



IDEAS Member Guide

IDEAStudio is the makerspace at Houston Community College's West Houston Institute. We provide an open and supportive place where you can develop your creative mindset and skillset, supported by digital fabrication technologies such as 3D printers, laser cutters, and CNC machines, as well as traditional tools like drills, saws, and welders, to take your ideas from concept to reality.

"IDEAS" stands for Innovation, Design & Entrepreneurship integrated into the Arts & Sciences. To help you develop the mindset and skillset we believe are essential for your success today, IDEAStudio provides membership to the makerspace for students, faculty, and staff; workshops to support your creative development; and classroom engagement through hands-on course projects.

This Member Guide is designed to help you get the most out of your IDEAStudio experience. As someone once said, "with great power, comes great responsibility." Our team and our members share a commitment to these three guiding principles:

- Safety for our members, visitors, and staff
- Stewardship of our facilities and equipment
- Respect for one another and each other's work

Location & Contact

Address:

West Houston Institute
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Main: (713) 718-2410

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<http://hccs.edu/ideastudio>

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General Guidelines

The following are general guidelines that have been put into place to ensure that the makerspace provides a safe and positive experience for all users. Note that additional safety and usage rules may be in place for individual spaces and tools.

Makerspace Access

IDEAStudio is not a public facility. All visitors should check in at the front desk when entering the facility. Access will depend on the category of the visit.

Members will need to sign-in and may be asked to provide a current student or employee ID each time they use the makerspace. Access to specific spaces will be determined by the tool training and testing the member has successfully completed.

Minors are required to be supervised by an authorized adult who will be present with them for the duration of their visit. Authorized adults may include faculty, staff, or school staff members who are current IDEAS members.

Students who are attending a workshop, speaker, club meeting or other scheduled activity in the makerspace will have access to the area designated for the activity.

Events are often open to the community, including non-members, and are usually held outside normal operating hours when tools will not be used. During these times, the makerspace will have looser rules around access to the space. This will be determined per event.

During normal operating hours, all other visitors will need to be accompanied by a staff member for the duration of their visit.

IDEAStudio is intended to be accessible to all members of our college community. If you are unable to access any of the tools or equipment, please talk to a staff member. We will work with you to make any reasonable accommodations that will help you to work more freely in the space, while complying with our safety and stewardship guidelines.

Membership

Current HCC credit students, faculty and staff are eligible to become members of IDEAStudio. Membership provides access and the use of tools and equipment during operating hours.

New users will be required to attend an orientation and pass a safety quiz before gaining membership. Check with a staff member or our website for more information.

Members are expected to always adhere to the guidelines laid out in this document. Those who do not comply may be asked to leave. Multiple infractions will result in loss of privileges.

Spaces & Tools

Members are required to complete training and testing for all tools and equipment in the makerspace. Do not attempt to check out or reserve tools you are not cleared to use.

Hand tools are available to all members upon successful completion of the new member orientation and safety quiz.

Power tools can be checked out from a staff member. All power tools **MUST** be checked back in before the user leaves the space.

Tools check out to you should not be used by anyone else. For example, if you have checked out a power drill, it should not be shared with anyone else.

Reservations are required to use some equipment. Members will be informed during training if a particular piece of equipment requires previous sign-up for use.

You should never attempt to access or allow others access to work areas where it has not been earned through successful completion of training or is restricted to makerspace staff.

Leave ample time in your work schedule to clean-up after tool use. Follow the clean-up process expected for each tool and work area.

Although personal use of the makerspace is permitted for members, academic assignments and projects take priority. Access may be limited to certain tools during the semester to accommodate instructional needs.

Housekeeping

All members are expected to participate in the upkeep of the makerspace. Work areas should be organized and pathways clear, tools should be returned when not in use, and waste should be properly disposed of before leaving. Users will be asked to cease work and assist with clean-up of the space 15 minutes before closing.

Light food and drink are allowed in the kitchen area. Make sure you pick up after yourself and dispose of all containers and trash when you are done.

The kitchen area, including the refrigerator, microwave, and sink area are all available to be used by members. Please clean up after yourself remove any personal items before leaving the makerspace. Any leftovers or other items will be disposed of at the end of each day.

Report any spills that you find or are unable to clean up on your own. If you are not sure what it is, leave it and get a staff member.

Storage

Members, including individuals and groups, may be able to use the storage area to keep materials and projects. Ask a staff member for more information.

Storage is limited and is based on availability. Always ask before assuming that storage can be provided for a particular project.

Limitations may exist for storage of certain kinds of materials based on the need for specialized containers and or safety concerns.

Materials

Members will need to provide their own materials for any projects created in the makerspace.

Use only approved materials as defined for each tool in the makerspace. This will be covered in the tool training and posted online and in work areas.

Scraps donated by members or by the makerspace can be found in designated areas. These are available on a first-come, first-serve basis. There is no guarantee as to the quantity or quality of any of these materials.

Restrictions

Use of the facilities, tools, or equipment to make, replicate, or alter objects, whether physical or digital, that violate copyright, patent, or trademark law is not allowed.

Likewise, it is prohibited to make weapons, drug paraphernalia, or other items using our facilities, tools, or equipment.

IDEAStudio reserves the rights of its staff to stop any project that is deemed unsafe for any reason or violates college policies or any local, state, or federal laws.

Safety Rules

The following are personal safety guidelines that should be followed at all times and in all areas.

Additional safety rules may be enforced for specific work areas and tools and will be covered in posted signage and training sessions.

Emergency Information

All HCC emergency procedures should be followed: <http://www.hccs.edu/emergency/>.

In case of POLICE emergency, call 713-718-8888.

In case of FIRE or MEDICAL emergency, call 911.

In case of FACILITIES emergency, call 713-718-2339.

There are three public telephones in the makerspace:

- Reception Desk located at the main entry
- Room 118 (Metal Shop), located on the east wall
- Room 134 (Wood Shop), located on the north wall

Before beginning work, note the location of the nearest exit. Each room has a clearly designated evacuation route. Have a plan for evacuation if needed.

Know the location of first aid kits, automated external defibrillator (AED), and fire extinguishers. Make sure a situation is safe before attempting to provide help.

A first aid kit is located in the Kitchen on top of the counter. A smaller First Aid kit is at the reception desk. The First Aid kit is designed to provide immediate, lite medical assistance.

In case of a cardiac (heart-related) emergency, the automated external defibrillator (AED) can be found outside the makerspace by the information desk and main stairwell. This device can automatically diagnose cardiac problems and administer appropriate treatment.

General Safety

All HCC safety guidelines should be followed: <http://www.hccs.edu/departments/environmental-safety>.

Do not attempt to work in the makerspace when you are tired, stressed or distracted.

Do not work alone. Always have another person in the space where you are working.

Members are required to dress appropriately while working in the makerspace.

- Loose fitting and baggy clothing is not allowed
- Close-toed shoes are required at all times
- Long hair should be kept tied back
- Loose jewelry should be removed. If in doubt, remove it.

Members are required to wear protective gear, such as safety glasses, ear plugs, face masks, and gloves in designated areas.

Know the locations of the Personal Protection Equipment (PPE) stations. The PPE stations include safety glasses, smocks, gloves, ear protection, clothes pins & disposable hair ties and can be found throughout the IDEASpace. These may be found in bins at the Safety Stations throughout the IDEASpace.

Always ask for assistance before attempting to obtain any tools or materials from areas requiring ladders or other special equipment for access.

Use proper lifting techniques for heavy objects; bend at your knees not at your waist or ask for assistance. Any object over 75 lbs. is considered a two or more-person lift, although you should be aware of your own limitations.

Tool Safety

Be aware of and follow any specific instructions and safety guidelines in place for each of the shops, work areas, and tools. These will be communicated verbally during training sessions and will be posted in each work area.

Members should use the tools provided in the makerspace. Outside tools are not allowed unless prior written consent is given by the makerspace manager.

Report any materials or debris left on or near tools or their associated workspaces. For any debris, especially liquids, found in tool workspaces, do not attempt to clean it up. Notify a staff member immediately so that they can determine how best way to proceed with cleanup.

All materials must be stored safely in your area during your work time. Do not lean large objects against a table or place pieces of wood, pipe, etc. so that they extend into the aisles around tables.

Use the appropriate tool for the job. Do not force a tool where a more appropriate tool can be used. Ask for assistance if you are unsure when choosing tools.

Ensure that tools are in working order before beginning any work. Do not use or attempt to fix damaged or malfunctioning tools. Immediately report any issues with tools or their associated work areas to a staff member.

Let others know when you are about to use power tools that may be loud or may create flying debris while in use. Give those nearby time to take any precautions.

Properly secure materials when doing any drilling, cutting or grinding. Holding materials while using tools is not acceptable. Use any of the clamps available on the mobile carts throughout the space.

Before starting any powered equipment, make sure that any safety features, such as guards, are in place. Check that there are no objects in the path of the tool.

For any powered equipment, know where the stop switch/button is located. This will be needed if something goes wrong and you need to immediately stop the machine.

Do not leave tools running unattended. Stop machines if you need to step away for any period of time. 3D printers are the only tools for which this does not apply.

Before leaving the makerspace, make sure that you have cleaned your work area and have returned any equipment or tools to the appropriate storage areas.

Electrical Safety

There are various ways of protecting yourself from the hazards caused by electricity, including insulation, guarding, grounding electrical devices. Members can significantly reduce electrical hazards by following some basic precautions.

Safety glasses and closed-toe shoes should be worn when working on electronics.

Remove all jewelry, including earrings, necklaces, rings, and watches, before working on energized circuits or taking measurements. These items can provide a conductive path for electricity which may result in shock.

No eating or drinking while soldering. No exceptions.

Voltage and current settings must be verified before applying power to any circuits, circuit boards, motors, etc.

Avoid contact with energized electrical circuits or use guarding around exposed circuits and sources of live electricity. (If using electrolytic capacitors, verify the polarity of the leads before installing into the circuit to avoid rupture of the component.)

Remember that with electric motors torque and current are directly proportional. If full power is applied to a motor at the start up, it will try to accelerate to full speed as quickly as possible.)

When it is necessary to handle equipment that is plugged in, be sure hands are dry and, when possible, wear nonconductive gloves and shoes with insulated soles.

Take electrical test measurements using the "one hand" rule. Attaching only one test lead at a time will reduce the risk of receiving an electrical shock.

Try to avoid making/breaking connections with power applied. Locate where and how to quickly remove power from a circuit in the event of an emergency. If water or a chemical is spilled onto equipment, shut off power as safely as possible and notify staff immediately.

Also, keep in mind if someone is receiving an electrical shock, do not touch them.

Do not attempt to put water on an electrical fire! Fire extinguishers available for use.

Soldering station must be cleaned after use and before checking in to staff! These stations are shared among all members and must be clean and organized for the next user. Please notify a staff member if you find that the soldering station was not cleaned by the previous user.

Wash your hands after soldering-this is very important as solder contains lead.

(Thanks to Rice University OEDK for permission to use the information in this section.)

Conclusion

Most of these rules are common sense while others are good habits that need to be adopted to ensure that IDEASstudio is a safe and productive place for all members and participants in. Please notify makerspace staff if you see any safety issue that needs attention.