Carnegie Mellon University

School of Art

Reservation Guidelines for Laser Cutters and CNC Router

School of Art (SOA) facilities and equipment are primarily for the use of students (including students from other schools who are currently registered for SOA Classes) who have been authorized via lab orientation training by **Digital & Physical Computing Technician, Jenna Boyles** (jboyles@andrew.cmu.edu)

Use of the laser cutters and CNC router outside of class time is granted only through the SOA reservation system. We do not accept walk-ins. This ensures student assistance and supervision of trained monitors and staff technicians.

CANCELLATION POLICY: Please be prepared and on time for your reservation. Come with your file(s) and material ready. It is **not** the responsibility of the staff to design your file for you. If you are over 15 minutes late or do not have your file ready, you may forfeit your reservation at the discretion of the staff on duty.

Click on the links below to reserve and for additional information:

EPILOG Laser Cutter Reservations and Information

BOSS Laser Cutter Reservations and Information

CNC Router Reservations and Information

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EPILOG **Laser Cutter -** Doherty Hall C316

→ Max material dimensions: 32” x 20”
→ Max material thickness: ¼”
→ File Setup Type: Adobe Illustrator (export as .ai)

The Epilog Fusion is a **45 watt** laser capable of cutting and etching acrylic, hard and softwoods, plywoods, masonite, cardboards, papers, leather, and 100% wool or cotton.

For laser cutting, files may be prepared using any vector based software. If you have never used the laser cutters before and anticipate needing assistance from a monitor, it is most efficient to arrive with an Adobe Illustrator file.

Students can reserve up to **1 hour of 30 minute sessions per day** on either the Boss or Epilog laser cutters and are limited to **3 hours** of reservation time per week. Students in need of additional time for complicated projects should contact the **Digital and Physical Computing Technician.**

Link to full lab policies and guidelines: Laser Lab Policies + Guidelines.docx

WHAT TO BRING:

- For laser cutter review the: Illustrator Laser Cutting Checklist
- Check the List of Approved Materials
- **DRESS APPROPRIATELY** Wear proper clothing and PPE. CNC and Laser Lab users must also comply with SOA Shop Safety guidelines by wearing proper close-toed footwear and clothing, as well as the provided PPE for each machine.

Click here to make Epilog reservations

BOSS Laser Cutter - Doherty Hall C316

→ Max material dimensions: 55” x 35”
→ Max material thickness: ¼”
→ File Setup Type: Adobe Illustrator DXF (export as .dxf)

The BOSS LS-3655 is a 100 watt laser capable of cutting and etching acrylic, hard and softwoods, plywoods, masonite, cardboards, papers, leather, and 100% wool or cotton.

For laser cutting, files may be prepared using any vector based software. If you have never used the laser cutters before and anticipate needing assistance from a monitor, it is most efficient to arrive with an Adobe Illustrator file.

Students can reserve up to **1 hour of 30 minute sessions per day** on either the Boss or Epilog laser cutters and are limited to **3 hours** of reservation time per week. Students in need of additional time for complicated projects should contact the **Digital and Physical Computing Technician.**

Link to full lab policies and guidelines: Laser Lab Policies + Guidelines.docx

WHAT TO BRING:

- For laser cutter review the: Illustrator Laser Cutting Checklist
- Check the List of Approved Materials
- **DRESS APPROPRIATELY** Wear proper clothing and PPE. CNC and Laser Lab users must also comply with SOA Shop Safety guidelines by wearing proper close-toed footwear and clothing, as well as the provided PPE for each machine.

Click here to make BOSS reservations

CNC Router - Doherty Hall D200B

→ Max material dimensions: 48” x 48”
→ Max material thickness: 2”
→ File Setup Type: Adobe Illustrator (export as.ai) or Rhino (export as .dxf or .3dm)
→ Link to full lab policies and guidelines: CNC Router Policies + Guidelines.docx

CNC facilities include a 48” x 48” three-axis CNTMotion CNC Router with an 11-piece automatic tool changer, vacuum table, and dedicated computer control station. The tools included in the tool library and their capabilities can be referred to here.

This machine is capable of cutting materials such as foam (pink/green insulation type), wood composites like MDF, plywood, and a variety of hard and softwoods, machinable plastics, and solid surface materials. For a full list of which tools can cut what materials see here.

RhinoCam software is only available on the PCs in the Physical Computing classroom (DH B305) and the desktop computer in the CNC room. Your instructor, a monitor, or technician will assist you in generating and posting all toolpaths as a g-code file using RhinoCam. If you are a student in Digital Fabrication, be sure to save your working Rhino/RhinoCam .3dm file and bring a copy to your reservation, in case any changes need to be made.

Students can reserve **up to 2 hours of 60 minute sessions per day** for the CNC router, and are limited to **4 hours** of total reservation time per week. Students in need of additional time for complicated projects should contact the Digital and Physical Computing Technician.

WHAT TO BRING:

- **For the CNC Router:** Review the CNC Router File Checklist If it is your first time using the CNC router, or you have a more complex file, consult with the technician or your professor prior to booking a reservation. Make sure you understand how to prepare a file and what you plan to accomplish.
- Check the List of Approved Materials
- **DRESS APPROPRIATELY** Wear proper clothing and PPE. CNC and Laser Lab users must also comply with SOA Shop Safety guidelines by wearing proper close-toed footwear and clothing, as well as the provided PPE for each machine.

Click here to make CNC reservations

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