

GENERAL MAKERSPACE SAFETY

1. Makers must check in with the MakerHost, using their Makerspace Card to sign in/out each time they use the Makerspace. Advise the MakerHost of your project(s) and obtain approval for tool, equipment, and material use.
2. It is good safety practice to be courteous and considerate of others.
3. Notify the MakerHost if a violation of safety instructions is observed. You may save yourself or someone else from serious injury.
4. All projects to be done in the Makerspace must have the MakerHost's approval.
5. Makers must participate in mandatory orientation and training workshops in order to use 3D printers, laser cutters, CNC machines, and other equipment as identified by SD62. This equipment may not be used until tool certification training has been successfully completed. Makers must attend certification training in person. When using a tool that does not require certification, the Maker is certifying that they are capable of using that item in a safe and proper manner. Makerspace staff and MakerHost volunteers are available to assist in explaining operation of tools and equipment, and will make user manuals available upon request.
6. The Maker is under no obligation to use power tools or machinery. Hand tool operations can be substituted for any and/or all machine operations.
7. Makers must use the proper tool for the job.
8. Sharp tools are safest: the Maker shall use them whenever possible. Dull tools are dangerous because they are hard to control and require excess pressure by the operator.
9. Sharp edges or points of tools should be directed down and/or away from the body.
10. Makers must not lift anything in the lab that is too heavy; seek help from the MakerHost. The MakerHost will either employ more personnel or employ mechanical help such as a lever, dolly, jack, wheels, or rollers.
11. When lifting, keep your back straight and lift with your legs. Do not strain yourself; injury can occur easily.
12. Makers who are in doubt about the use of any tool or machine, or about any makerspace procedure, must ask the MakerHost for help.
13. Makers who feel ill or are on any medication that may affect their ability to operate machinery must inform the MakerHost before using any tools, equipment, or machinery.
14. The Makerspace provides the Maker with access to safety supplies in the Makerspace, including safety goggles, masks, gloves, First Aid Kits, and fire extinguishers.
15. The Maker must wear glasses and/or a face shield at all times in the Makerspace to prevent flying particles or corrosive substances from entering your eyes.
16. Makers may bring their own tools and materials and must clearly label them as their own. SD62 and the EMCS Society are not responsible for damage or loss of the Maker's belongings.
17. There is no storage available at the Makerspace. Please pack in/pack out all personal tools, equipment, materials, and projects.
18. Most tools and equipment are available to Makers on a first-come-first-served basis, for use in the Makerspace only. Please ask staff or volunteers for a full list of tools and equipment available.
19. Items used in the Makerspace are to be returned in the same condition as they were issued, barring normal wear and tear. All items must be returned clean. The Maker agrees to pay for the loss of or damage to any

items and further agrees to accept SD62's assessment of fair restitution for damage, dirtiness, delinquency, and/or loss of items in part or total. This restitution amount could equal as much as replacement cost of the item.

20. Items used in the Makerspace must be returned by the Maker to their original location. Storage units and spaces are labeled in order to facilitate the proper return of tools.
21. The Maker agrees to take precautions to avoid causing unnecessary mess or damage in the Makerspace. The Maker agrees to clean up their workspace in the Makerspace following use, returning the shared workspace to its original state. The Maker agrees to inform Makerspace staff or volunteers in the case that they are unable to return a work surface, tool or equipment to its original state.
22. The Maker acknowledges that the Makerspace is only able to provide consumable materials on a limited basis and most consumables will be available for purchase. The Maker agrees to avoid waste of consumable supplies and materials.
23. All breakage or damage to tools, equipment, or machinery must be reported to the supervisor immediately.
24. All accidents and injuries, no matter how slight, must be reported to the MakerHost immediately.
25. The Maker must wear safe clothing when working in the Makerspace. The Maker must fasten or remove loose clothing before operating any machine. The Maker must roll long sleeves above the elbows. Apron fastenings should be made such that they will break if the apron becomes entangled in a machine. Hoodie strings must be tucked in. Feet should be fully covered with proper treaded footwear.
26. Before operating machinery, the Maker must remove jewelry (bracelets, rings, chains, and beads) and other accessories that may be hazardous.
27. The Maker's hair must be tied back or tightly covered when working with machines. Long, loose hair can easily be caught in revolving machinery and ripped out, causing serious scalp laceration.
28. Only the operator may start and stop a machine. After the machine is turned off, they should control the material and stand by until the machine has stopped running.
29. Wearing gloves while working with most woodworking machines is prohibited. Gloves hinder the Maker's dexterity and may get caught in moving machinery.
30. The Maker must keep machine guards in proper position at all times, unless the MakerHost has approved their removal for a **special setup**.
31. The Maker must never overload or force a machine. Overloading or forcing any machine is dangerous and is not permitted.
32. The Maker must only use material provided or approved by the MakerHost.
33. The Maker must not use used materials of any kind in any milling process. They may contain metal or other particles that could cause injury or damage machines.
34. The Maker must keep rags away from machines that are in operation.
35. Rags that have absorbed any amount of linseed oil, solvents, or finishing products must be disposed of in an approved covered metal container as a precaution against spontaneous combustion.
36. The Maker must know the location of fire extinguishers and exits in case of emergency.
37. Hang nothing on fire extinguishers. The area around them should be kept clear so that they may be reached without delay if fire breaks out.

38. If a machine makes an unusual sound, is out of adjustment, or is in need of repair, shut off the power at the machine and report it to the MakerHost immediately. Only machines in good repair may be operated.
39. Makers must never talk to or distract someone using a machine. Such distractions can cause the operator to make serious mistakes and may lead to injuries; likewise, the Maker must not allow attention to be diverted while they are using a machine.
40. Machines must come to a full stop with the power turned off before cleaning or adjusting.
41. If the Maker sees oil, grease, or any other liquid on the floor, they must wipe it up immediately to prevent others from slipping.
42. Floors, aisles, and passageways should be kept clear of pieces of wood, tools, and materials. Objects on the floor may cause someone to slip or fall.
43. Makers must always sweep scraps from their workbench or table with a brush or piece of wood rather than with their hands, as there may be sharp or jagged particles among the scraps.
44. Makers must always carry long objects, such as metal rods and long boards, with the front end high to avoid striking someone.
45. Makers must report any odor of gas or fumes in the room to the MakerHost. Gas fumes may cause illness or explosion.
46. All portable electric tools and appliances must be disconnected when not in use, making adjustments, when inserting cutters or bits, or when changing sandpaper.
47. When unplugging an electric tool, pull on the plug instead of the cord.
48. Makers must ensure their hands are dry before touching electrical switches, plugs, or receptacles. If hands are wet, they may receive a severe shock and serious burns.
49. If it is safe and necessary to use an extension cord, the Maker must ensure that it lies flat on the floor.
50. When using air under pressure, the Maker must ensure the air stream is not directed toward them or any other person.
51. Makers with prescription eyeglasses should wear them; eyestrain is likely to cause an accident.

GENERAL MAKERSPACE SAFETY TEST

1. Eye protection must be used to:
 - a) improve your vision.
 - b) prevent eyestrain.
 - c) prevent flying particles, sawdust, foreign objects or corrosive substances from entering your eyes.
 - d) magnify small objects.

2. Floors, aisles, and passageways must be kept clear of wood, tools, material, oil or grease spots, and other objects:
 - a) because they may cause someone to slip or trip and fall.
 - b) unless you are in a hurry.
 - c) because they are unsightly.
 - d) because they cause more work for the custodians.

3. Rags wet with linseed oil, solvents, or finishing products must always be:
 - a) folded neatly and placed on a shelf.
 - b) discarded in an approved metal waste container with a lid, to prevent spontaneous combustion.
 - c) wadded up and thrown in the trash.
 - d) left on the floor.

4. Loose clothing, jewelry and long hair must be securely fastened or removed:
 - a) before operating any machine.
 - b) before the end of class.
 - c) only when you are assisting the supervisor.
 - d) only when it will not affect your fashion look.

5. Carry long objects:
 - a) like a spear.
 - b) with the back end high.
 - c) with the front end high.
 - d) with one hand.

6. You must **not** talk to, or distract the attention of, a person operating a machine because:
 - a) conversation slows down the flow of work.
 - b) it is not polite.
 - c) the distracted operator or others may be injured.
 - d) it is too noisy for conversation in the makerspace.

7. All accidents and injuries, no matter how slight, must be:
- a) ignored.
 - b) reported to health services immediately.
 - c) reported to the supervisor immediately.
 - d) None of the above.
8. Wearing gloves when operating machinery is:
- a) considered a safe practice on a cold day.
 - b) safe, provided the gloves are not made of leather.
 - c) permissible if the machine is dirty.
 - d) not a safe practice because the gloves may get caught in moving parts and pull your hand into the machine.
9. All **special setups**, including removal of any safety equipment, must be:
- a) checked by another student.
 - b) approved by the supervisor.
 - c) need not be approved if you know what you are doing.
 - d) done quickly while no one is watching.
10. When sweeping scraps from a machine or workbench:
- a) use your hands to show how tough you are.
 - b) use a piece of wood or a brush since there may be sharp or jagged particles among the scraps.
 - c) use compressed air.
 - d) leave the scraps to show how hard you are working.
11. When lifting a heavy object you should:
- a) get help.
 - b) keep your back straight and lift with your legs.
 - c) use a lever, dolly, jack, wheels, or rollers.
 - d) do one or more of the above, depending on the situation.
12. When you enter a lab or class session other than your own,
- a) you may start working immediately.
 - b) you must get permission to work from every instructor and instructional aide prior to working.
 - c) you must report to the instructor and aide in the room in which you are working.
 - d) you can't work; this is not allowed.

13. The following are causes of accidents in the wood lab:

- a) Rushing or hurrying
- b) Overconfidence
- c) Fatigue
- d) Ignorance
- e) All of the above

14. Sharp edge tools are

- a) a pipe dream.
- b) scary.
- c) more dangerous than dull edge tools.
- d) safer to use than dull edge tools.

15. Compressed air may be used to dust yourself off under the following circumstances:

- a) never.
- b) on Mondays and Wednesdays only.
- c) if no one is looking.
- d) if you're wearing pants.