

Machine Embroidery Terms

****© Sewing Machine Fun. This document is not to be redistributed or sold. Please direct other embroiderers to <https://www.sewingmachinefun.com/embroidery-terms-glossary> to download.****

Applique: Using fabric instead of fill-stitches to create the colored area of a design with your embroidery machine.

Backing: Stabilizer placed on the back of fabric before embroidering or on the back of applique fabric. This can also refer to a layer of soft iron-on fabric that covers rough embroidery stitches on the back of shirts, onesies, and other items to be worn against the body.

Basting: Attaching an embroidered item to stabilizer by hand or machine using a box of long length stitches to keep blanks from shifting during stitching.

Bird's Nest: A big ugly mess of bobbin threads below the hooped embroidery item caused by uneven tension, poor stabilization, improper hooping, or even incorrect threading.

Blanks: An embroidery blank is any item you intend to embroider on. This includes anything from quilting fabric to shirts to cardstock cards

Bobbin: A plastic or metal ring that holds the bottom thread, which forms the underside of an embroidery design. Bobbins fit in the small bobbin case at the base of home embroidery machines.

Cross-Stitch Embroidery: An embroidery design mimicking hand cross-stitching that can be stitched on Aida cloth for added effect.

Customization: Changing a design to meet your needs by adding lettering, changing thread colors, etc.

Design Transfer: Take designs from one source to another. Ex: from a computer to your embroidery machine via WiFi, a wired connection, or USB drive.

Digitize: Creating an embroidery design by adding and placing stitches on an image. There are two main types:

- **Auto digitizing:** Using an embroidery program to place these stitches for you. Results vary depending on the complexity of the design.
- **Manual digitizing:** Creating the embroidery design by hand, placing the stitches yourself.

Dimensional Embroidery: Stitching designs on a thin fabric like organza, cutting the design from the fabric, and stitching it to another blank resulting in a 3D, raised appearance.

Editing: Using embroidery software to change stitch properties of a design.

Embroidery Foot: The metal presser foot used during machine embroidery. It has a large hole in the center where the needle and thread pass through.

Embroidery Hoop or Frame: The plastic or metal object that holds the embroidery blank and stabilizer taut between its two layers. It attaches the machine's embroidery arm.

Embroidery Needles: Specialized needles with an elongated eye and widened groove to decrease friction between the thread and eye of the needle.

Embroidery Scissors: Specialized small, sharp scissors are used to clip applique, jump threads, and more.

1. **Curved Embroidery Scissors:** These have a slight curve at the tip, making them better for clipping applique fabrics while still in the hoop.
2. **Double-Curved Embroidery Scissors:** In addition to a curve at the tip, the handle has a curve so you can easily clip jump stitches when the hoop is still in the machine.
3. **Duckbill Applique Scissors:** One side is long and sharp, while the other has a pelican or duckbill shape. These are used to clip away stabilizer or applique fabric. When placing the duckbill portion against the base fabric, the likelihood of snipping that fabric is decreased.

Embroidery Software: A computer program used to edit, customize, or digitize designs for machine embroidery.

File Converter: Software that converts one type of embroidery file (ex: .pes, .jef) into another type of embroidery file (ex: .dst, .hus).

File Format: The three letters after the period in a saved embroidery design name designating whether a specific software or embroidery machine can read the file.

Fill Stitches: The most common type of embroidery stitch, fill stitches are closely-placed stitches that cover an entire design area. Changing properties of the fill stitches can provide dimension and texture to an embroidery design.

Floating: Technically, placing a piece of unattached stabilizer in the embroidery area. However, this term now generally refers to hoopless embroidery, which means using only stabilizer in the hoop and attaching the item to be embroidered outside the hoop.

Free-Standing Lace (Lacework): Stitching specialty digitized designs onto water-soluble stabilizer, which is removed after the embroidery process to leave a lace appearance.

Hat Hoop (Cap Frame): A special hoop used when embroidering hats and caps. Multi-needle embroidery machines with free arms use rounded cap frames, whereas single-needle, flatbed machines have flat hoops to help flatten the cap to be embroidered in a single layer.

Hoop Burn: Marks or a residual hoop shape left on the blank after it's removed from the hoop. These often fade with washing or Magic Sizing spray.

Hoop Size: The size of the hoop is a rough estimate of the embroidery field or embroidery area, which correlates with the biggest design you can stitch at one time.

Hooping Aid: An item used to make machine embroidery hooping much simpler, especially for two-layered items like shirts and onesies.

Hooping: Securing stabilizer and fabric within the hoop of the embroidery machine tautly. Not all embroidered items can be hooped.

Interfacing: An extra layer of woven or non-woven material permanently fused to the back of a blank to increase the stability of unstable fabrics or minimize stabilizer show-through on light-colored fabrics.

In-the-Hoop (ITH) Designs: In-the-hoop designs are projects stitched entirely in the hoop.

Jump Stitches: When a machine jumps from one part of a design to another, the thread between the two locations is called a jump stitch.

Machine Embroidery Thread: Different from sewing thread, machine embroidery thread is made in more luxurious colors and can withstand friction better than sewing thread. It comes in different weights and materials.

Marking: Using a tool like a water-soluble pen, chalk wheel, or placement sticker to denote the center of where an embroidery design should be stitched.

Prewound Bobbins: Bobbins in your machine's size that are factory wound with white, black, or colored thread. These save tremendous time!

Puckering: Rather than lying flat, fabric wrinkles and is wavy at the borders of embroidery designs. Puckering is often caused by incorrect stabilization, movement during embroidery, or a poorly digitized design.

Puffy Foam: Puffy foam is placed underneath embroidery satin stitches to give a 3-D elevated appearance. Foam-raised embroidery is especially common on caps.

Registration: How different parts of an embroidery design align when stitched. An example of poor registration is when the outline of a design is outside the fill-stitch inner portions of the design.

Running Stitch: A line of stitches used in underlay, redwork, free-motion quilting designs, placement stitches, and more.

Satin Stitch: A short-length zigzag stitch that creates a column. Often used as a border in applique embroidery designs and alphabets.

Scaling or Resizing: Changing design size, which only works in moderation.

Split a Design: Using software to break apart a large design into smaller pieces that can be stitched in multiple sessions by a smaller embroidery machine.

Spray Adhesive: Used to temporarily adhere fabric and stabilizer together during the embroidery process.

Stabilizer: The backing that goes behind or underneath an item to be embroidered to provide stability and support stitch integrity. There are many stabilizers, and each comes in different weights (thicknesses.)

1. **Cut-away stabilizer:** The most stable, this paper-like stabilizer permanently provides support for dense designs and stretchy, unstable embroidery blanks.
2. **Tear-away stabilizer:** More unstable than cut-away stabilizer, tear-away stabilizer supports non-stretchy, stable blanks and designs with a low stitch count. It is torn off after stitching.
3. **Wash-away stabilizer:** A stabilizer or a topping that is washed away with water after embroidering. Wash-away (or water-soluble) stabilizer can also be dissolved in water and that solution used to stiffen fabric.

4. **Heat-away stabilizer:** Most often used as a topper and removed with an iron.
5. **No-show mesh stabilizer:** A type of cut-away stabilizer that is softer and decreases stabilizer show-through on light-colored embroidered items. PolyMesh is another name.
6. **Adhesive stabilizer:** Also known as sticky self-adhesive stabilizer or even adhesive-backed stabilizer, this is a layer of stabilizer (most commonly tear-away or wash-away) with a layer of adhesive on the top that shows when you peel off the sticker top.
7. **Fusible stabilizer:** Temporarily fused by an iron to embroidery blanks to help hooping and stabilization. It can be cut-away or tear-away.

Stitch Count: The total number of stitches in an embroidery design. Larger designs have higher stitch counts and take longer to stitch out. Also, the stitch count of a machine can refer to the total number of stitches your machine has made over its lifetime.

Stitch Density: The distance between stitches in a digitized design. In software, *increasing* the stitch density makes the design *less dense*.

Stitch Out: A sample or trial run of the embroidery design to check settings. This is a great idea when you first start creating your own embroidery designs.

Stitching Speed: How fast the embroidery machine stitches. The unit of measurement is spm, or stitches per minute.

Templates: A print-out of the embroidery design that can be used for placement. Or, the plastic template, which goes over your hoop to denote the embroidery field.

Tension: The relationship between the pressure applied by the top and bottom threads. Balancing tension is essential for achieving perfect stitches.

Thread Net: Placed around threads to help them feed more evenly through the machine. Especially useful for metallic and other slippery threads.

Thread Stand: Hold threads vertically for better feeding. Thread stands also hold thread cones or spools too large to fit on the machine.

Topping: Usually water-soluble (but can be heat-soluble) and goes on top of embroidery blanks with nap or pile to prevent stitches from sinking.

Underlay: Stitched first in embroidery designs as a foundation and to attach the fabric to the stabilizer and provide extra support to the area to be stitched. Underlay stitches can also be used to flatten fluffy fabrics, keeping designs embroidered over them from getting lost.