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north canton public library

access instructions

North Canton Public Library Mini Makerspace:

CR 6-SE 3D Printer

The North Canton Public Library has a CR 6-SE 3D Printer by Creality. This is the device that will be used to print **.STL** files submitted to the Library. Currently, the Library does not allow hands-on access for the public to the 3D printer. However, you may view the 3D printer in the library's Reference Department.

Here is some basic information about the device the North Canton Public Library owns.

CR 6-SE has a printing surface of 235mm x 235mm x 250mm, or just over 9in x 9in x 9in. As best practice the Library does not accept 3D submissions larger than 203mm x 203mm x 203mm or 8in x 8in x 8in.

CR 6-SE has **Auto Bed Leveling System** which is an intelligent leveling system, it is self-leveling. This easy-to-use system positively impacts the quality of the prints provided by the machine. Makes it a great device for library use, because it is a reliable printer.

Feel free to view Creality's promotional video about the CR 6-SE.

North Canton Public Library Makerspace:

3D Printing Guidelines

The North Canton Public Library Makerspace 3D printer is meant to be used for entertainment purposes only to print smaller items, rapid prototypes, and trinkets for patron enjoyment. The service is not intended for manufacturing purposes, the Library reserves the right to refuse mass amounts of identical objects. Users of the Library's Makerspace agree to respect any and all applicable copyright laws and licensing agreements. Furthermore, users agree not to submit any 3D designs that violate any local, state, or federal ordinances, regulations, or laws.

3D Printing Guidelines:

1. Any 3D modeling software (TinkerCAD, FreeCAD, SketchUp, Blender, Meshmixer, Fusion 360, 3D Build, 3D Slash) may be used to create a design if the file can be saved or exported from the program in a *.STL* (Stereolithography) format and is no larger than 25 MB. Please refer to the recommended sites sheet for more information about modeling software.

2. The printing surface is limited to no greater than 203.2 x 203.2 x 203.2, which is 8" x 8" x 8".

3. Upon submission, Library staff will attempt to orient and select the appropriate printer settings to optimize printing.

4. The Library and library staff will not be responsible for the creation of 3D files. Reference staff will assist in the use of 3D modeling software where applicable. Please find the 3D Modeling Software recommendation sheet for more information.

5. The North Canton Public Library's 3D printers may be used for lawful purposes only and meet the library's code of conduct. Patrons are not permitted to use the Library's 3D printers to produce materials that:

1. Violate local, state, or federal laws or regulations;
2. Look like, function as, or appear to function as weapons or parts thereof;
3. Appear unsafe, harmful, dangerous, or that otherwise pose a threat to the health or safety of others;
4. May be construed as obscene or otherwise inappropriate for the Library environment; or
5. Potentially violate the intellectual property rights of another.

6. Use of the 3D printer will be provided on a first-come, first-serve basis. Prints created and submitted during library programming will take precedence.

7. Individuals may submit only one file at a time for printing, and one file per week.

8. Files containing more than one object are permitted, as long as the objects fit in the printing parameters and meet the size and time requirements.

9. Only designated Library staff will have hands-on access to the 3D printer.

10. Items printed from the library's 3D printer and not picked up within 14 days after being printed become the property of the North Canton Public Library and will no longer be eligible to be picked up. *Please note: that charges may still be attached to the patron account for the print request.*

11. Items must be paid for in full at the Patron Services Department. Items must be picked up by the individual who requested them to be printed.

12. Patrons ages 12 years old and up are permitted to submit .stl files for printing at this time.

13. Please note that the North Canton Public Library reserves the right to take pictures of projects being printed on its 3D printers. Therefore, the North Canton Public Library cannot guarantee the security of patrons' intellectual property rights such as copyright or trade secrets.

14. By submitting a .STL file for printing you, the patron, accepts the North Canton Public Library's guidelines stated above.

Parameters for 3D Printing:

1. Files for 3D printing should be submitted in .STLfiles (Stereolithography) formatting.

2. .STL files can only be submitted via email to reference@northcantonlibrary.org.

3. .STL files can be no larger than 25MB, and the final print cannot take longer than 6 hours to print.

4. .STL files are subject to copyright laws, those in violation will not be printed.

5. Users have a choice of the following PLA filament colors: Black, Blue, Red or White.

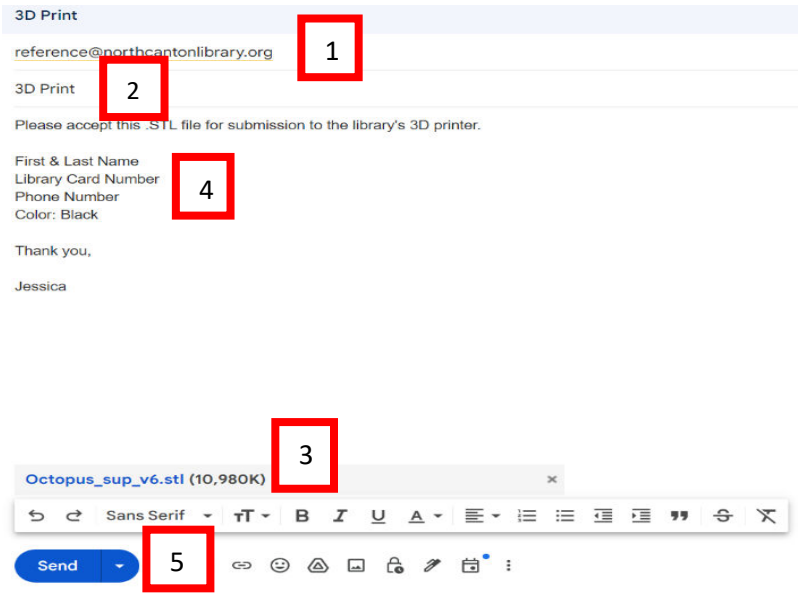
6. Completed prints will be available between 1-2 weeks or 14 days post-submission. Staff will notify should there for any issue be a longer time frame for completion of 14 days.

North Canton Public Library Makerspace:

Submitting a Print & After a Print is Submitted

Submitting a 3D Print:

The North Canton Public Library will be accepting .SLT (Stereolithography) files for printing on the library's 3D printer. Please use the following steps to successfully submit a file for library staff to review.



1 Open your personal email and start a new message to reference@northcantonlibrary.org

2 Make the subject heading "3D Print."

3 Attach the .STL file to the email for printing.

4 In the body of the email state your first & last name, library card number, phone number, and filament color option for the print. (Black, Blue, Red, or White)

5 Hit send.

Expectations After a Print Has Been Submitted:

Once you have submitted a .STL file for printing a staff member of North Canton Public Library will contact you within 48-72 hours to confirm your submission request or to fill in any missing information during the submission process.

Once the request has been confirmed a staff member will work on setting up the file for printing. *Please note: that should the file submitted not comply with the user guidelines library staff will inform you.*

Once your submission has been confirmed the library will start your print within the next 48 hours, based on the current processing time. *Please note: that 3D prints that are for library programming do take precedence over submitted prints.*

The library will attempt the file for printing up to three times before requesting the print be reworked for resubmission. *Please note: The Library may refuse to print 3D models that clearly contain errors or that are, as determined by Library staff, beyond the capabilities of the Library's equipment.*

***Submissions that fail.** The library will do a 3-strike attempt with printing. After the first two attempts, the library will contact you to confirm a third attempt. If the file still fails, the file will need to be reworked before any additional attempts are made. If you need help identifying potential issues in your submission, please contact the library to request a Tech Time appointment.

Once your print is completed a staff member will call you. Completed prints will be available at the Patron Services Department, please stop at the service desk for help. Completed prints must be picked up within 14 days of completion.

How to Submit a 3D print to the library:
https://youtu.be/LRI7Uf-bAvA

North Canton Public Library Makerspace:

3d Printing Instructional Videos

Public Support Videos:

How to Submit a 3D print to the library:

https://youtu.be/LRI7Uf-bAvA

Service tutorial CR 6 - SE leveling and printing:

https://youtu.be/QRyJRGzTGYE?feature=shared

Changing the Filament:

https://youtu.be/guCrCFXtwCA?feature=shared

Printing Process of CR 6 SE:

https://youtu.be/ArRmW5xIOe0?feature=shared

North Canton Public Library Makerspace

3D Design Websites with Free STL Files

The North Canton Public Library does not endorse or sponsor the following sites but offers them as a resource for use if interested in looking for completed projects to print on the library's 3D printer.

1. ***Cults 3D***

   Cults 3D hosts a large variety of STL files, sorted by category, including architecture, gadgets, games, tools, and jewelry. If you're looking for a file in one of these areas, chances are you'll find it on Cults. www.cults3d.com/en

2. ***Free3D***

   Free3D is all about – you guessed it – free 3D files. Not all are STL files, but that doesn't mean there aren't plenty to choose from. Here, however, you'll mainly find STL files geared towards hobbyists or more casual 3D printing users. If you're looking for professional applications, you may need to look elsewhere. www.free3d.com

3. ***Pinshape***

   Pinshape's mission is to make 3D printing simple and fun! This easy-to-use platform allows users to explore, share, and download high-quality 3D printable designs. The mission is to create makers and creators with innovative designs of all experience levels, who ultimately help shape the future of 3D printing. www.pinshape.com

4. ***Printables***

   Formerly known as Prusaprinters.com, Printables is one of the fastest-growing STL file repositories. In addition to thousands of downloadable files, the site also has great community engagement, and regularly runs content to discover and spotlight amazing 3D designs. www.printables.com

5. ***STLfinder***

   STLfinder lacks the polished overview of other sites out there, but its simplicity is a benefit. Just type whatever you're looking to print into the search bar (essentially the only thing populating the home page), and you're good to go. www.stlfinder.com

6. ***Thingiverse***

   Perhaps one of the most well-known repositories, Thingiverse offers a wide variety of both for sale and free STL files. Its UI is clean and easy to use, and it contains thousands of user-created designs and models, which run the gamut, from toys to tools. www.thingiverse.com

7. ***Yeggi***

   Yeggi functions predominantly as a search engine for free 3D design and STL files, of which it is home to more than 2 million. Searching on Yeggi is a slightly more refined experience than other STL searching sites, thanks to filters and other options that enable you to home in on exactly what you're looking for. www.yeggi.com

North Canton Public Library Makerspace:

Free 3D Modeling Software

The North Canton Public Library does not endorse or sponsor the following sites but offers them as a resource for use if interested in looking for software to learn 3D CAD design.

3D Slash

3D Slash is ideal for complete beginners, 3D Slash feels less like a conventional 3D modeling software tool, and more like a friendly, interactive 3D world where you can create. This program is well thought out for non-designers, meaning the learning curve is much easier than other programs. Beginners will still find the features intuitive and user-friendly. 3D Slash is free for the standard version, with a small monthly cost for Premium.

Blender

Blender is the most popular 3D design software, Blender has a huge, active community who share their .stl files and 3D models as well as information online. Blender is a 100% free 3D modeling software tool that is open source, giving users the freedom to create just about anything with its huge range of tools. Blender even comes with an integrated game engine, as well as detailed sculpting tools and video editing capabilities. This is NOT for beginners.

Fusion 360

Fusion 360 was created for educational institutions. Fusion 360 is yet another 3D software created by Autodesk. It's undoubtedly a 3D software modeling tool for experts, however, it is user-friendly enough for an educated beginner to be able to use. Packed to the brim with innovative features, Fusion 360 is a very collaborative 3D software that allows users to share .stl files via the cloud to collaboratively edit and optimize models. If you've got some experience, or looking to level up your 3D design skills, this is the perfect 3D software for you.

Meshmixer

Meshmixer is one of Autodesk's 3D software. Meshmixer differs from other programs in that it enables you to edit existing models with a variety of useful tools including animation, hollowing/filling, and tools for repairing models. It's perfect for beginners who want to modify their designs, as well as experts who need to optimize their industrial designs. This makes it a very useful software for beginners and experts alike, allowing them to polish their models so that they're ready for 3D printing.

TinkerCAD

TinkerCAD is one of the many 3D software tools offered by 3D CAD software giant Autodesk. TinkerCAD is perfect for beginners who want to play around with 3D design software and maybe make something cool. You can then export your models as .stl files. TinkerCAD is used in schools across the United States because of it educator mode that allows classroom set ups for large groups of students working on CAD programming.

North Canton Public Library Makerspace:

Button Makers

Button Makers:

Size 2.25 inches

Figure 1-2.25" Button Maker

Size 1.25 inches

Figure 2-1.25" Button Maker

Punch Cutters:

Punch Cutter-Graphic Punch

Figure 3- 2.25" Punch Cutter

Figure 4- 1.25" Punch Cutter

Button Maker

Materials:

- Shell: A solid piece of metal that is the base of every button image and is pressed into the pin back.
- Mylar Circle: A clear piece of plastic that protects the image that you are turning into a button.
- Pin Back: This is the backing of every button that can be temporarily fastened to the surface of a garment using a pin.

Shell

Shell from the side

Mylar circle

Pin back

Getting Started: Collect the Materials

1. The button maker. The library has both a 1.25-inch and a 2.25-inch button maker.
2. Punch cutter.
3. Correct shell, mylar circle, and pin backing.
4. Image you are turning into a button.

Getting Started Using the Punch Cutter:

1. Print an image from one of the public computers or come with a photograph or image ready to cut.
    a. For the sizing guide please find it located:
2. Select the correct punch cutter needed, sizes are 1.25 or 2.25.

3. Slide the image or photograph through the front of the punch cutter until you see the image in the circle.
    a. The paper around the image or original image can be no bigger than 4 inches wide to fit into the punch cutter.
    b. If the image does not fit the library has a small paper cutter or scissors available.
4. Once the image is in the desired place press down on the red handle to cut.
5. Place your finger below the image. Push up on the paper with your finger to remove the image (in the 2.25 punch cutter) or push up on the silver cylinder to remove the image (in the 1.25 punch cutter).

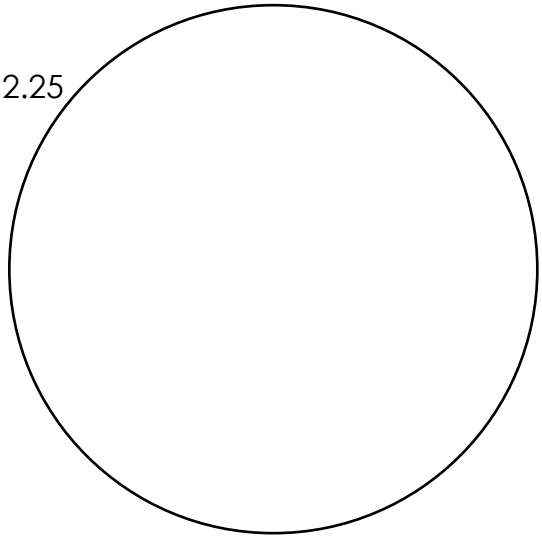
Putting the pieces together:

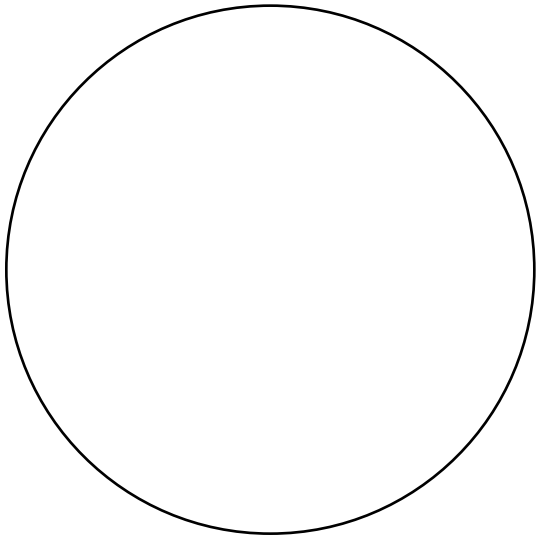
Select the button maker size that you need. (1.25 or 2.25)

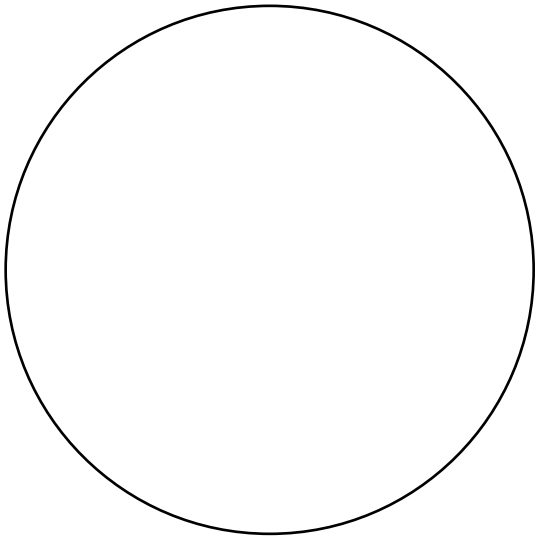
1. Insert in this order Shell (with the ridges down), Personal Graphic/Photography/Image, and Mylar circle into Shallow Die of Button Maker.
    a. Best Practice is to place the button maker perpendicularly (from left to right) in front of you while working. b. Place the image on so right side up so that you can read or understand the image or graphic.
2. Swivel the Base and Pull the Handle Down
3. Insert Pinback into Button Maker's Deeper Die
    a. Place pinback so that the pin is perpendicular across (left to right) with the pin being closer to the top side of the circle.
4. Swivel Base Again and Pull the Handle Down.
5. Remove Finished Button.
6. Wear and share!

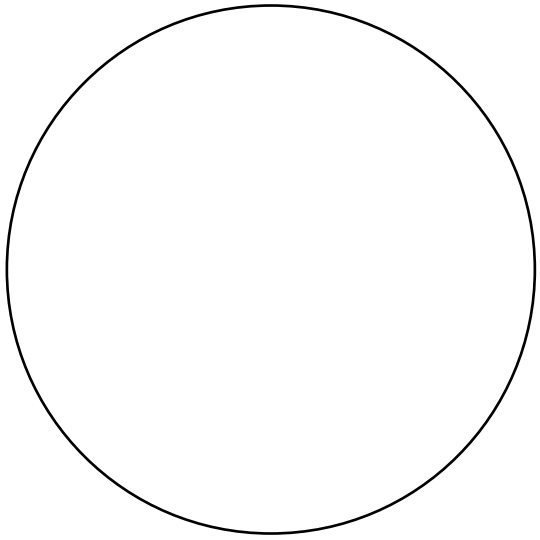
Figure 5-Examples of completed buttons

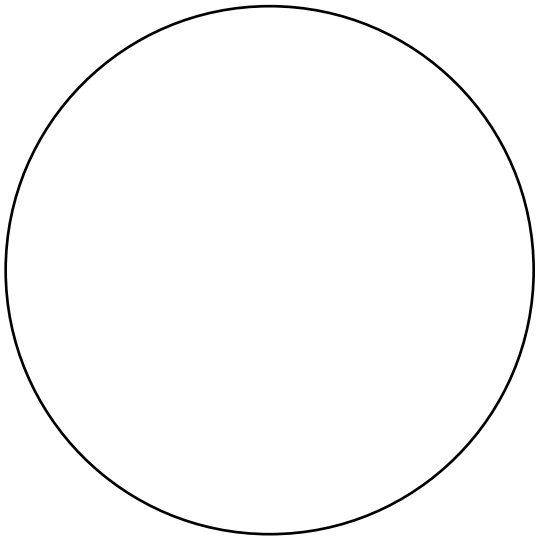
2.25

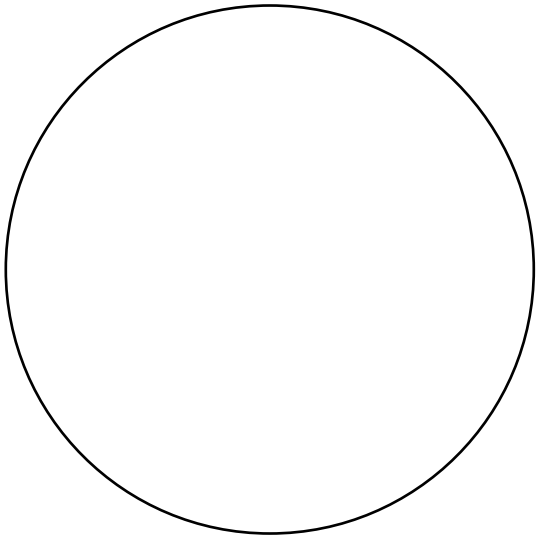




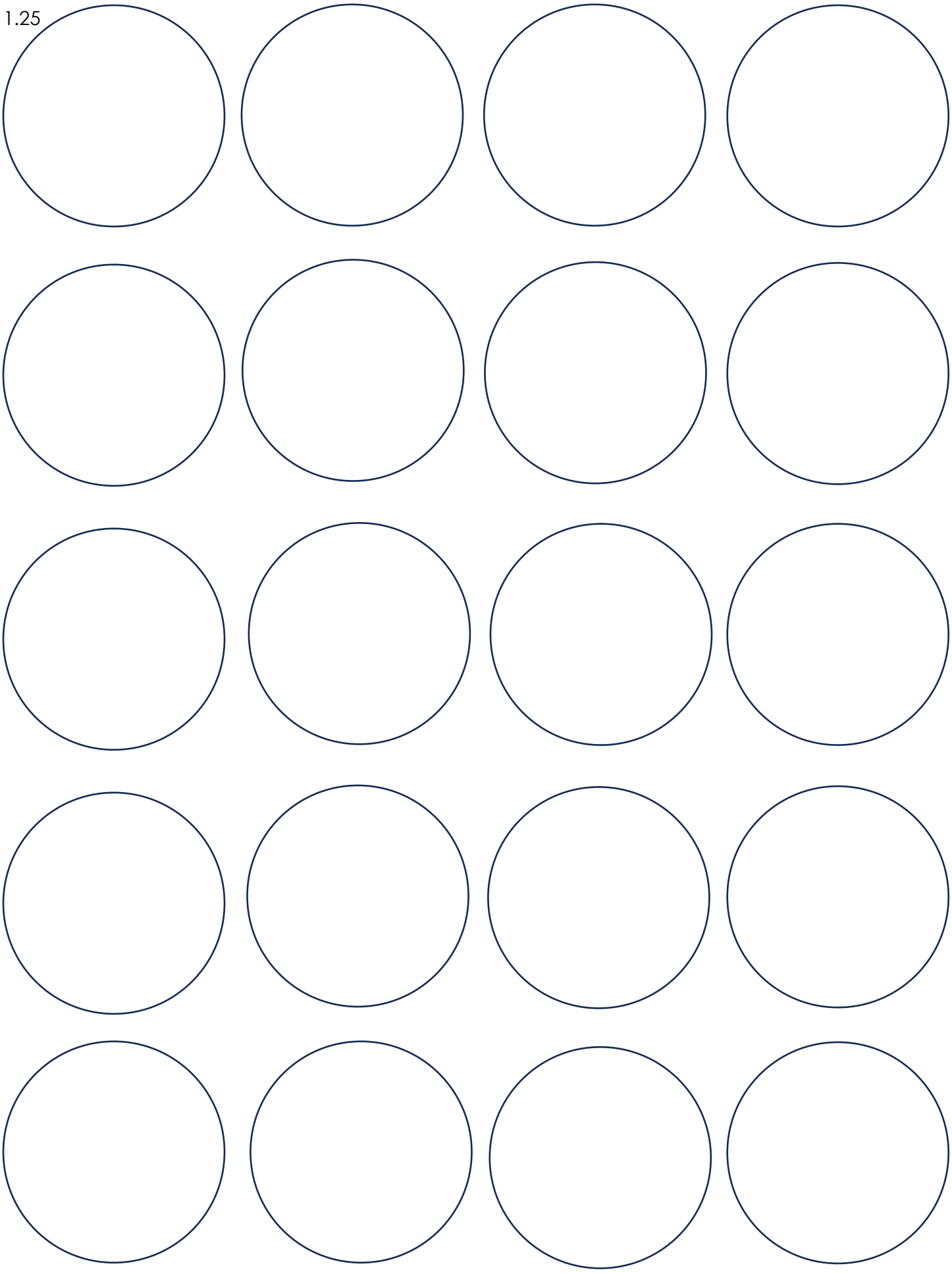








1.25



North Canton Public Library Makerspace:
Button Maker Instructional Videos:

The North Canton Public Library offers a variety of classes that use the Circuit Maker and Cricut Joy. Please make sure to look through the *On the Shelf Newsletter* publication or the events calendar seasonally for more information.

How to Videos:
American Button Maker Training Video

NCPL TikTok How to make a button video

North Canton Public Library Makerspace:

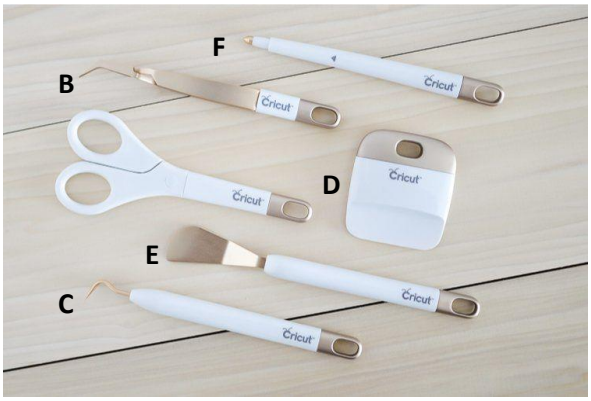
Cricut® Smart Cutting Machines

Cricut Maker® Machine:

The North Canton Public Library offers the use of a Cricut Maker Machine and computer with Cricut Design Space for the public to use. This space has The Cricut Maker® and a variety of tools available to use to create. The library also offers access to Cricut Design Space. Stop in at the Reference Desk to get started.

The Circuit Maker offers the ability to cut paper, cardstock, wood, leather, felt, fabric, acrylic, plastic, and more. (Supplies are not provided by the library).

Basic Cricut® Tools:



A- Scissors:

Scissors have a removable cover that protects the blades.

B- Tweezers:

Tweezers help lift and secure in one step. They have a reverse grip design - squeeze the handle together to open, and release to close.

C- Weeder:

Weeder is for "weeding," or removing access pieces that you do not want or need on a design. This sharp tip tool can help pick up or pop out unwanted pieces.

D- Scraper/XL Scraper:

The scraper is used to help remove unwanted scraps from the cutting mats after use. This tool can also be used to help smooth materials to the cutting mat.

E- Spatula:

The spatula is used to help lift images or designs from the cutting mat. The angle on the head allows for easy sliding under pieces to prevent curling or tearing.

F- Scoring Stylus:

The scoring stylus allows you to put scoring lines for boxes, 3D designs, envelopes, or card making. The stylus goes into the "A" clamp on the machine.

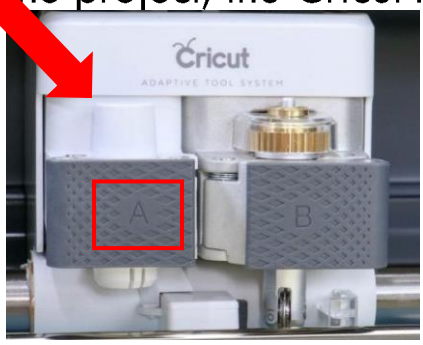
Basic Pens:

NCPL has both Extra Fine Point (0.3 mm) and Fine Point Marker (0.4 mm) pens available in a variety of colors for use at the makerspace. These pens can be used for writing or adding detail to projects.

Extra Fine Point Pen (0.3 mm)

Fine Point Marker (0.4 mm)

Pens are loaded into the "A" Clamp on the machine. When making the project, the Cricut Machine will direct you to place the pen.



Cricut® Scoring Wheel:

The Scoring Wheel tool is designed especially for Cricut Maker.

It makes a deep, single score line to make folds. tools create extra-deep score lines that make every fold effortless. This makes possible more crease-and-fold projects than the scoring stylus. The scoring wheel goes in the "B" clamp.

Cricut Mats Available to Use at the Library

Mat	LightGrip	StandardGrip	StrongGrip	FabricGrip
Color	Blue	Green	Purple	Pink
Visual				
For Use	Lightweight Materials	Medium-weight Materials	Heavyweight Materials	All Fabrics
Materials	Most Cardstocks Printer paper Pearl paper Vellum Wrapping paper	Vinyl Iron-on Glitter cardstock Embossed Cardstock Infusible Ink Transfer Sheet Kraftboard Matboard Truebrush paper	Basswood Wood veneer Felt Leather Aluminum sheets Chipboard Corrugated paper	Crepe paper Fabric

Tips When Using Cricut Mats:

- Peel the mat away from the material, not the material away from the mat.
- For best performance only use the recommended materials for each mat.

North Canton Public Library Makerspace at Home:
Circulating Circuit® Smart Cutting Machines in our Library

The North Canton Public Library offers several Cricut products that check out for a 14-day period, with a North Canton Public Library Card.

Please note you can click on the product name below is a hyperlink that takes you to the library's catalog to request the item.

Cricut Joy Machine
9in. x 9in.

Cricut EasyPress 2

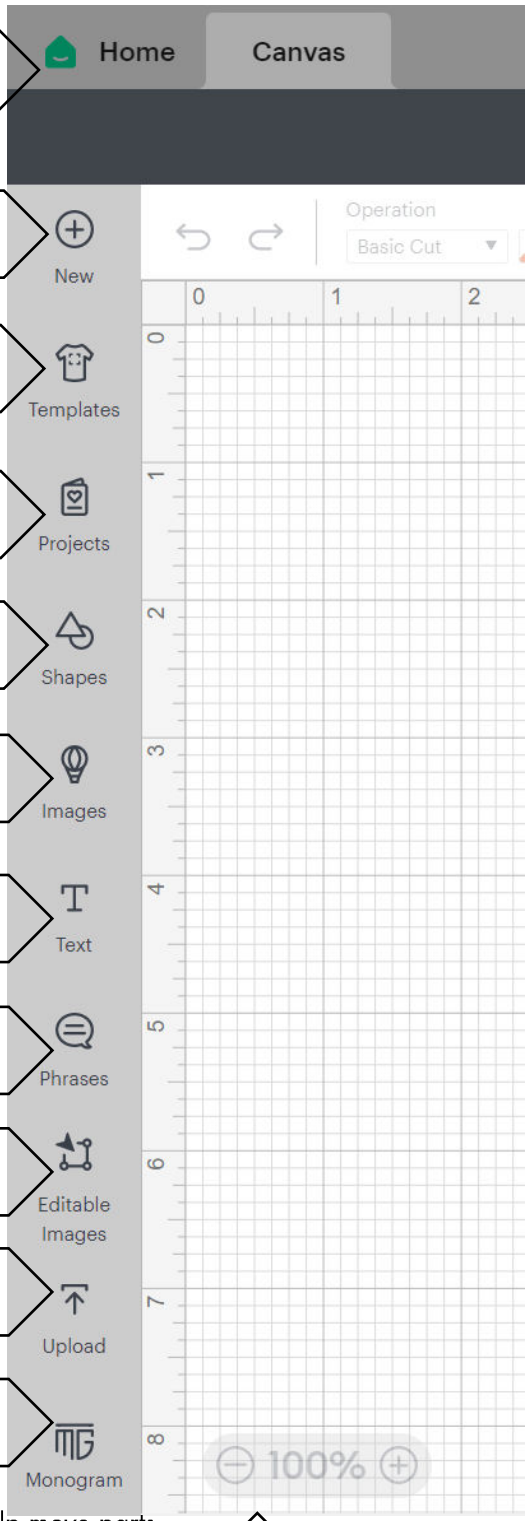
Cricut Easy Press Mini

Cricut Mug Press

North Canton Public Library Makerspace:

Cricut Design Space Canvas Overview

LEFT SIDE TOOLBAR



Cricut menu options to go to the home screen, update firmware, sign out, and more.

Opens a new project with an empty canvas.

Templates, help show the scale of a design. This does not save the project or print.

Projects, are premade designs. You can use the whole thing or pieces and parts.

Shapes, are basic shapes as well as more advanced shapes with the subscription.

Images, offers many options of parts to cut. draw, or print.

Text, has many options for fonts as well as customizing by letter even curving text.

Phrases, are options for more decorative lettering. You can hide parts but not edit them.

Editable images offers elements of text in blue that can be changed in the design.

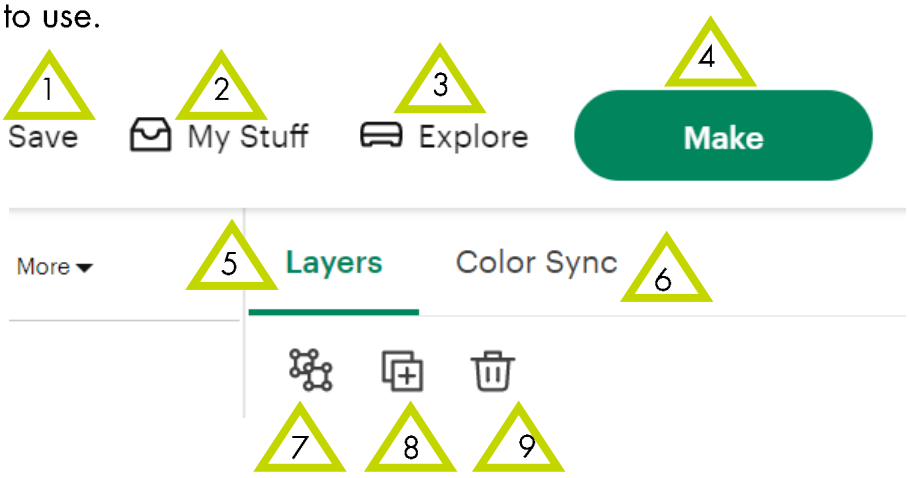
Upload, your own design. SVG, PNG, and JPEG all work well. Some minor editing can be done.

New feature with the subscription to help design custom letter art for easy Monograms.

The + and - zoom in and out of the view of the canvas. This can help move parts with more accuracy. or pieces and parts.

TOP RIGHT MENU

This panel offers a number of tools to use.



1 **Save**- is how to save your project. Save as, is used to save a separate project.

2 **My Stuff** – this is where your saved and favorited projects can be found.

3 **Explore** – this is where you select the machine you will use for your project. Some options are only available on certain machines.

4 **Make** – is the button for sending your design to the machine to cut, print, or draw.

5 **Layers** – are sections showing each piece that is on the canvas and can help organize elements.

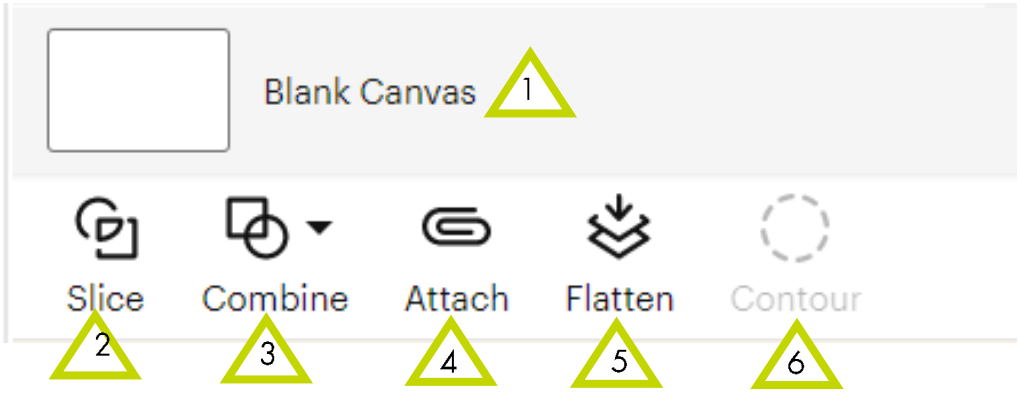
6 **Color Sync** – Shows the elements sorted by their color. Click and drag items to change their colors.

7 **Group/Ungroup** -This is both the group and ungroup button. This links layers so that they move or scale together.

8 **Duplicate** – This button will duplicate whatever selected.

9 **Delete** – this is the delete button.

BOTTOM RIGHT MENU



1 This is the background layer which can change color. This is also where a template would appear.

2 Slice will cut shapes from one layer out of another. This only works with two selected layers at a time. This is not reversible.

3 Combine now offers a few options for putting layers together. Some are now reversible, but others are not. More on these options on the next page.

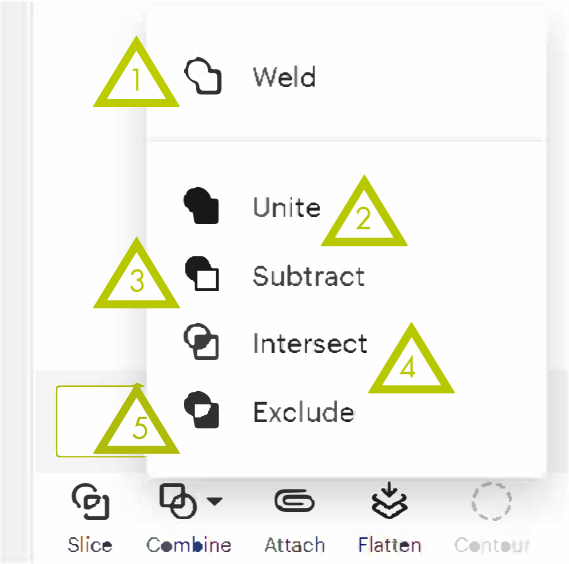
4 Attach is used to keep parts in a relationship when sent to the machine. Such as scoring or drawing on a shape, or keeping words in order in a design. You can also Detach layers as well.

5 Flatten changes the layers into print and cut operation layers. Perfect for creating printable stickers. Layers can be unflattened but remain print and cut until changed.

6 Contour allows you to turn on and off different cut or draw lines on a layer. More about this on a later page.

COMBINE OPTIONS

There are a number of new options to combine elements. Combine options are both editable and reversible. Weld is not.



1 **Weld** is the original feature that merges overlapping shapes or different layers into one shape or layer. This is not reversible.

The following options allow the layers to still be edited unless they are undone or the layers merged. Merging works just like Weld. The pictures help understand how they work.

2 **Unite** is similar to Weld but it allows you to still edit the original shapes and can be undone.

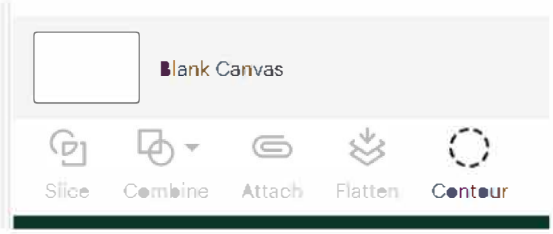
3 **Subtract** is similar to slice, however, it deletes all of the shapes/layers except for the bottom most layer.

4 **Intersect** will delete all of the parts except for where the layers overlap. If there are more than two layers, all layers selected must overlap in one area in order to use this feature.

5 **Exclude** is the opposite of intersect and will delete only the parts that overlap. These layers can overlap in any location and this feature will still work.

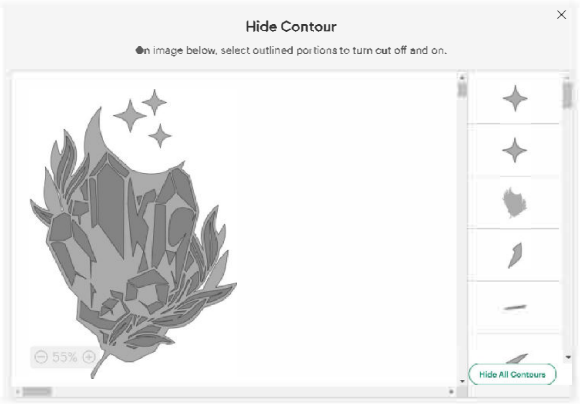
CONTOUR EDITING

A cut or draw layer can be edited using the Contour option. This allows you to hide or show different contours in the selected layer. Keep in mind that if you slice or weld this layer after, any hidden contours will disappear.



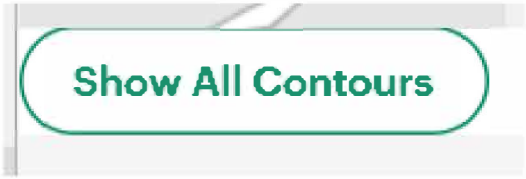
1 First, select your layer to edit then click on Contour in the bottom right of the window.

2 Then in the Popup window hide or show whichever contour you want to change by clicking on the shape in the image or shape in the right side menu.



3 You can quickly hide all contours except for one, typically the largest one with the Hide All Contours button.

4 If all the shapes are hidden except for one, you can quickly click the Show All Contours button to turn them back to visible.

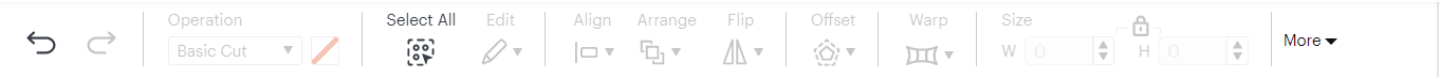


4 When you are done editing click the x in the top right corner of the Popup window to see the changes you have made.

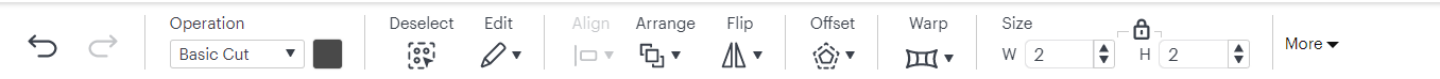
Experiment to see what happens.

TOP TOOLBAR

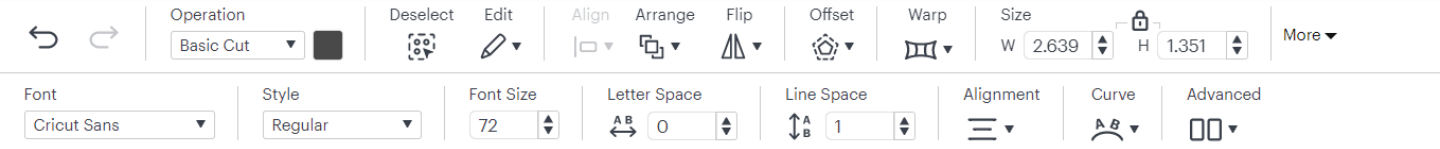
Depending on what you have selected on the canvas will change the available tolls in the top tool bar.



1 Above is what the toolbar looks like when nothing is selected.

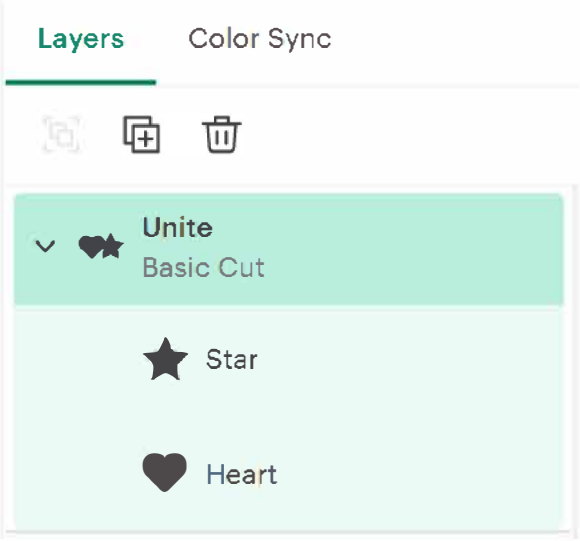


2 When a shape is selected you can modify it with these tools. Operation lets you change a cut line to draw or score. The color box lets you change the color of that layer. Then the rest change the size and orientation of the shape. Use the lock above the size measurements to distort the size of the layer.



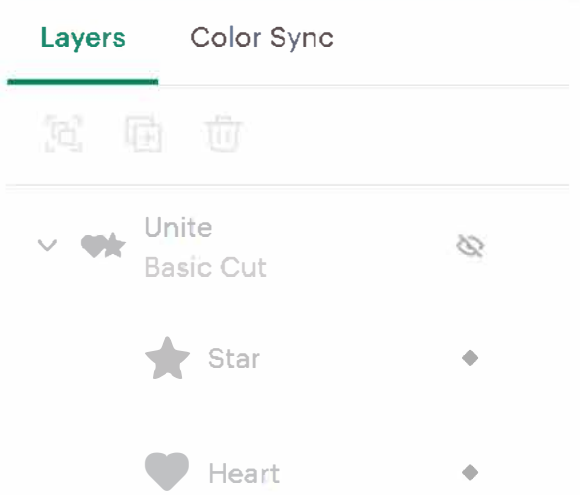
3 When text is selected, these text editing options appear in addition to the previous options. You can change the font, style, and size of the text. Letter spacing is the distance between letters and line spacing changes the space between lines. You also have typical alignment options as well as curving a line of text. Advanced allows you to separate the text into individual letters to finetune their placement and font.

LAYERS



Editable Layers

When you use one of the editable options on several layers, they will have the arrow (carrot) to the left like this. If you click on it you can collapse/expand that list of layers.



Hide/Show Layers

Layers can be hidden by closing the eye on that layer. The eye is visible when you mouse of that layer. This means they will stay in your design but not be sent to the machine if you click the Make It button. You can close the eye on a group of layers by clicking the one that has the dropdown arrow (carrot) on the left side.

Arrange Layers

Change the order of the layers by clicking and dragging the layer up or down the list. A line will show where the layer will land when you let go of the mouse button.

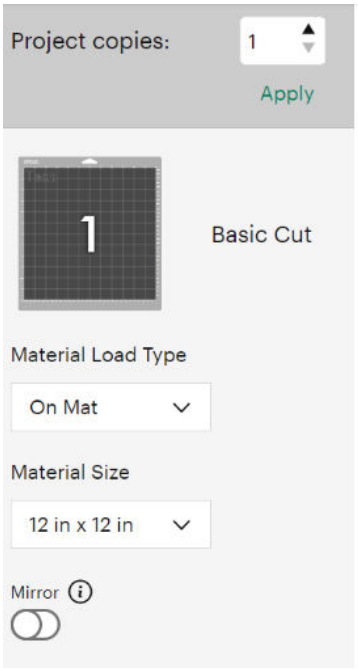
Layer Names

We are now able to change the layer names by double clicking on the current layer name then typing in the new name.

MAKE IT OPTIONS

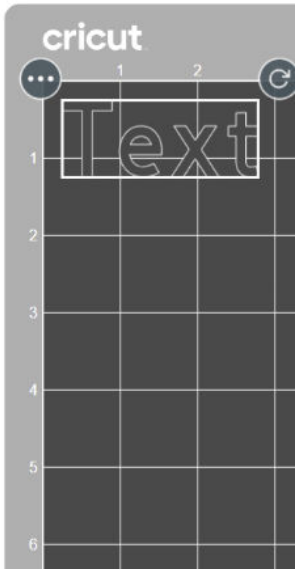
Number of copies

This allows you to make multiple of the same parts of a project. Click the green Apply button to set the number needed.



Mat Size

There are different types and sizes of mats that work in the different machines, be sure to select the one you will use.



Material Size

This will change how much of the mat where the pieces will be arranged. This can be very handy if you want to quickly arrange your project to the correct size material.

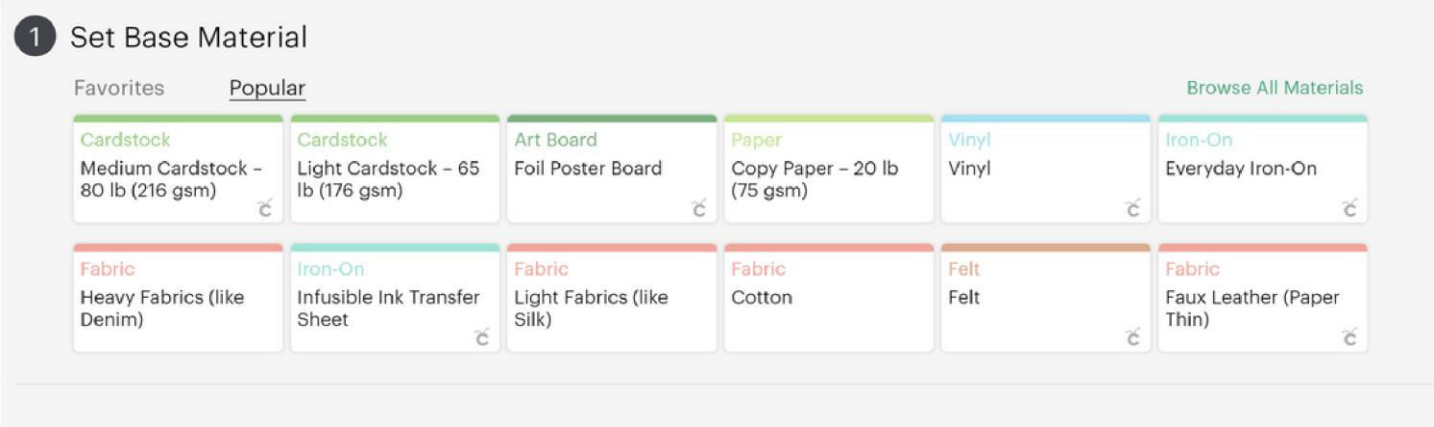
Mirror

Mirror is super important for cutting Heat Transfer Vinyl as this ensures words are readable once they are transferred. Be sure to check this setting if you are ever using Heat Transfer or the reverse side of glass.

3 Dot and Curved Arrow

Use the 3 dots to move items to a different mat or hide them. Use the curved arrow to rotate items so that they can be moved around the mat to fit close together. Use the grid to line up your materials and use scrap efficiently.

MATERIAL AND TOOLS



Select the Material Setting

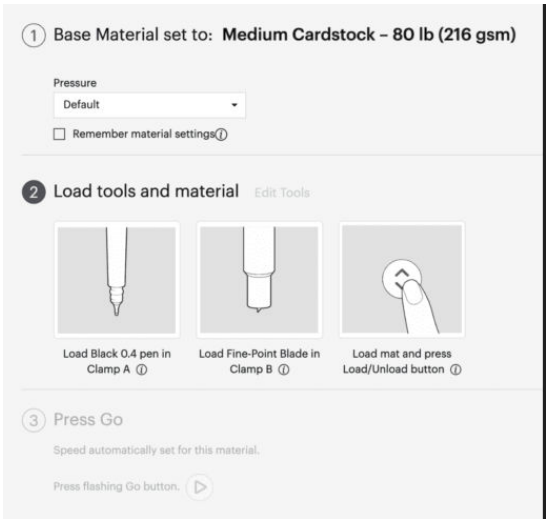
Select from the popular or favorite materials lists, and choose the material that matches what you are cutting on that particular mat.

If you don't see your material in either list then, click on **Browse All Materials** in the top right and select from the complete list of materials. If you use an uncommon material frequently, click the star next to it and it will appear in your favorites list.

Then set your pressure. Less for new blade and more for old.

Check your tools. Edit as needed

The next step is to load your tools into the correct clamp. There are some tools you can change such as the type of scoring tool from a pent to a wheel. Click on **Edit Tools**, this is where you can change that option. Then follow the rest of the loading instructions on the screen.



North Canton Public Library Makerspace:

Cricut® Smart Cutting Machines Instructional Videos

The North Canton Public Library offers a variety of classes that use the Circuit Maker and Cricut Joy. Please make sure to look through the *On the Shelf Newsletter* publication or the events calendar seasonally for more information.

Below is a curated list of videos created by Cricut experts on Cricut's YouTube Channel.

Learn about items in the North Canton Public Library Makerspace:

Cricut Maker Introduction: Learn about the Cricut Machine in the library's makerspace.

Cricut Maker Features: Learn cool and interesting features about the Cricut Machine in the library's makerspace.

Design Space Introduction Playlist: Learn how to navigate Cricut's design software required to create with any Circuit Machines.

Learn about items in the North Canton Public Library In the Tool Box, Available for Circulation:

Cricut Mug Press Playlist: The library has a Cricut Mug Press, learn how to use it with these videos.

Easy Press for Beginners Playlist: The library has a Cricut Easy Press and Cricut Easy Press Mini, learn how to use it with these videos.

PDF Resources:

Cricut_Learn_MaterialsTips_Final.pdf

Cricut_Learn_DesignSpace_Shortcuts.pdf

Cricut_Materials_Cheatsheet_for_Beginners_(2).pdf

Sites that provide Free SVG files and Fonts for the Cricut:

Cricut Free Sites.pdf

North Canton Public Library Makerspace:

Sites for Free SVG Files & Free Fonts

The North Canton Public Library does not endorse or sponsor the following sites but offers them as a resource for use if interested in looking for completed projects to print on the Cricut® Smart Cutting Machine.

Sites that offer free SVG Files:

Learn how to upload SVG files to Cricut Design Space

Please note that while these sites do offer options for free files, they also offer paid as well.

Printable Cuttable Creatables

SVGNation.com

Simplycraftysvgs.com

Cutthatdesign.com

Svgandme.com (must request access for free files)

JenniferMaker.com (must request access for free files)

Sites that offer free Fonts:

Learn how to upload fonts to Circut Design Space

Please note that while these sites do offer options for free files, they also offer paid as well.

Dafonts.com (Free for personal use)

1001fonts.com

Fontspace.com

Fontbundle.net

North Canton Public Library Makerspace:

Hot & Cold Laminator

About the Laminator:

The laminating machine warms up quickly, within 90 seconds. The lamination speed reaches up to 290mm. The machine takes both 3 mil and 5 mil thick laminating pouches. It has both cold and hot laminating modes to meet different types of laminating sheets.

What is lamination:

Lamination involves encasing materials in a protective layer to provide durability, resistance to moisture and damage, and a professional appearance.

When to use Hot Lamination vs. Cold Lamination:

Hot lamination involves the use of heat to activate the adhesive and bond the laminating film or pouch to the material.

Hot lamination is ideal for:
laminating documents, posters, signs, or frequently handled materials.

It is also preferred for projects that involve thicker materials or uneven surfaces.

Cold lamination does not require heat to laminate materials. Instead, it uses pressure-sensitive adhesive laminating film or pouches.

Cold lamination is well-suited for:
thermal paper, certain types of photographs, or delicate documents.

It is also suitable for quick laminating tasks and projects that require instant results.

Things to Know Before You Laminate:

Cold lamination should be done first because cold lamination cannot be used directly after the hot lamination setting. There needs to be a 45-minute cool-down period after heat lamination has been done.

Only one sheet of laminating paper through the machine at a time. More than one sheet at a time can cause the sheets to jam and damage both the machine and the documents being laminated.

How to Hot Laminate:

1. Plug the laminating machine in.

2. The on-off button is located on the front right side of the machine. Press the switch to hot mode by pushing it to the right. A red light will turn on to indicate the machine is on.

3. Wait 90 seconds for the machine to warm up, a green light will turn on next to the red one to indicate the machine is ready for use.

4. Next place the document or photograph in between the plastic laminating sheet page.
   - The North Canton Public Library currently has 11x17 and 8.5 x 11 sheets available for purchase to use with the laminator. You may also bring your own sheets of lamination paper, as long as they are no thicker than 5 mils.

5. Once the machine is ready, and the document is secure in the laminating pouch, place the connected end into the machine lining up with the correct spaces.
   - For 8.5 x 11 pages line up with A4 lines on the laminator and 11x17 pages line up with A3 lines on the laminator.

6. Once the pouch is pushed to the reels, it will pull itself through the machine. It will be warm/hot when it comes out on the back side of the machine.

How to Cold Laminate:

Please note: currently, the North Canton Public Library does not have cold laminating pouches for use.

1. Plug the laminating machine in.

2. The on-off button is located on the front right side of the machine. Press the switch to cold mode by pushing it to the right. A red light will turn on to indicate the machine is on.

3. Wait 90 seconds for the machine to warm up, a green light will turn on next to the red one to indicate the machine is ready for use.

4. Next place the document or photograph in between the plastic laminating sheet page.

5. Once the machine is ready, and the document is secure in the laminating pouch, place the connected end into the machine lining up with the correct spaces.
   - For 8.5 x 11 pages line up with A4 lines on the laminator and 11x17 pages line up with A3 lines on the laminator.

6. Once the pouch is pushed to the reels, it will pull itself through the machine. It will be cool when it comes out on the back side of the machine.

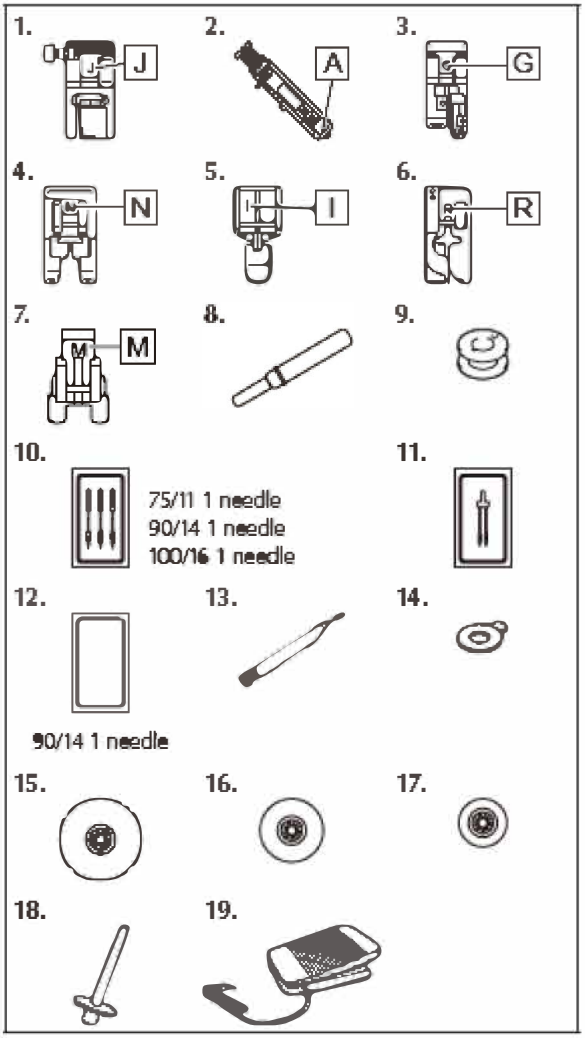
North Canton Public Library Makerspace:

Brother CS7205 Sewing Machine

About Brother CS7205 Sewing Machine

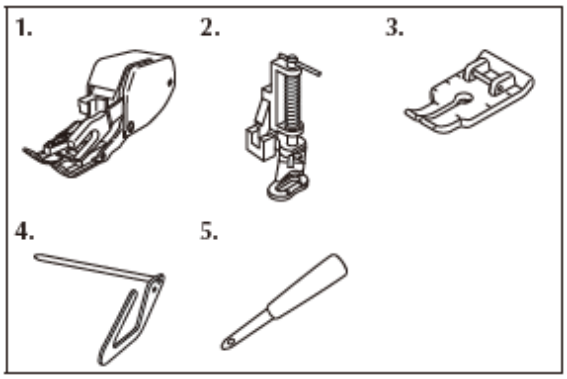
The Brother CS7205 is a computerized sewing machine with a wide table. It has 205 built-in stitches. Stitches include 55 alphanumeric and 8 one-step buttonholes. This machine has an automatic needle threading system. The machine includes 11 different accessory feet.

CS7205 Accessories



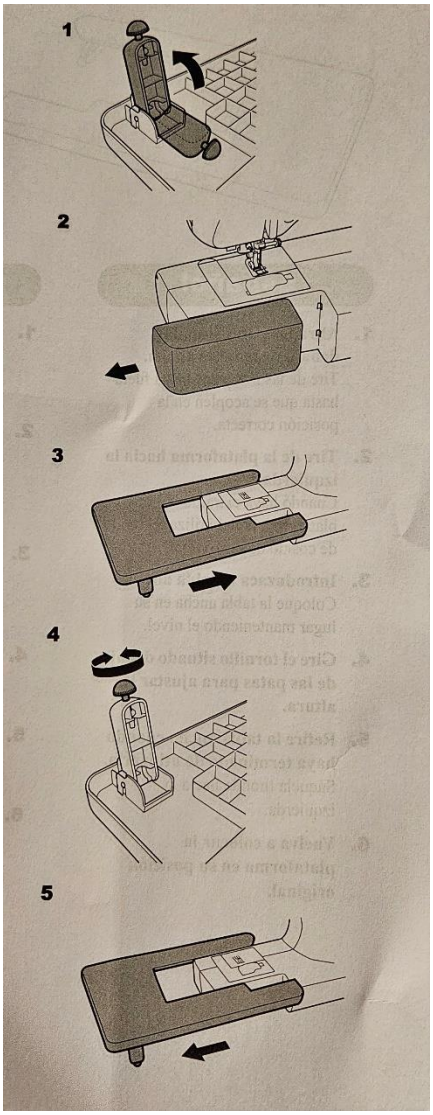
1. Zigzag foot (J)
2. Buttonhole foot (A)
3. Overcasting foot (G)
4. Monogramming foot (N)
5. Zipper foot (I)
6. Blind stitch foot (R)
7. Button fitting foot (M)
8. Seam Ripper
9. Bobbin (should be 4)
10. Needle Set
11. Twin Needle
12. Ball Point Needle (Gold colored)
13. Cleaning brush
14. Disc-shaped screwdriver
15. Spool cap (large)
16. Spool cap (medium)
17. Spool cap (small)
18. Extra spool pin
19. Foot Controller

Additional Accessories



1. Walking foot
2. Quilting foot
3. 1/4 -Inch quilting foot
4. Quilting guide
5. Eyelet punch

Putting on the Wide Table



1. **Open up the legs at the bottom of the wide table.** Pull out the three (3) legs until they snap into place.
2**. Pull off the flatbed attachment off to the left.** (Where the accessories are kept.) With the flat bed attachment removed, free-arm sewing is possible.
3. **Install the wide table** (Slide to the right.) Keep the wide table level, and fully slide it into place.
4. **Turn the screw at the bottom of the legs to adjust their height.**
5. **When you are finished using the wide table, remove it.** Pull it off to the left.
6. **Install the flat bed attachment back into its original position.**

Resources:

Brother Sewing Machines User Manuals:

CS7205

Brothers Sewing Guide

Introduction Video: Tutorial https://youtu.be/KObP-Hol2Vc?feature=shared

00:57 Setting up the sewing machine
01:26 Winding and setting the lower thread
06:08 Upper threading
08:32 To start sewing
11:11 Reverse sewing
12:18 Adjusting the stitch length and width
13:31 Thread tension
14:10 Overcasting
15:13 Blind hem stitching
16:49 Buttonhole sewing
18:54 Sewing characters
22:40 Replacing the needle and maintenance

Getting Started:

How to wind a bobbin: https://youtu.be/f8LPyY0_Iy0?feature=shared

How to thread a bobbin: https://youtu.be/nNJw2PkG5mc?feature=shared

How to thread the machine: https://youtu.be/5p617lj0pIs?feature=shared

Cutting the thread: https://youtu.be/7F0VwY5-InM?feature=shared

Adjusting:

Adjusting Stitches: https://youtu.be/PY3vmpdCF5Y?feature=shared

Adjusting Needle Position: https://youtu.be/PY3vmpdCF5Y?feature=shared

Changing Presser Foot: https://youtu.be/uuuQtu6hALk?feature=shared

Changing the Needle: https://youtu.be/12HluTYc15Y?feature=shared

How to Sew:

Starting to Sew: https://youtu.be/FnbR-StkHaI?feature=shared

Back stitching: https://youtu.be/Viy4iETX34Q?feature=shared

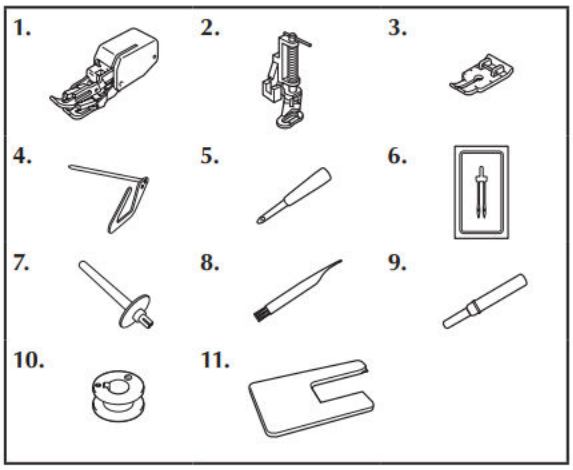
North Canton Public Library Makerspace:

Brother CS7000X Sewing Machine

About Brother CS7000X Sewing Machine

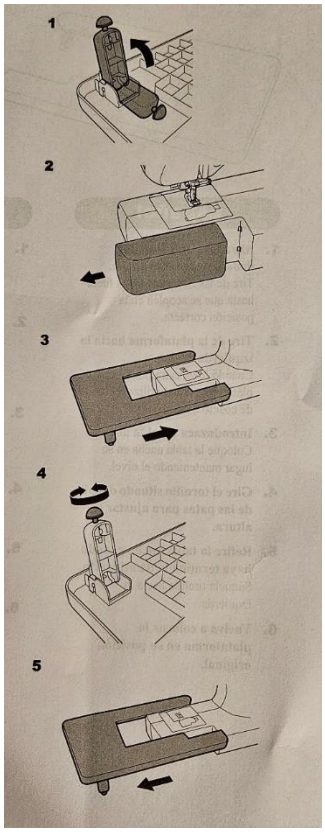
The Brother CS7000X is a computerized sewing machine with a wide table. It has 70 built-in stitches. This machine has an automatic needle threading system. The machine includes 10 different accessory feet.

CS7000X Accessories



1. Walking foot
2. Quilting foot
3. 1/4in piecing foot
4. Quilting guide
5. Eyelet Punch
6. Twin Needle (2/11 needle)
7. Extra spool pin
8. Cleaning brush
9. Seam ripper
10 Bobbin
11. Wide Table

Putting on the Wide Table



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2. **Pull off the flatbed attachment off to the left.** (Where the accessories are kept.) With the flat bed attachment removed, free-arm sewing is possible.
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5. **When you are finished using the wide table, remove it.** Pull it off to the left.
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CS7000X

Brothers Sewing Guide

Videos:

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How to thread the machine: https://youtu.be/5p617lj0pIs?feature=shared

Cutting the thread: https://youtu.be/7F0VwY5-lnM?feature=shared

Adjusting:

Adjusting Stitches: https://youtu.be/PY3vmpdCF5Y?feature=shared

Adjusting Needle Position: https://youtu.be/PY3vmpdCF5Y?feature=shared

Changing Presser Foot: https://youtu.be/uuuQtu6hALk?feature=shared

Changing the Needle: https://youtu.be/12HluTYc15Y?feature=shared

How to Sew:

Starting to Sew: https://youtu.be/FnbR-StkHaI?feature=shared

Back stitching: https://youtu.be/Viy4iETX34Q?feature=shared

North Canton Public Library Makerspace:

Brother© Sewing Machine Instructional Videos

Below is a curated list of videos created by Brother Sews USA experts on YouTube.

Brother Sewing Machines User Manuals:

CS7000X

CS7000X Reference & Stitch Guide.pdf

CS7205

CS7205 Reference and Stitch Guide.pdf

CS7205 Stitch Guide.pdf

Brothers Sewing Guide

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Adjusting:

Adjusting Stitches: https://youtu.be/PY3vmpdCF5Y?feature=shared

Adjusting Needle Position: https://youtu.be/PY3vmpdCF5Y?feature=shared

Changing Presser Foot: https://youtu.be/uuuQtu6hALk?feature=shared

Changing the Needle: https://youtu.be/12HluTYc15Y?feature=shared

How to Sew:

Starting to Sew: https://youtu.be/FnbR-StkHaI?feature=shared

Back stitching: https://youtu.be/Viy4iETX34Q?feature=shared