

san josé public library

# TEEN HQ

## SAFETY GUIDE



[sjpl.org/TeenHQ](http://sjpl.org/TeenHQ)

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# TeenHQ RULES

## TeenHQ Room

- ▶ TeenHQ is open according to the posted schedule.
- ▶ TeenHQ is reserved for use by library patrons between the ages of 12 and 18.
- ▶ Children and adults are permitted to browse the collection in the Reading Room, but they may not enter the Hangout Zone without staff permission.
- ▶ Non-teens wishing to browse the manga collection in the Hangout Zone may do so with permission from the staff member at the Teen Desk.
- ▶ Library users should respect the education needs, rights, and privacy of those using TeenHQ.
- ▶ Library staff will monitor and address behavior problems.

## Makerspace

- ▶ The Makerspace is open according to the posted schedule.
- ▶ Adult customers and children under 12 are restricted from use of the Makerspace unless use is approved by library staff.
- ▶ All users must attend mandatory training, complete a usage agreement, and sign a waiver before using the Makerspace.
- ▶ Consumption of food and drink is not allowed in the Makerspace.
- ▶ Users must follow posted guidelines for use of the Makerspace, including safety and cleanup procedures.
- ▶ All users assume responsibility for complying with applicable copyright laws.

## Recording Studio

- ▶ Use of the recording studio is available by appointment.
- ▶ Adult customers and children under 12 are restricted from use of the Recording Studio unless use is approved by library staff.
- ▶ All users must attend a mandatory training, complete a usage agreement, and sign a waiver before using the Recording Studio.
- ▶ Consumption of food and drink is not allowed in the sound booth or at the production table.
- ▶ Sound booth windows will be kept clear of obstruction.
- ▶ Occupancy of the sound booth may not exceed 5 people.
- ▶ Users must provide their own storage devices to save or export files.
- ▶ All files saved to the Library's computers will be erased after each session.
- ▶ The Library is unable to provide one-on-one production or recording assistance.
- ▶ All users assume responsibility for complying with applicable copyright laws.
- ▶ Advanced recording equipment is available to use in the Recording Studio upon request.

# BASIC SAFETY

- ▶ All Makers must tie back long hair, avoid wearing loose clothing or dangling accessories, and wear closed-toe shoes while in the Makerspace.
- ▶ Makers may only use or help others with machines they are trained on. Each Maker will receive a color badge indicating what trainings have been completed.
- ▶ A staff member must be present in the Makerspace at all times a Maker is present.
- ▶ First aid kit, sharps container, and glove dispenser are located in the Makerspace, along the far right wall.
- ▶ Always notify Library staff whenever a situation requiring First Aid occurs!

# FIRST AID

Adapted from the American Red Cross: [Adult First Aid/CPR/AED Ready Reference \(r.2016\)](#)

## Checking a responsive adult

1. Interview the person (or bystanders) using SAMPLE:
  - a. Signs and symptoms
  - b. Allergies
  - c. Medications
  - d. Pertinent medical history
  - e. Last food or drink
  - f. Events leading up to the incident
2. Do a head-to-toe check
  - a. Look and feel for signs of injury including pain, bleeding, cuts, burns, bruising, swelling or deformities.
3. Provide care for any conditions found.

## Check an adult who appears to be unresponsive

1. Shout, tap and shout again while checking normal breathing.
  - a. Gasping is not normal breathing.
  - b. Check for no more than 5-10 seconds.
2. If the person responds but is not fully awake:
  - a. Send someone to call 9-1-1 and obtain an AED and first aid kit.
  - b. Do a head-to-toe check.
  - c. Place the person into the recovery position if there are no apparent injuries.
3. If the person does not respond and is not breathing or is only gasping:
  - a. Send someone to call 9-1-1 and obtain an AED and first aid kit.
  - b. Immediately begin CPR and use an AED as soon as possible.

## External Bleeding

1. Cover the wound with a sterile gauze pad and apply direct pressure until the bleeding stops.
  - a. If blood soaks through the first gauze pad, put another one on top and apply additional direct pressure.
2. Apply a roller bandage.
  - a. Check for circulation (feeling, warmth and color beyond the injury)
  - b. Wrap the bandage around the wound several times to hold the gauze pad(s) in place.
  - c. Tie or tape the bandage to secure it.
  - d. Check for circulation (feeling, warmth and color) beyond the injury and loosen the bandage if necessary.
3. If the bleeding does not stop, call 9-1-1 if you have not already and give care for shock if necessary.

## Burns

1. Stop
  - a. *Thermal burn*: Remove the source of the heat.
  - b. *Chemical burn*: Remove contaminated clothing. Flush the area with cool water for 20 minutes (wet chemical) or brush the chemical off and then flush with cool water for 15 minutes (dry chemical).
  - c. *Electrical burn*: Turn off the power at its source. Do not touch the person until the power has been turned off.
2. Cool
  - a. Use cool or cold water that is suitable for drinking .
  - b. Cool the burn for at least 10 minutes.
3. Cover
  - a. Cover the burn loosely with a sterile dressing.

## Check an adult who appears to be unresponsive

1. Have the person lie flat on their back.
2. Control any external bleeding.
3. Cover the person with a blanket to prevent loss of body heat.
4. Do not give the person anything to eat or drink, even though they may complain of thirst.
5. Provide reassurance, and help the person rest comfortably.
6. Continue to monitor the person's condition and watch for changes in level of consciousness.

# QUICK START & CLEAN UP GUIDES

## 3D Printer: UP Mini

### What does it do?

The UP Mini printer can be used to print 3D objects. At the TeenHQ Makerspace, we print objects using PLA filament, a type of plastic made from corn sugars. You can use online software such as Tinkercad or Onshape to create your own custom 3D designs on any TeenHQ computer, or you can download a pre-made design from free online libraries such as Thingiverse.

### What do I need to know?

1. The printer nozzle can become very hot during a print job. Please be careful not to touch it.
2. The printer parts can also move very fast. Please be sure not to let anything (including your hands!) get in the way during a print job.

### How do I use it?

1. Before using the 3D Printer, use any computer in TeenHQ to design your product using Tinkercad, Onshape, or any other 3D modeling program. Once your design is complete, save the **STL** file onto a USB and transfer it to a Makerspace laptop. Alternatively, you can locate a pre-made **STL** design on [thingiverse.com](http://thingiverse.com) and save it to your USB.
2. Turn on the 3D Printer using the power switch at the rear right side of the machine.
3. Open the UP! software from the desktop.
4. Choose "3D Print" > "Initialize."
5. Check that the nozzle height is set at 121.5 (in the "3D Print" > "Maintenance" window).
6. Thread the filament through the plastic guide tube and into the printer head.

7. Choose "3D Print" > "Maintenance" > "Extrude" to heat the filament and move it through.
8. Choose "Open" to upload your design into the software and rotate, scale or move as needed.
9. "Place" your design, click "Move," choose "-1" in the drop-down menu, and then click the "Z Axis" button twice to move it down twice to land on the platform.
10. Go to "3D Print" > "Print Preview" and choose your preferences to see the estimated time to print.
11. If the print job will finish within your reservation time, continue to "3D Print" > "Print" and print using the same preferences. If the print job will take too long, please modify your print preferences or see a staff member for assistance.
12. If a problem occurs during the print job, ask a staff member for troubleshooting assistance.
13. When the print job is finished, remove the object from the platform and use the provided small pliers to trim off any supports or extra filament from the object.
14. Turn off the 3D printer.
15. Clean up any extra filament and make sure the printer and surrounding area is returned to its original, clean condition for the next Maker.

# CNC Machine: Nomad Pro 883

## What does it do?

The Nomad Pro 883 can be used to cut 3D objects into a variety of materials, including wood, plastic and small metal parts. You can use Adobe Illustrator, or other CAD modeling software on any of the TeenHQ computers to create custom designs for your CNC project. (CNC stands for "Computer Numerical Control," which means the computer tells the machine how to cut your material into a precise shape.)

## What do I need to know?

1. Always wear safety glasses when operating the Nomad, even if the protective door is closed.
2. The protective door should remain closed unless the machine is stopped and you need to change the cutter or stock material.
3. The cutters in the machine are sharp and should be treated with care, even when they are not mounted in the machine.
4. Please keep all body parts and other items outside the machine while it is running; it is possible to pinch or cut your hand as the cutter moves around.
5. The power button located at the bottom right corner of the front of the machine will stop the machine immediately if needed.

## How do I use it?

1. Before using the CNC machine, use any computer in Teen HQ to design your product using Adobe Illustrator or CAD software. Carbide Motion runs G-Code files, but you can also use Carbide Create to export **DXF** and **SVG** files to the machine. Once your design is complete, save it onto a USB and transfer your file to a Makerspace laptop.
2. Put on your safety glasses.
3. When machine is off, tape your material to the platform using double-sided tape.
4. Check to make sure the proper bit is in the machine, then close the door. If the correct bit is not in the machine, please seek assistance from staff to change it.
5. Turn the machine on and open the Carbide Motion software from any Makerspace laptop.
6. Connect Cutter and load your file.
7. Allow machine to home and measure tool before setting zero in the "Jog" screen.
8. Zero should be set with the spindle in the front left corner of the material, just above the surface (a piece of paper should barely slide under the tip).
9. Begin your project.
10. Allow the project to finish cutting completely before turning off the machine and opening the door.
11. When the machine is off, use the shop vac to vacuum out any material scraps from the interior of the machine.
12. Please leave the area as clean as when you found it for the next Maker.

# Power & Hand Tools

## What does it do?

The Makerspace offers a variety of tools to use with your craft and construction projects. These tools include power tools (such as an orbital sander and drill) and hand tools (such as a hammer, mallet and staple gun).

## What do I need to know?

1. Always be aware of your surroundings. Do not make sudden movements when holding tools, as you may injure those around you.
2. Be very careful when putting tools down while not in use. Ensure they are placed away from any table edges and kept in plain sight.

## How do I use it?

Each tool has its own purpose and use guidelines. Please see a staff member for more information. Tools available in the Makerspace include:



Cordless Drill



Staple Gun



Hole Saw Kit



Orbital Sander



Mallet



Rotary Hand Drill



Dremel Kit



Hammer



Riveter

## Serger: Babylock Imagine

### What does it do?

The Babylock Imagine serger can be used to add high-quality coverstitching to your sewing projects. The Makerspace also offers a limited amount of fabric, thread and buttons to use in your projects.

### What do I need to know?

1. When beginning your serging project, check to make sure your needle is not bent or damaged.
2. Keep watch on the needle while in use, but be careful not to touch the needle or any other moving parts.
3. The serger should be turned off and unplugged any time it is not in use.
4. The serger should also be turned off any time you are switching out a needle, thread or any other part.
5. Keep the work area around the serger and the foot pedal clear.
6. Allow the serger to move the fabric; pushing or pulling the fabric in the machine can cause the needle to break.
7. When not actively serging, be sure to move the foot pedal to a safe location so it does not accidentally trigger.

### How do I use it?

1. Before using the serger, check to make sure all needles are threaded correctly.
2. If you wish to use a different color thread, you will need to re-thread the serger using the quick reference threading guide.
3. Turn on the serger and ensure the foot pedal is plugged in.
4. Select your stitch using the "A, B, C, D" dial on the front of the machine.
5. Before placing your fabric in the machine, hold the threads to the left of the needle and gently press down on the foot pedal to begin a thread chain.
6. When you are ready, place the fabric at the toe of the presser foot.
7. Press down on the foot pedal to begin serging the fabric.
8. At the end of your seam, sew off the edge of the fabric and serge for five to six more inches to create another thread chain before cutting the thread.
9. When finished, please turn off the serger and remove your materials from the space so the next Maker can begin.

# Sewing Machine: Babylock Rachel

## What does it do?

The Babylock Rachel sewing machine can be used to complete high-quality sewing projects. The Makerspace also offers a limited amount of fabric, thread and buttons to use in your projects.

## What do I need to know?

1. When beginning your sewing project, check to make sure your needle is not bent or damaged.
2. Keep watch on the needle while sewing, but be careful not to touch the needle or any other moving parts.
3. The sewing machine should be turned off and unplugged any time it is not in use.
4. The sewing machine should also be turned off any time you are switching out a needle, bobbin, presser foot or any other part.
5. Keep the work area around the sewing machine and the foot pedal clear.
6. Allow the sewing machine to move the fabric; pushing or pulling the fabric in the machine can cause the needle to break.
7. When not actively sewing, be sure to move the foot pedal to a safe location so it does not accidentally trigger.

## How do I use it?

1. Before using the sewing machine, remember to check both the bobbin and the top spool to see if they both have the thread color you want.
2. Check to make sure the foot pedal is plugged in and turn on the machine.
3. If needed, wind your bobbin and load it into the machine. (Remember to turn the machine off again before installing the bobbin under the top needle.)
4. Look at the front of the machine to select a stitch. If needed, replace the presser foot with the appropriate foot indicated on the LCD screen.
5. If you wish to automatically sew reverse/reinforcement stitches, choose the automatic option.
6. Adjust the stitch length and width if needed.
7. Press the needle position button once or twice to raise the needle.
8. Position your fabric under the presser foot and lower the foot.
9. Choose the appropriate sewing speed using the speed controller on the front of the machine.
10. Begin sewing using the foot pedal. If the foot pedal is not being used, use the Start/Stop button.
11. If you wish to secure your stitching and did not choose the automatic option, use the reverse button to sew 3 to 5 reverse/reinforcement stitches at the end of your row.
12. When you are finished stitching, stop sewing and raise the needle and presser foot lever.
13. Pull the threads to the left side of the needle and cut the threads.
14. When finished, please turn off the sewing machine and remove your materials from the space so the next Maker can begin.

# Soldering Iron: Hakko FX888D-23BY

## What does it do?

The soldering iron can be used to join together small pieces of metal or wire for a variety of projects, such as circuit boards or jewelry-making.

## What do I need to know?

1. Always assume the iron is hot! This will help you and others avoid painful burns.
2. Keep a constant watch on the soldering station while plugged in, whether the iron is heating up, in use or cooling down.
3. The iron should always be turned off and unplugged when not in use.
4. The iron should only be set down in its station and not on any other surface.
5. Remember to clean the iron tip before each time you add more solder, as well as after every 30 seconds of non-use.
6. Please wear safety glasses for your protection when using the soldering station.
7. Please remove all rings, bracelets, watches or other accessories from your hands and wrists when using the soldering iron.
8. Be careful when breathing in around solder smoke; please use the table fan to help ventilate the area.
9. Please wash your hands immediately after using solder, especially before eating or touching your face.

## How do I use it?

1. Before beginning your project, ensure the iron is stable inside its station and flammable materials are removed from the workspace.
2. Remove all accessories on your hands and wrists.
3. Put on your safety glasses.
4. Make sure the soldering station is located completely on the soldering mat.
5. Plug in the soldering iron and set it to 650. Stay with the iron while it heats up.
6. Before using the iron to heat solder, clean the tip of the iron in the brass cleaning station.
7. Use the iron to heat solder and join together the pieces of your project.
8. After each section is complete, return the iron to its station.
9. Each time the iron is removed and/or after 30 seconds of non-use, remember to clean the iron again before melting more solder.
10. When finished, please turn off the soldering iron and allow at least 15 minutes for it to cool.
11. Please do not leave the Makerspace until the iron has finished cooling and has been checked by a staff member, or another Maker has arrived to use the iron and a staff member has cleared you to leave.
12. After leaving the station, please wash your hands and return your safety glasses.
13. Please leave the area as clean as you found it for the next Maker to begin soldering.

# Vinyl Cutter: Cricut Explore One

## What does it do?

The Cricut Explore One can be used to cut designs, shapes and letters into vinyl or paper.

## What do I need to know?

1. Keep all body parts away from the machine while in use.

## How do I use it?

1. Plug the USB cord from the Cricut into the Makerspace laptop.
2. Ensure at least 12" behind the machine are clear of any obstructions.
3. Turn on and open the Cricut.
4. Remove the clear protective covering from the Cricut mat and gently place it to the side.
5. Place your desired material in the top left corner of the mat, inside the grid.
6. Load the mat into the machine.
7. Turn the dial to indicate the material you are using for the project.
8. Visit [cricut.com/design](https://cricut.com/design) to choose and/or create your project.
9. If you have already created a custom design and it is a [JPG](#), [BMP](#), [PNG](#), [GIF](#), [SVG](#) or [DXF](#) file, you may upload it into the Design Space at [cricut.com/design](https://cricut.com/design). Please see a staff member for assistance if needed.
10. Remember to keep your design within the dimensions of your chosen material piece.
11. When you are ready to cut, click the green "C" button at the top right of the toolbar.
12. Hit "Go" in the bottom right corner of the screen, and follow the on-screen prompts.
13. Once the cutting is finished, unload the mat.
14. Remove the material from the mat by gently bending down a corner of the mat and peeling the material off.
15. Replace the protective covering over the mat to preserve the adhesive.
16. Throw away any small scraps, and place large pieces of material back into the Paper Crafts box for future Makers to use.
17. When finished, please manually close the Cricut doors, power it off, and log out of the laptop so the next Maker can begin.