATERIALS / DO NOT CUT:

*If you have an unknown material, bring us a sample and our staff can test it out.*

- Foamcore
- Styrofoam
- Soft foams such as EVA foam
- Corrugated Cardboard
- Metals
- Reflective materials
- Gels
- Glass
- Food Products
- Rubber
- Fiberglass
- Blue or Pink foam
- Carbon fiber
- ALL PLASTICS (except Acrylic & Plexiglass)
- Synthetic fabrics such as Nylon, Rayon, Polyester