

Embroidered Picture Frame

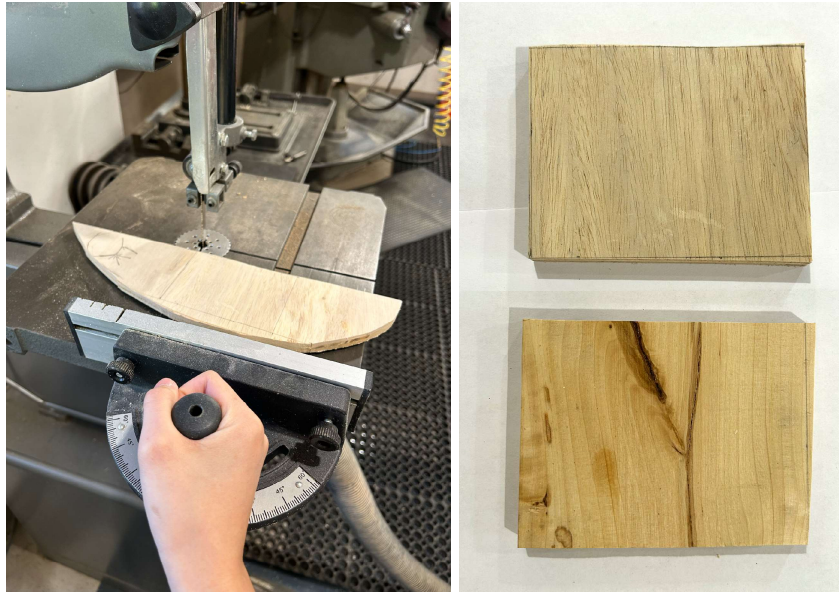
By Winita Wangsrikhun (Ploy)



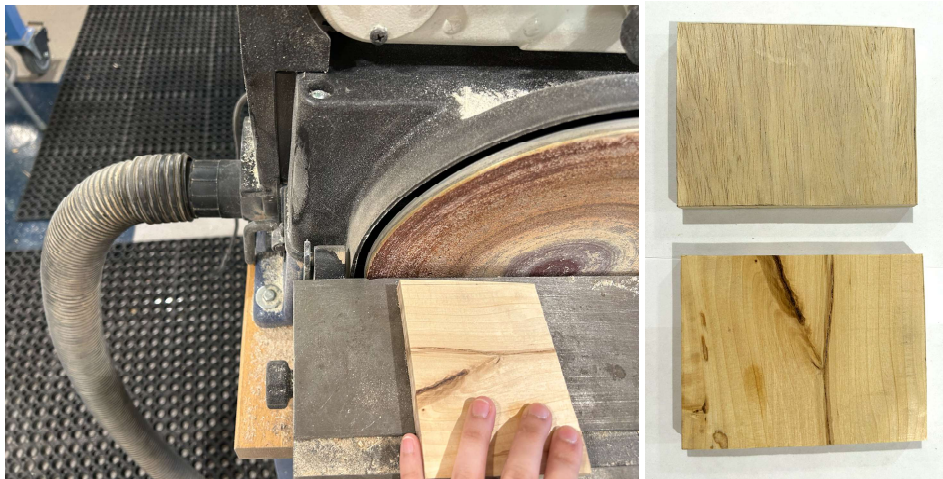
1. Find two pieces of wood sheet (or just one large wood sheet). Make sure they are big enough to be cut into a $3 \frac{3}{8}$ by $4 \frac{3}{8}$ inch piece.



2. Measure and draw a $3\frac{3}{8}$ by $4\frac{3}{8}$ rectangle on the wood.

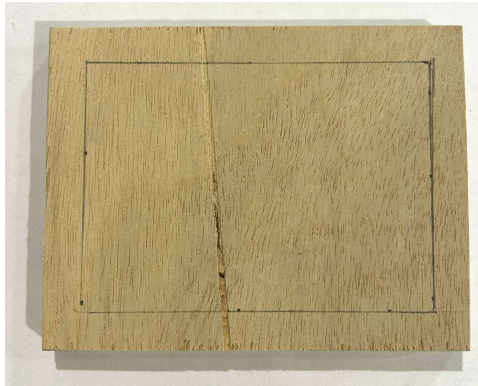


3. Cut the rectangular wood piece on the bandsaw.
 - a. Make sure the vacuum is plugged in and turned on.
 - b. If you are not confident, use pushers. Pushers slide in the slot on the bandsaw plate. Instead of using your hands, use them to guide the piece of wood through.
 - c. Never stick your hand/fingers inside the circular steel plate on the bandsaw.
 - d. Cut it a little bit off the line and sand the piece later for more precision.

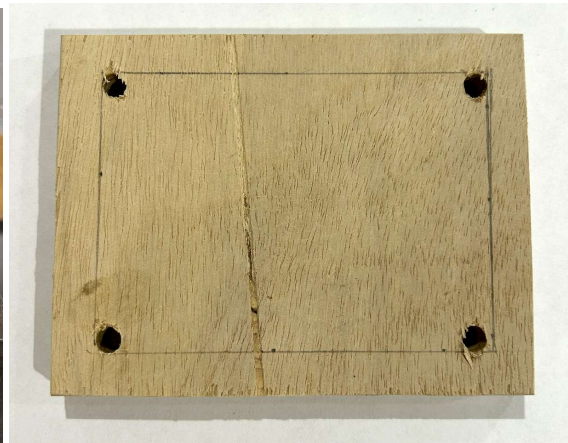


4. Sand the wood pieces with a belt/disk sander
 - a. Make sure the vacuum is plugged in and turned on.
 - b. Use the disk sander to sand the edge for precision. Always use the left half of the disk so it is sanding down against the plate.
 - c. Use the belt sander to sand and smooth the surface.
5. Choose the piece of wood that will be the frame. The other piece will be on the back for the embroidered piece to be on.

6. Draw a 2 ½ by 3 ½ inch rectangle in the middle of the frame piece. This will be cut out to create the frame.



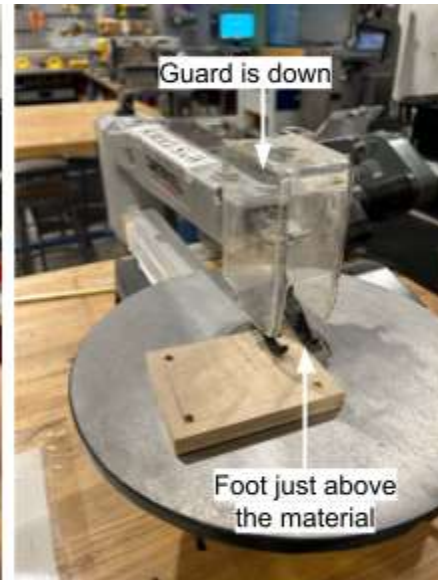
7. Use the drill press to drill through holes in the 4 corners. Use any drill bits that are bigger than the scroll saw blade (I used a 7/32 drill bit). These holes are for putting the scroll saw blade in to cut the inside rectangular piece.
- Use the drill press key to loosen/tighten the jaws.
 - Put the drill bit in, then tighten the jaws with the key.
 - Take the drill press key out.
 - Clamp the wood down with a vise clamp and clamp the vise clamp down with two c-clamps.
 - Start the machine. Gently turn the knob to drill. Make sure the drill bit does not run into the clamp.
 - Remember to clean the wood chips once you are done.
 - Ask SLLab advisors if you are not familiar with the drill press.** The list above is just a reminder about safety rules.



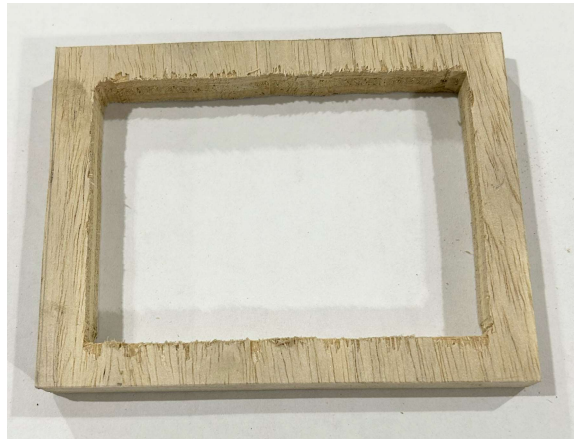
8. **Ask SIlab advisors for help with this step.** Remove the scroll saw blade and insert it into one of the drilled holes. Put the blade back in the machine. Position the wood so the blade will cut along the line drawn in step 6.



9. Adjust the foot to be just above the wood to give it support. Use the Allen key by the scroll saw to loosen the screw on the side. Adjust the height of the foot, then tighten the screw. Make sure the guard is down.



10. Use the scroll saw to cut along the rectangle's line. Once the sawblade reaches the corner, it should go into the drilled hole, allowing you to turn the wood piece and make the next cut.
- Keep your hand outside the circular area on the plate.
 - Ask SIlab advisors if you are not familiar with the scroll saw.** The list above is just a reminder about safety rules.
 - You can also color or stain the frame. House paints, acrylic paints, and wood stains can be found in the beige cabinet.



11. Go to the sewing and embroidery machine. If the machine is in a sewing setting, plug the embroidery unit in.
- To change from sewing setting to embroidery, take the part on the lower left corner out.



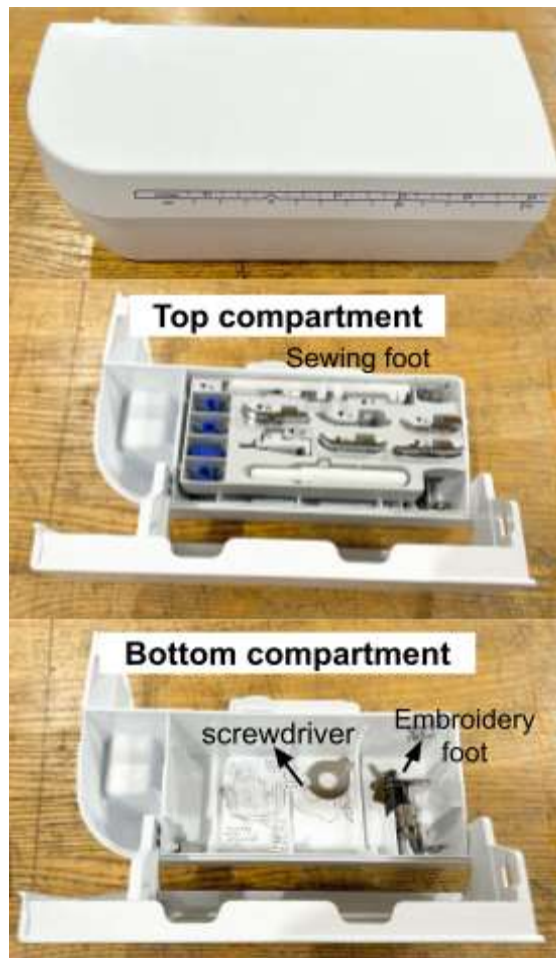
- b. Open the channel for embroidery unit connection that is on the side of the machine.



- c. Plug the embroidery unit in.



- d. Open the lower left corner that was taken out. There should be sewing feet on the upper compartment. The lower compartment contains a screwdriver, an embroidery foot, and a place to store a presser foot holder.



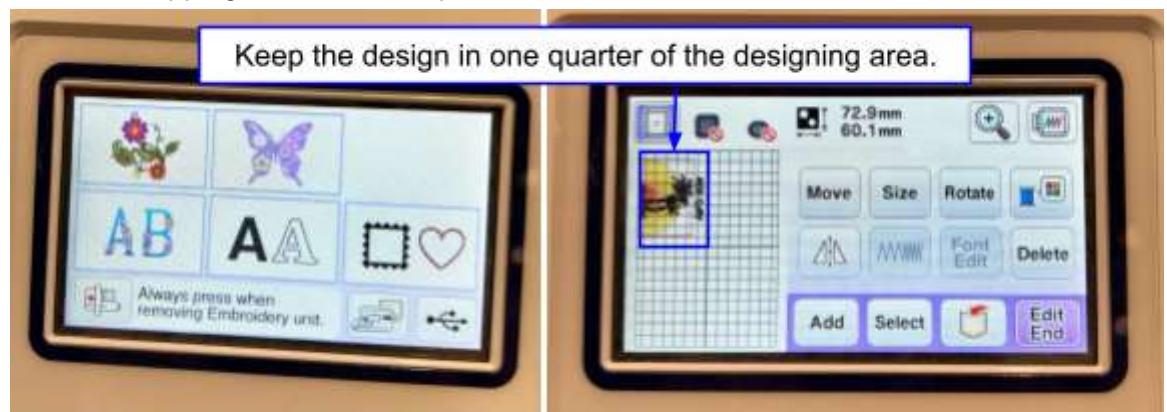
- e. Use the screwdriver to loosen the screw that holds the presser foot holder. Once the presser foot holder comes off. Press it to release the sewing foot. Store the foot and the presser foot holder in appropriate compartments.



- f. Put the embroidery foot in. Orient the foot appropriately then tighten the same screw to hold it using the screwdriver.



- g. Put the screwdriver back in the storage compartment.
 - h. Ask **SILab advisors** if you are not familiar with the process.
12. Turn the machine on.
13. Choose the patterns that you like from the provided patterns on the machine. Arrange the pattern, adjust the size, and change colors as desired.
- a. The opening of the frame is designed to be the same size as one-quarter of the embroidery area (See figure below). Keep your design in that area.
 - b. Keep in mind when changing colors that the actual color you would get is the color of the thread. See the blue cabinet for the threads we have.
 - c. Avoid overlapping more than 2-3 patterns.



14. Choose the fabric to embroider the design on. Cut it out to be a little bigger than the embroidery hoop.

15. Use the plastic guiding sheet to see where your pattern will be embroidered. Cut the supporting material and stick it to cover that area.

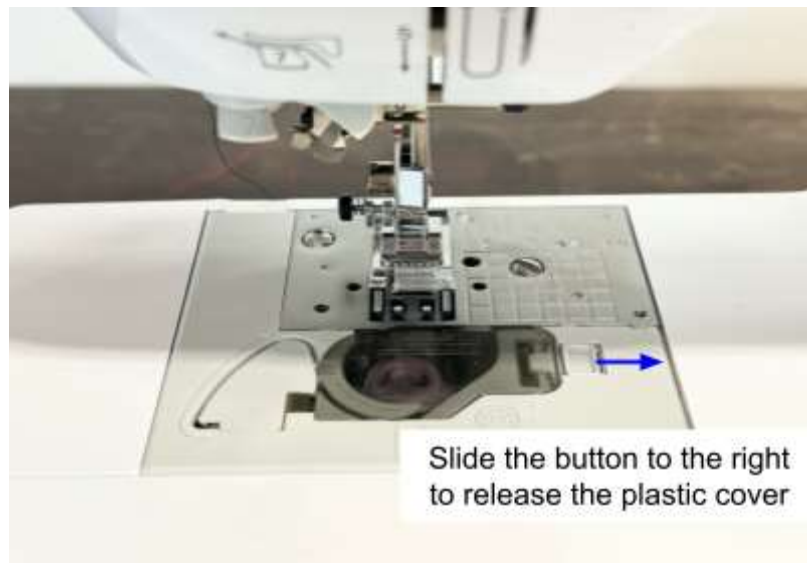


16. Loosen the screw on the embroidery hoop to put the fabric in. Tighten the screw. Use one hand to push the hoop down while pulling and stretching the fabric with the other hand. Tighten the screw more and repeat the process.

- a. Before tightening the fabric in the hoop, double check that the supporting material is in the correct position by putting the hoop in the machine.
- b. The fabric should be as tight/stretched as possible. If not, it can bend the needle during the embroidery process.
- c. To test if the fabric is tight enough, gently tap it with your finger. It should feel like a drum.
- d. Make sure the embroidery hoop is in the correct orientation. Look for a triangle on each hoop. In the correct orientation, the triangles point at each other.



17. Check the bobbin and make sure the bobbin spool is at least half full.
- a. Press the button to open the plastic cover near the metal plate. See the bobbin inside.

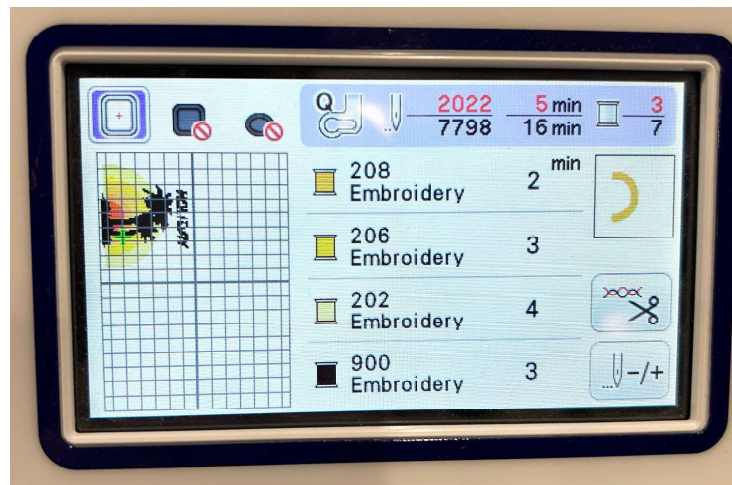


- b. Choose the bobbin color that is close to the color of your overall design. For instance, white bobbin is good for designs with light colors. Black bobbin is better for designs with darker colors. There are bobbins in the blue cabinet by the sewing/embroidery machine.
- c. If there is not enough bobbin, wind the bobbin. If you are not sure how to wind the bobbin, **ask SIlab advisors**.
- d. Put the bobbin in. Make sure the thread is in the correct direction. Thread the bobbin along the slot. The thread will be cut when it reaches the end. Put the plastic cover back in. (**scan the QR code on the machine** for more detailed bobbin threading instruction)

18. Put the hoop in the embroidery machine.
- Push the metal piece to the left. Push the embroidery hoop down into the metal lock. Then, release the metal piece to secure the hoop.



19. Click the “Edit End” button. The embroidery machine will show which thread color it would embroider first.



20. Thread the first color in. Click the button with an upward arrow to start embroidering.
a. If you are unsure how to thread the machine, scan the QR code on the machine for instructions.

b. Once the thread is in the needle, pull the end of the thread through the foot and towards the back of the machine.

Note: This is to prevent the machine from embroidering over the foot causing the foot to be embroidered to the fabric.

c. At the beginning of each color's embroidery, click the button with an upward arrow and let the machine do 2-3 stitches. Then, click the same button to stop the machine and trim the loose end of the thread.

Note: This is to prevent the machine from embroidering the loose end to the design.

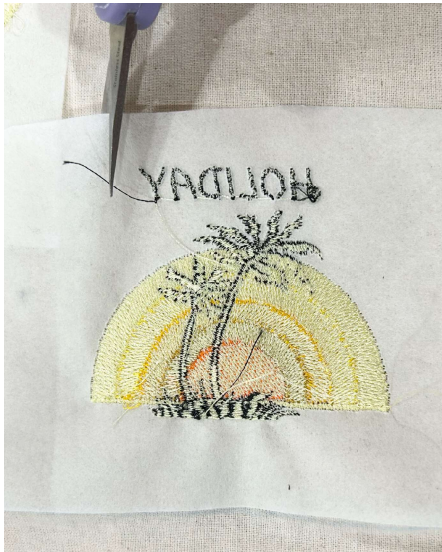
d. Click the same button to continue embroidering.



21. Once the machine is done with 1 color. Repeat step 20 for the next color until the embroidery is done.



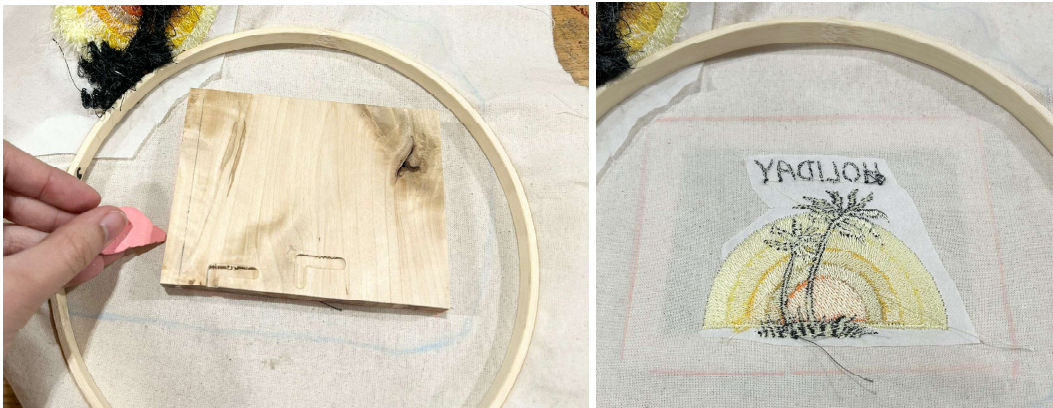
22. Take the embroidery hoop out of the machine. Take the fabric out.
23. Trim the excess thread and the supporting material on the back.
- If your design includes text, you can use a seam ripper to trim the thread connecting each letter.



24. Put the fabric in the hand embroidery hoop to stretch it out. Position the wooden frame you made earlier on top of the design.



25. Flip the frame and the hoop carefully such that the frame would be under the hoop. Put the other piece of wood on top of where the frame is. Use fabric chalk to trace around the piece.



26. Put superglue on the part of fabric that is on the frame. Press the other piece of wood on the glue.
- The glue will seep through the fabric and make all the components stick together.



27. Once the glue is dry, take the fabric out of the embroidery hoop. Trim the excess fabric that sticks out of the frame.
28. Congrats! You have made yourself a lovely embroidered picture frame !

