



MakerSpace Embroidery Machine

Janome Memory Craft 550E



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Before You Start

What does an embroidery machine do?

An embroidery machine is a specialized sewing machine that automatically stitches decorative designs onto fabric. Instead of manually guiding the fabric to create patterns, the machine follows a digital design file and stitches it out precisely.

The Janome Memory Craft 550E uses a needle, thread, and a movable **embroidery hoop** to stitch designs. The fabric is held taut in the hoop, and the machine moves the hoop in all directions while the needle stitches up and down, building the design one colour at a time.

The machine can stitch built-in designs, lettering, or custom designs loaded from a USB drive. It follows the stitch file exactly, producing detailed and repeatable results.

What can you make with an embroidery machine?

With an embroidery machine, you can create a wide variety of decorative and personalized projects. This makes it a popular tool for personalization, crafting, gifting, and small-scale branding. For example, you can make:

- **Personalized Clothing:** names, monograms, or logos on shirts, jackets.
- **Home Items:** decorative towels, pillowcases, table linens, and quilts.
- **Gifts:** embroidered items, tote bags, handkerchiefs, and stockings.
- **Branding:** business logos on uniforms, aprons, or promotional items.
- **Labels & Lettering:** quilt labels, name tags, and decorative text.

What to Expect

- **Average project time:** 60–120 minutes (depending on design size, stitch count, and number of colours).
- **Skill level:** Beginner-intermediate with staff assistance for setup.
- **What to bring:** Your own fabric, a design file on USB (.JEF or .EMB format), or choose from the machine's built-in designs.

If you are creating a custom design, prepare it beforehand using the Janome Digitizer MBX software on the MakerSpace computer.

Tip: Simpler designs with fewer colours and lower stitch counts tend to produce the best results, especially for beginners.



Software & Files

Custom embroidery designs are created using **Janome Digitizer MBX** on the MakerSpace computer beside the embroidery machine. The software converts artwork and text into stitch patterns the machine can follow.

You have three options for choosing a design:

- **Built-in designs:** The machine includes a library of pre-loaded designs and lettering. No software or USB needed.
- **Custom designs:** Create your own design in Janome Digitizer MBX, export it as a .JEF file, and transfer it to the machine via USB.
- **Existing .JEF files:** If you already have a .JEF design file (from a previous session or downloaded online), load it directly from a USB drive.

For details on creating custom designs, refer to the Janome Digitizer MBX Guide.

File Format

- **.JEF** – the file format used by the Janome embroidery machine. All designs must be in this format to be loaded from USB.

Supplies & Materials

You must supply your own fabric. The MakerSpace does not sell or provide fabric for embroidery projects.

What the MakerSpace Provides

- 100% polyester embroidery thread in various colours
- Tear-away backing stabilizer
- Embroidery needles
- Bobbins (pre-wound)

What You Should Bring

- Your fabric, pre-washed and ironed if possible
- A USB drive with your .JEF design file (if using a custom design)

Acceptable Fabrics

- Natural fibres (cotton, linen, wool)
- Fine fabrics (silk, satin, taffeta, velvet)
- Knit fabrics
- Synthetic fabrics (blends, rayon, polyester)
- Denim
- Upholstery fabric

Available Hoop Sizes

Choose the smallest hoop that fits your design. A smaller hoop holds the fabric more securely and reduces the chance of shifting.

Hoop Size	Best For
3.9" x 1.6"	Tiny designs and small pieces of fabric/patches
5.5" x 5.5"	Small designs, monograms, and single names
7.9" x 5.5"	Medium designs, longer text, and narrow graphics
7.9" x 7.9"	Larger designs, logos, and multi-element layouts
7.9" x 11"	The largest designs and full-width graphics

Note: Select the correct hoop in the Digitizer software before designing, so the on-screen workspace matches the physical hoop.

Cost

Production cost: \$2.00 per 5,000 stitches (or part thereof). Please track Stitch counts during your project.

Embroidery Machine Safety

The embroidery machine is safe when used with care, but there are important safety considerations due to the moving needle and mechanical parts.

Needle and Puncture Risk

- Keep all body parts, especially fingers, away from the needle area while the machine is operating.
- Do not pull or push the fabric while the machine is stitching. This can break the needle or damage the machine.
- **Lock the machine (or turn the power off)** before threading the needle, changing the needle, or making any adjustment in the needle area.

Moving Parts

- The embroidery hoop moves rapidly during stitching. Keep hands and loose items clear of the hoop area.
- The handwheel should spin smoothly. **Do not force it.**

General Rules

- Do not use bent or damaged needles. Alert staff immediately if the needle or machine appears damaged.
- If the machine starts making unusual noises (loud, irregular, grinding, screeching or knocking), push the stop button and notify staff immediately.
- Ask staff for help if you are unfamiliar with any part of the machine.

Getting Started

This section walks you through the full embroidery process from choosing a design to starting the stitch.

Step 1: Choose or Create Your Design

You have three options:

Option A: Use a Built-In Design

Instructions	Example
1. Turn the machine ON.	
2. Tap Embroidery on the touchscreen.	A photograph of the Embroidery Machine touchscreen.

3. Browse the built-in designs or select Lettering for text.



The first photograph shows how to select built-in designs. The second photograph shows how to select lettering for text.

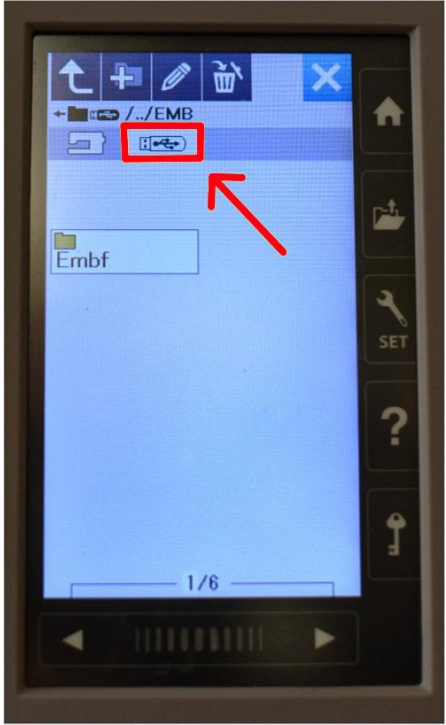
4. Tap Edit to resize, rotate, or combine designs.



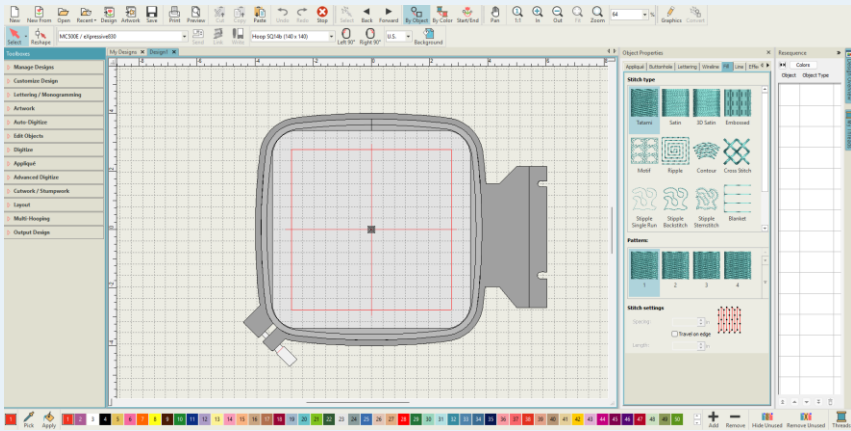
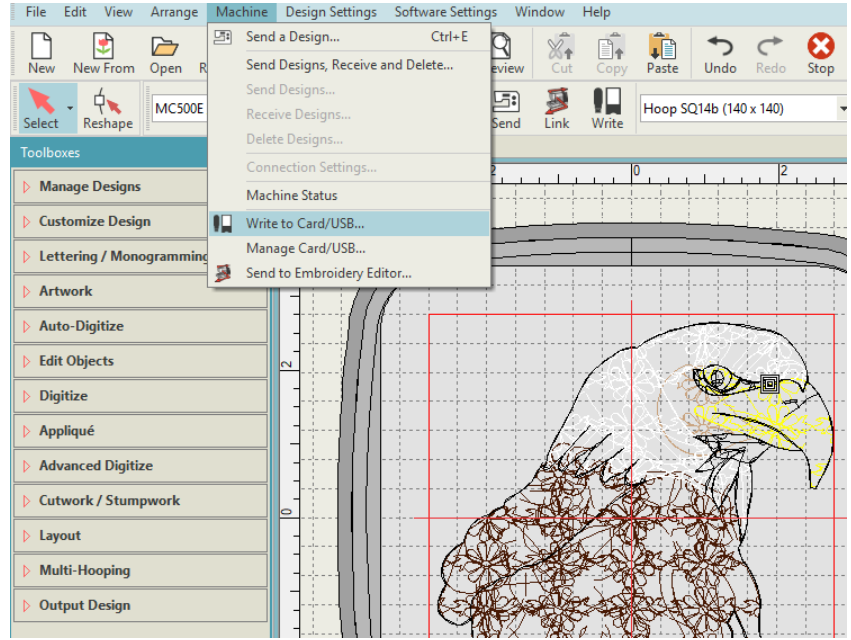
A photograph showing how to use Edit to resize, rotate, or combine designs

5. Press OK when finished.

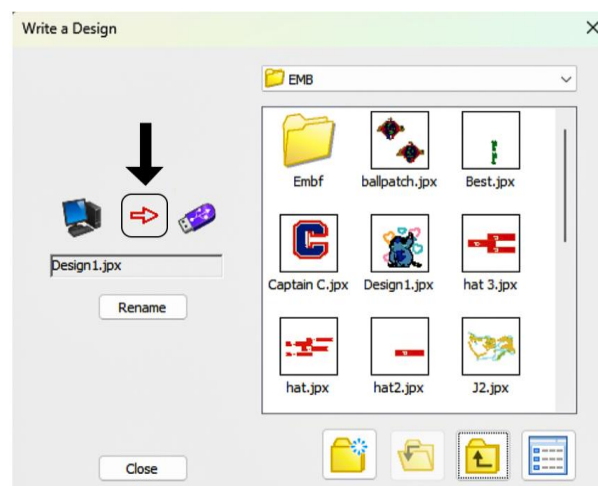
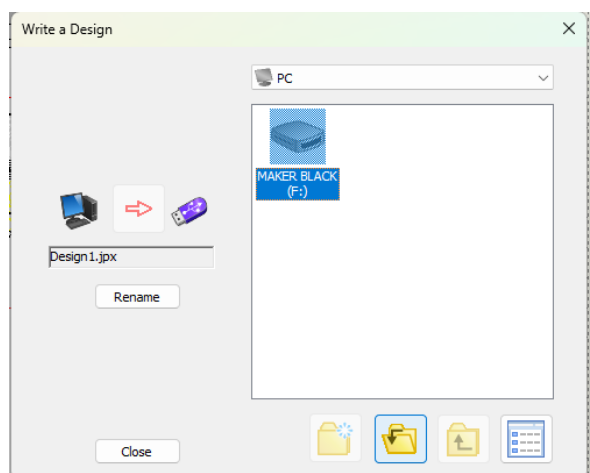
Option B: Load a Design from USB

Instructions	Example
1. Insert your USB drive into the machine.	
2. Tap the USB icon on the touchscreen.	 A photograph showing how to load a design from a USB.
3. Use the Left and Right arrows just below the screen to move through the design files.	
4. Select your .JEF design file and load it.	

Option C: Create a Custom Design

Instructions	Example
1. Use Janome Digitizer MBX on the MakerSpace computer to create or modify a design.	 A screenshot of the workspace in Janome Digitizer MBX.
2. When finished, Select Machine → Write.	 A screenshot showing where to select Machine → Write.
3. Rename the design if desired.	

4. Double-click the USB icon and click the red arrow to transfer.



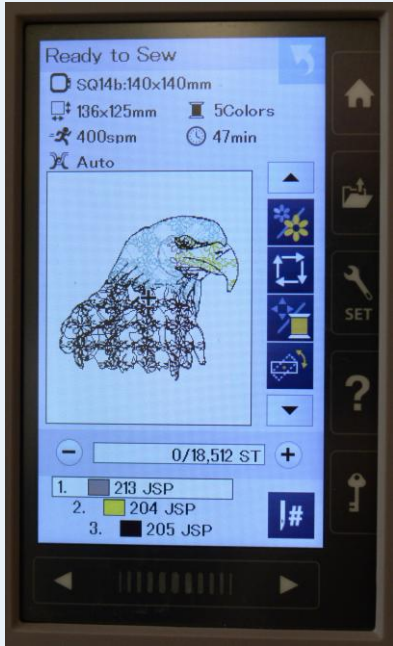
Two screenshots showing where to click the USB icon and the red arrow to transfer.

5. The file will save in .JEF format on your USB drive.

For detailed instructions, refer to the Janome Digitizer MBX Guide.

Step 2: Load the Design on the Machine

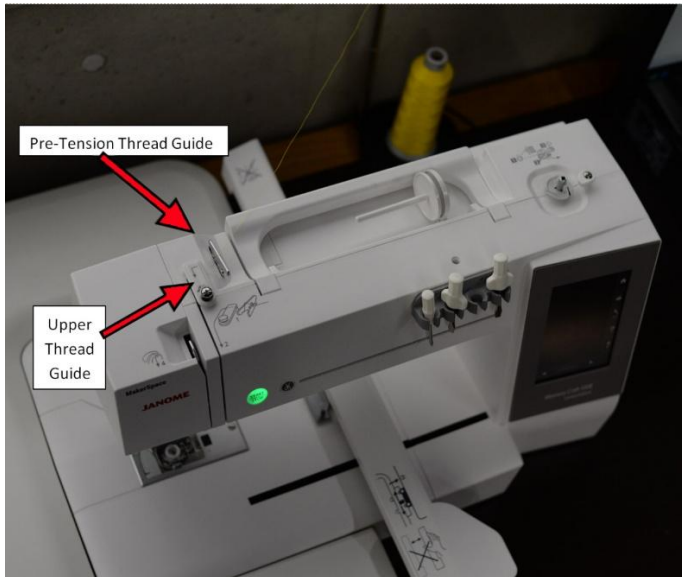
Before threading, load your design so you can see which thread colour is needed first.

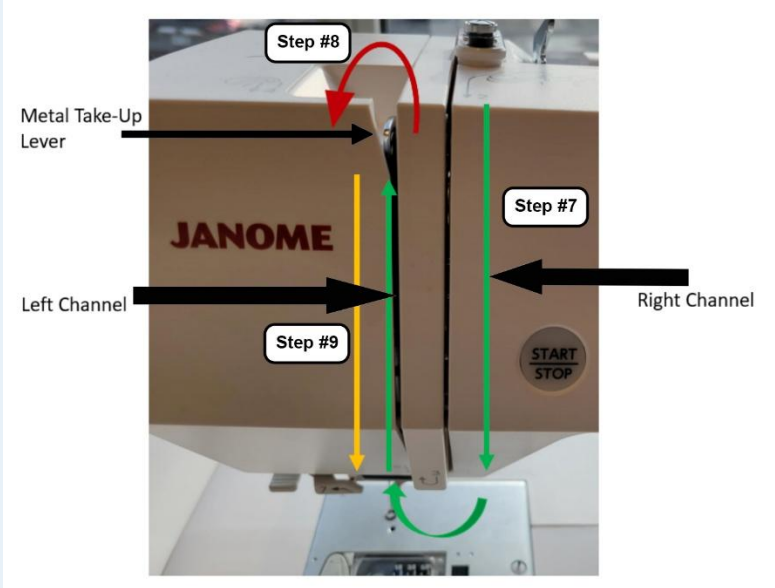
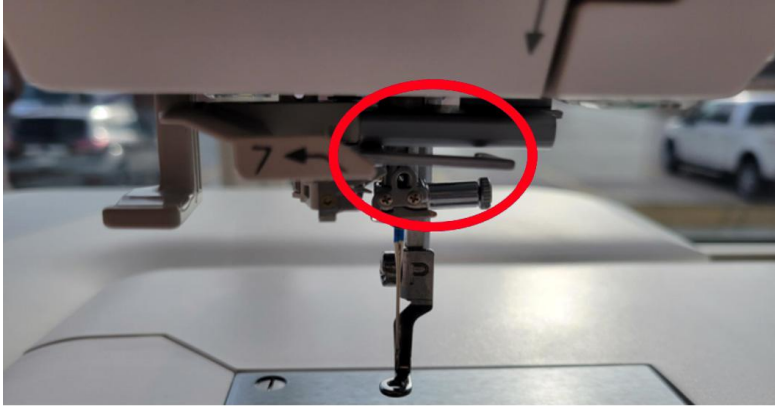
Instructions	Example
1. If using USB, insert the drive and select your design from the touchscreen.	
2. If using a built-in design, select it as described in Step 1.	
3. The screen will display the design, the stitch count, and the first thread colour required.	
4. Select the correct hoop size on the machine screen to match the physical hoop you will use.	

A photograph showing the Ready to Sew screen.

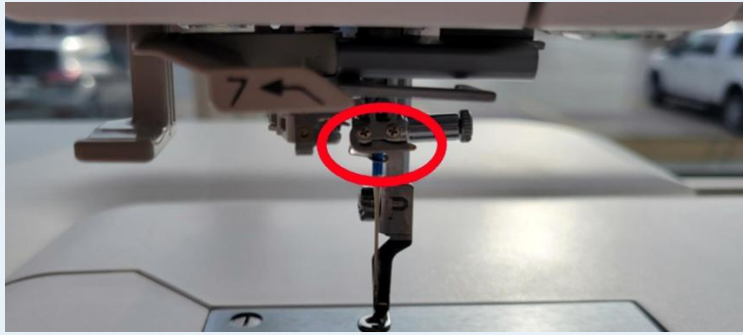
Step 3: Thread the Machine

Lock the machine before threading. Press the lockout key to prevent the needle from moving.

Instructions	Example
1. Place the thread spool on the spool pin at the top of the machine. Place the spool holder at the end.	
2. Pull the thread from the spool and pass it into the back of the pre-tension thread guide (the metal piece to the left of the spool).	
3. Wind the thread over the top of the pre-tension guide once, then under the front.	
4. Wind the thread around the top of the upper thread guide (the rectangular piece to the left).	 A photograph showing the placement of the pre-tension thread guide and upper thread guide.

5. Pull the thread firmly down the right channel and up around the left side (labelled step 3 on the machine).	
6. Thread through the metal take-up lever (labelled step 4 on the machine).	
7. Draw the thread down the left channel.	 A photograph labelling the left channel, right channel, and metal take-up lever in steps 7, 8 and 9.
8. Draw the thread behind the lower thread guide (labelled step 5 on the machine).	 A photograph showing the lower thread guide.

9. Slide the thread from right to left through the needle bar thread guide.



A photograph showing the needle bar thread guide.

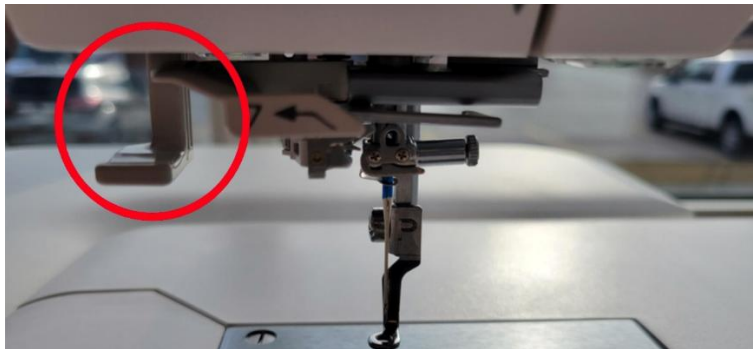
10. Use the built-in needle threader to thread the needle or manually thread the needle.



A photograph showing the built-in needle threader.

11. Pull the thread over the lever marked 7, over and around the guide on the left side of the machine, and pull until the thread breaks free.

12. Ensure the presser foot is down. Press the threader knob on the left side of the machine to thread the needle.



A photograph showing the threader knob.

13. Pull the thread from the back of the needle.



Step 4: Hoop the Fabric

1. Attach tear-away stabilizer to the back of your fabric. Both the fabric and stabilizer should be larger than the hoop.
2. Loosen the tightening screw on the outer hoop (the larger frame).
3. Lay the fabric and stabilizer on top of the outer hoop.
4. Place the inner hoop on top of the fabric and press it down into the outer hoop. You should feel it click into place.
5. Tighten the screw until the fabric is taut and flat in the hoop.

Step 5: Attach the Hoop to the Machine

1. Raise the presser foot using the lever at the back of the machine.
2. If the carriage is not in the home position, the machine will prompt you to move it. Press OK and keep hands clear.
3. Select Start on the screen. The machine will move the carriage arm to the starting position.
4. Lock the machine.
5. Move the hoop under the presser foot. You can hold the presser foot lever upwards to increase the opening size.
6. Align the notches on the right hand side of the hoop with the two silver carriage posts.
7. On the hoop pull the black slider forward to open the clips and push the hoop onto the posts. The top most portion of the posts should sit on top of the Hoop clips. Do not force it in to position.

Step 6: Start Stitching

1. Unlock the machine.
2. Press the Start/Stop button. The machine will begin stitching the first colour.
3. When the machine stops and prompts for a thread change, re-thread with the next colour shown on the screen.
4. Repeat until all colours are complete.
5. When the design is finished, follow Step 5 in reverse to remove the hoop from the machine.
6. Remove the fabric from the hoop. Tear away the stabilizer backing or carefully use scissors to trim the stabilizer from the underside of the fabric.

Tips for Success

- **Start with a simple design.** A small monogram or built-in design is a great first project. This helps you learn the threading, hooping, and stitching process before attempting complex designs.
- **Hoop tightly and evenly.** Loose or uneven fabric is the most common cause of puckering, shifting, and poor stitch quality. The fabric should be drum-tight in the hoop.
- **Always use stabilizer.** Stabilizer prevents the fabric from stretching and distorting during stitching. Most fabric benefits from using stabilizer. For simple designs, tear away stabilizer will work on challenging designs and thin fabric consider making use of the cut-away stabilizer.
- **Watch your stitch count.** High stitch counts increase the chance of thread jams and errors. As a guideline, keep small designs under 6,000 stitches.
- **Use fewer colours when possible.** Each colour requires a thread change and a machine stop. Fewer colours allows for faster, more reliable results.
- **Choose the right hoop.** Use the smallest hoop that fits your design. A smaller hoop holds the fabric more securely.
- **Test on scrap fabric.** Before stitching on your final project, run a test on similar scrap fabric to check thread tension, colour, and placement.
- **Lock the machine before threading.** Always press the lockout key before working in the needle area. This prevents accidental needle movement.



Common Issues & Quick Fixes

Problem	What to Do
Thread keeps breaking during stitching	Ask staff to re-thread the machine from scratch, following the full thread path. Check that the thread is not caught on the spool or tangled. Try a fresh needle. Make sure the foot is up while threading.
Design stitched in the wrong position	Re-check the hoop placement on the carriage. Make sure the hoop is fully seated on the carriage pins and locked. Re-centre the design on the machine screen if needed.
Fabric puckering or bunching	Make sure the stabilizer is attached and the fabric is hooped tightly. Loose hooping is the most common cause.
Needle broke during stitching	The needle may be wrong for the fabric weight, or the design may have very dense stitching. Ask staff to replace the needle and check the stitch count.
Bobbin thread showing on top of fabric	The upper thread tension may be too loose, or the machine may need re-threading. Re-thread both the top thread and the bobbin thread.
Machine jammed or made unusual noises	Stop immediately and notify staff. Do not force the handwheel. The thread may be tangled in the bobbin area.
Design looks different from the preview	Very small or very dense designs may not stitch as expected. Try increasing the design size or reducing the stitch count in the Digitizer software.

If the issue persists after trying these steps, ask staff for help.

Need More Help?

If you need additional support:

- Ask MakerSpace staff for assistance at All Levels Access hours.
- Refer to the Janome Digitizer MBX Guide for custom design creation.
- Read the full Janome Memory Craft 550E user manual, available at the MakerSpace.
- Visit the MakerSpace webpage for booking and contact information.