makerspace

Equipment Use Guide



Welcome to the Makerspace!

We're so glad that you're here. The Makerspace is a student-centered arts, crafts, and fabrication studio that encourages and supports student creativity outside the classroom. The Makerspace exists to promote hands-on skill development and foster a sense of community among makers. Unlike many of the other creative spaces at Columbia, the Makerspace is open to ALL students, regardless of background or major. We encourage you to experiment and try something new.



If this is your first time in the Makerspace, please take a moment to familiarize yourself with our usage guidelines. These help ensure that the space remains safe and accessible to all.

- Have your ID ready. Each time you visit the Makerspace, an employee will ask for your ID number to sign you in. If you choose to borrow any tools from behind the counter, an employee will hold your ID while you have the items checked out.
- Use of our free resources is intended for class projects, hobbies, prototyping, and band/club/student organization marketing. If you plan to sell any items you make in the Makerspace, you are welcome to use the Makerspace's tools and equipment, but you must provide your own materials.
- Specialty materials are not guaranteed. The Makerspace strives to offer a variety of options to students, but there are limitations to what we can provide. You can always expect to find basic supplies like markers, paper, and tape in the space. The availability of other materials is subject to change. Keep an eye on our social media for workshops or pop-ups featuring specific supplies.
- Weapons, including realistic props and reproductions, are not allowed in the Makerspace.
- Follow instructions from Makerspace staff. If you
 consistently behave in ways that create safety concerns
 after being warned, you may be asked to leave the space.
- Respect the space and your fellow students.
- Clean up after yourself
- Have fun, and don't hesitate to ask for help!

The tools and equipment offered in the Makerspace fall into three categories.

NO TRAINING REQUIRED

SPECIFIC USAGE GUIDELINES

TRAINING REQUIRED

NO TRAINING REQUIRED

scissors

drills staple guns

rulers levels

dremels

mallets dremels box cutters

tape measures bone folders

hammers

lino cutting tools hole punches

awls

rotary cutters heat guns

sculpting tools

x-acto knives pliers

wrenches

screwdrivers

These items are kept behind the counter. Just check them out, and you're good to go! If you do have any questions, you're always welcome to ask

SPECIAL GUIDELINES

light pad

button maker

sinks

glitter

paper cutter

coil binding machine

comb binding machine

paint

paintbrushes

die cutter

mat cutter

glue

Please review the guidelines on the following pages before using these tools.



LED Light Pad

- Do use the light pad for tracing and sketching with dry media.
- Don't use markers, paint, x-acto knives, or any media near the light pad that will bleed onto or cut the glass surface.
- The light pad can be adjusted to sit at an angle with stackable rubber feet.

Button Makers

- Individual students can make up to 50 buttons per semester.
- Recognized student organizations can make up to 150 buttons per semester.
- If you want to sell your buttons, you may use the Makerspace's button makers, but you must provide your own button supplies.
- Shop Columbia sells 50-pack button supplies in all three sizes: 1", 1.5", and 2.25".

Coil and Comb Binding Machines

- Do punch and bind copy paper, card stock, and thin plastic transparencies only.
- The binding machines punch up to 12 sheets of copy paper at a time.



Die Cutters

- The wood die cut letters and shapes are for paper, construction paper, and light card stock only.
- Don't die cut fabric, plastic, metal, wood, or other thick materials – these materials will dull and bend the metal blades.
- Place paper on gray plastic bed.
- Place wood die cut letter or shape wood side up/black foam side down on top of paper.
- Slide gray plastic bed with paper and die cut to the left and under the heavy silver metal plate.
- Pump the lever to the right a few times to get a clean cut.
- Slide the gray plastic bed with paper and die cut to the right and out from under the heavy silver metal plate.

Large and Small Paper Cutters

- The paper cutters are for paper, construction paper, light card stock, and poster board only.
- Don't use the paper cutters to cut fabric, plastic, metal, wood, foam board, mat board, or other thick materials – these materials will dull the blades.



Mat Cutter

- The mat cutter is for cutting standard 4-ply mat board only.
- The mat cutter can accommodate mat board up to 32".

Paint, Paintbrushes, Glue, and Glitter

- Use the metal top tables for painting, gluing, and glittering.
- When finished painting, rinse all brushes, cups, and palettes in the slop sink with soap and water and return cleaned items to a Makerspace employee at the front desk.
- Before glittering, lay down brown craft paper on metal top tables to catch excess glitter.
- Conserve clean (not lumpy or gunky) glitter when possible by using scrap paper to funnel clean glitter back into the glitter container.



Sinks

- Don't wash excessive amounts of paint, glue, or glitter down sinks.
- Wipe excess paint, glue, or glitter into the garbage with paper towels before rinsing brushes, cups, or palettes in the sink.
- Clean out the sink area when finished rinsing and make sure drain is free of any blockages.

TRAINING REQUIRED

cricut

large vinyl cutter

large stack paper cutter

serger

multi material cutter

laminators

sewing machines

Glowforge laser

3D printers

Talk to a Makerspace employee about using these pieces of equipment, even if you've used them before.

3D Printers

- The Makerspace does not permit printing of guns, knives, or anything that
 - Looks like a weapon
 - Functions as a weapon
 - Could be a weapon
 - Is a weapon
- Make sure to conduct quality checks on your print before printing – your print must be a closed solid in order to print correctly.
- Consult with a Makerspace employee before attempting to 3D print.
- 3D prints are limited to 8 hours per print.



Glowforge Laser

- The Glowforge will cut and engrave wood, leather, paper, and plexiglas (acrylic).
- Materials must be no thicker than 1/4" and no larger than 12" x 20".
- All materials to be cut or engraved MUST be approved by the Makerspace prior to cutting.
- You are required to monitor the Glowforge for the duration of your cut and a Makerspace employee MUST supervise the operation of the Glowforge.
- The air filter must be turned on during your cut and left on after your cut for the same amount of time. For example, if your cut takes 2 minutes, the filter needs to run for those 2 minutes and another 2 minutes after, for a total of 4 minutes.

Cricut Maker

- The Cricut Maker can cut, score, and draw on a variety of materials including paper, stickers, vinyl, cardstock, fabric, and more.
- Let an employee know what material you'll be working with, and they will help you check out the correct blade, cutting mat, and other tools you may need for your project.
- Before cutting, determine whether your image or text should be mirrored.
- Single-color graphics without a lot of intricate detail cut best.

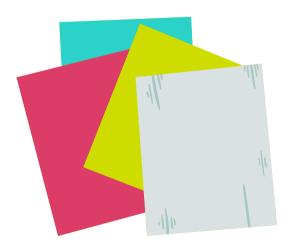


Large Vinyl Cutter

- The vinyl cutter is used to cut indoor and outdoor adhesive vinyl and heat transfer vinyl only.
- Tape smaller vinyl pieces to a carrier sheet (a sheet of poster board) before loading into the machine.
- Make sure you are cutting with the vinyl side up.
- Before cutting, determine whether your image or text should be mirrored.
- Single-color graphics without a lot of intricate detail cut best.

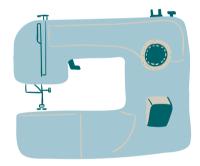
Large Stack Paper Cutter

- The large stack paper cutter is for cutting large stacks of copy paper and light card stock only.
- The large stack paper cutter can cut up to one ream (500 sheets) of copy paper at a time.
- Do not use the large stack paper cutter to cut mat board, poster board, fabric, plastic, metal, wood, or other thick materials – these materials will dull the blade.
- Raise cutter blade and stack press to accommodate height of paper stack.
- Adjust and lock black plastic arm to desired finished size and place paper stack onto bed of cutter flush against black plastic arm.
- · Lower stack press tightly against top of paper stack.
- Release and pull lever downward to cut paper stack.
- After cutting, raise lever into locked position.
- Raise stack press to remove cut paper stack.



Sewing Machines

- Do not sew leather or extra thick fabrics.
- Do not sew over pins pull out pins as you sew before they approach the presser foot.
- Do not pull or push fabric while sewing the fabric will automatically feed through the presser foot and feed dogs.
- Ask a Makerspace employee for help threading the machine.
- Consult with a Makerspace employee before changing any of the settings on the machine.
- Let a Makerspace employee know immediately if you are having a problem with the machine.



Serger

- Do not attempt to change the thread color or rethread loose threads.
- Before you begin, make sure a long 4" tail of overlocked thread is sticking out the back of the presser foot/feed dogs on the machine.
- Make sure you leave a long 4" tail of overlocked thread when you are finished using the machine.
- Let a Makerspace employee know immediately if you are having a problem with the machine.

Laminators

- Plug laminator directly into an outlet (not into an extension cord or surge protector).
- Consult a Makerspace employee before attempting to adjust heat settings.
- When a solid green light appears on the front of the machine, you are ready to laminate.
- Insert your paper evenly into the front of the machine using the paper guide on the left-hand side.
- Press the feed switch to the forward position to automatically feed your paper through the machine.
- Watch for the paper to completely exit through the back side and press the feed switch back to the neutral position.
- Press down and slide the cutter on the back of the machine to cut the laminated plastic and remove your laminated paper.
- Turn off the heat power button AND main power switch.
- Unplug the machine and replace the cover when cool (about 5-10 minutes).



Questions, comments, or suggestions? Get in touch with us! 10 AM - 7 PM, Monday - Friday 754 S Wabash, 2nd floor 312-369-7877 makerspace@colum.edu @makerspacecolum

The Makerspace is a resource for you. Please ask for help if you need it! Everyone starts somewhere.

We love feedback. Because we want to serve all students, we can't accommodate every individual request, but we always want to know how we can make the Makerspace more useful to you.

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