



General Policies

Introduction



This document introduces Ideation Station users to the lab's general policies. All faculty, staff, students and community members (with some age restrictions) can access equipment in the Ideation Station and 3D printing room during open hours. Everyone must sign a waiver before using any equipment.

Prototype in Ideation Station, Manufacture Elsewhere

Similar to the rules set forth in the [Fab Charter](#), commercial activities may be prototyped and incubated in Ideation Station; however, they should grow beyond rather than within the lab. Making more than 10 of an item is considered manufacturing, which is not allowed in this space. When you

are ready to go beyond your prototype and grow your commercial activity, please consult with lab staff for commercial manufacturing resources.

Discriminatory Material

The College does not condone or allow the use of college equipment or computers to produce discriminatory material based on sex, gender, race or ethnicity. Materials that promote hate messages to any group of people are prohibited in the Ideation Station.

Weapon Making Is Banned

Due to College policy on weapons, no weapons or lifelike replicas are allowed on campus, nor may anyone produce them in the Ideation Station. This includes parts of weapons, ammunition, and defensive as well as offensive weapons. If you aren't sure what constitutes a weapon, please consult an Ideation Station staff member.

Tools of Vandalism are Banned

Items produced in the Ideation Station may not be used in a way that violates College posting policies or local, state or federal laws regarding vandalism. If you have any questions about this policy, please consult an Ideation Station staff member.

Consequences for Policy Violations

Access to the Ideation Station is a privilege and not a right. All lab users are responsible for learning and following the Ideation Station policies posted on the website. Knowingly or

unknowingly violating lab policies does come with consequences. Exact consequences vary depending on the nature of the violation and will be decided by full-time lab staff. Possible consequences include being asked to leave for the day, being banned from the lab, Campus Police involvement and potential legal action. The severity of the consequence will be matched to the severity of the infraction.

Injuries

If you are injured at any time, you may use the first-aid kit mounted by the front doors on most floors of the Ideation Station. If the injury is more severe, ask lab staff to call 987-4325 (Campus Police) and let them know you need a ride to the emergency room.

E-Waste

From time to time, there is a need to safely dispose of electronics such as circuit boards, computers and monitors. Make Ideation Station staff aware of such items rather than disposing of them in the trash.

Hazardous Waste

Hazardous waste includes things like lightbulbs, ink, printer toner, oil, batteries and other things that don't belong in a landfill. Do not dispose of these in the trash. Use the blue bin marked "Hazardous Waste" located in the third-floor recycling area. Label any oils, inks or other chemicals so they may be disposed of properly by trained staff. Not labeling items hurts our ability to safely dispose of the material.

Power Outage or Fire Alarm

In the event of a power outage or fire alarm lasting longer than 60 seconds, everyone in the lab must leave their work and exit the building. Use the stairs, not the elevator. You may pick up your belongings after the emergency is over. If you use a wheelchair, you will be directed to a nearby firewalled area such as a positively pressurized staircase; lab staff will notify campus security, who are trained to help you safely exit the building.

Active Shooter Plan

In the event of an active shooter on campus, please keep the acronym A.L.I.C.E. in mind to help ensure your own safety and that of others.

A.L.I.C.E. stands for:

ALERT: Call 987-4911 to reach Campus Police dispatch. Campus Police will respond faster than 911 because they are closer and are familiar with building names and other Tri-C lingo that a Cleveland police dispatcher might not understand. Give a description of the suspect and a location if possible.

LOCKDOWN: Lock and barricade the entrances with anything around you. Know where the entrances are and how they open. Use belts, desks, computers, cabinets or anything else at your disposal to impede a potential shooter.

INFORM: Stay informed by signing up for Tri-C's A.L.I.C.E. alert system.

COUNTER: If you are in immediate danger and LOCKDOWN or EVACUATE are not options, fight back! Attack the shooter, throw things at the shooter's head, make noise, yell and try to

subdue the shooter by knocking him to the ground, separating him from his weapon and restraining his limbs and head. Do not passively sit in a corner!

EVACUATE: If you can safely make it out of the building, do so. Have a plan, know where the exits are and leave the building as quickly as possible.

COUNTER should only be used if you have no other options. Do not leave a safe place to attack an armed gunman. Additionally, try not to impede any emergency responders while a gunman is actively threatening the campus. If you are injured, try to stop any bleeding using improvised tourniquets and compresses (belts, clothing, feminine napkins, etc.) and wait for emergency responders to finish securing the area first before seeking assistance. Make sure emergency responders can see that you don't have anything in your hands. If you manage to separate the gunman from his weapon, make sure to secure it in a trash can or other safe place so that emergency responders don't mistake you for the gunman.

Cleaning Up

Please be responsible and clean your station once you are finished working in the lab. It is not anyone else's job to clean up your mess; it takes up time that could be better spent helping users. Messes can also pose a safety hazard.

Project Storage

Currently, the Ideation Station does not offer project storage for the public. Student projects may be stored with prior permission from the professor or lab staff. Projects left in the lab will be moved to the lost and found or discarded. Remember to take your project with you when you leave.

USB Flash Drives






We receive sporadic reports of flash drives not working in PC's. There are a few known issues that can cause this, and perhaps some unknown issues as well. For one, drives formatted with a Macintosh file system won't work on a PC. For another, if you need to install specific device drivers (if the flash drive doesn't support the generic usb storage device driver) then it won't work. Let's determine if there are other issues at play. If your flash drive doesn't work, try it in another pc... then try it on a Mac. If it works on the Mac and not on the PC, it's a file system formatting issue. If it doesn't work on any computer, watch what happens when you plug it in.

Lab Access Policy

All students, staff, faculty and community members (with some restrictions for minors) may enter the Ideation Station during open hours. Access to the facility does not denote approval to use any particular tool or machine.

Machine Access Policy

Each tool and machine in the Ideation Station falls under one of five access levels:

<p>ACCESS LEVEL</p>  <p>1</p> <p>NO SPECIAL INSTRUCTIONS</p>	<p>Access Level 1 Anyone 5 years and older may use these tools/machines.</p> <p>No Special Instructions</p> <p>Examples of Level 1 Equipment: Computer, printer</p>
<p>ACCESS LEVEL</p>  <p>2</p> <p>SUBMIT YOUR JOB ONLINE</p>	<p>Access Level 2 Anyone 8 years and older, may use these tools/machines.</p> <p>Follow Standard Lab Procedures</p> <p>Examples of Level 2 Equipment: Screwdriver, hand tools</p>
<p>ACCESS LEVEL</p>  <p>3</p> <p>FOLLOW ONLINE TUTORIALS</p>	<p>Access Level 3 Anyone 12 years and older may use these tools/machines.</p> <p>Complete Online Tutorials or Attend Training Course</p> <p>Examples of Level 3 Equipment: Laser cutter, vinyl cutter</p>
<p>ACCESS LEVEL</p>  <p>4</p> <p>FOLLOW STANDARD OPERATING PROCEDURES</p>	<p>Access Level 4 Anyone 18 years and older (or ages 14-17 with a liability form signed by their legal guardian specifying use of Level 4 equipment) may use these tools/machines.</p> <p>Attend Training Course and Pass Exam</p> <p>Examples of Level 4 Equipment: 3D printer, hand-held power tools</p>
<p>ACCESS LEVEL</p>  <p>5</p> <p>ATTEND TRAINING COURSE</p>	<p>Access Level 5 Anyone 18 years and older may use these tools/machines.</p> <p>Attend Training Course and Pass Exam</p> <p>Examples of Level 5 Equipment: Band saw, drill press, miter saw, Techno CNC router</p>

Level Proficiencies

Level	
1	Know the rules of the lab. Use of computer, printer and plotter.
2	Use of hand tools; proper use of fume hood.
3	Ability to use X-ACTO knives and other blades safely and correctly; use of the paper cutter. Vinyl cutter; laser cutters; heat press. Use of power hand tools such as drills and sanders.
4	Low-end 3D printers (i.e., MakerBot, Ultimaker, CubePro). Use of pneumatic tools and heat gun.
5	Advanced equipment; advanced 3D printers; 3D scanners (except FARO).
Misc.	Individual trainings: Embroidery machine; CNC wood router; mini mill; 3D Scanners (except FARO)

To achieve the next level of proficiency:

- ✓ Pass a written test with at least 85 percent (re-attempts are permitted once per day)
- ✓ Demonstrate knowledge via hands-on examination

Level I

- Computer
- Printer or plotter

Level II

- Use of basic hand tools; excluding power tools (see Standard Operation Procedures of Hand Tools document to verify level of access for each hand tools)
- Do not work on, play with or use equipment you are not authorized to use
- Use computer and programs appropriately
- Use fume hood when working with aerosols, off-gassing chemicals, irritating smells, etc.

Level III

- Knives
 - Never leave an open blade when the knife is unattended
 - Only walk with a retracted or capped blade
 - When handing a knife to another person, hand them handle first
- Paper cutter
 - Do not place hand anywhere near cutting blade or cutting rail when setting up or executing a cut
 - Do not cut pieces smaller than 1.0"
- Vinyl cutter
 - Do not take apart or remove components
 - Do not touch end of cutter or cutting knife
 - Leave enough material slack for your cut job

- Begin cut job as close as possible to the bottom of the material
- Minimize waste by cutting multiple jobs on a single sheet and in close proximity
- Laser cutter
 - Always turn on filters and pumps prior to using machines
 - Never look at the laser as it is cutting a job
 - Always close cover before starting a job, and only open after the job is finished.
 - Make sure project material is squared up to top left corner of the cutting table
 - Do not leave machine unattended while executing a job
- Heat press
 - Turn on approximately 20 minutes prior to use
 - Never touch heat plate once turned on
 - Make sure you are able to close and hold press prior to heating up machine
 - Double-check your design prior to press; once you begin the press, it is permanent
 - Do not leave a hot press unattended

Level IV

- Pneumatic tools
- Heat gun
- Low-end 3D printers (*not Fortus, Mojo or Objet*)
 - Make sure STL file is free of errors and issues
 - Understand build plate leveling
 - Loading/unloading material and changing materials
 - Understand fill % and fill patterns
 - Understanding part orientation
 - Understanding supports
 - Understanding temperatures
 - Understanding different materials
 - Understanding adhesion
 - Basic troubleshooting
 - Proper startup/shutdown procedures

Level V

- 3D Scanners (*not FARO*)
 - Proper setup
 - Scanning techniques
 - In-program stitching
 - Basic troubleshooting
- High-end 3D printers (*Fortus, Mojo*)
 - Same as Level IV plus:
 - More advanced troubleshooting
 - Proper and efficient machine usage
 - Using Insight, Control Center and Mojo Print Wizard
 - Using acid bath to remove soluble supports
 - Proper cleanup