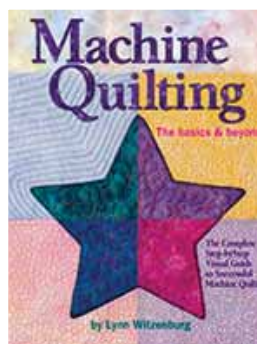


A Basic Guide For Machine Quilting

BONUS
8 super-simple free
motion design ideas



Originally published in the book

Machine Quilting The basics & beyond

by Lynn Witzenburg

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Look Inside page guide



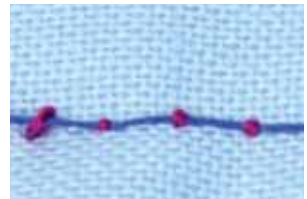
1 Building a Practice Quilt Sandwich



2 Bringing Up The Bobbin Thread



3 Beginning & Ending a Line of Stitching



4 Tension & Troubleshooting



7 Beginning Doodling



9 Practice Patterns



13 Stitch-in-the-Ditch



15 Free-motion Background Tips

Online Video Series

19-part Machine Quilting Video Series

A complete step-by-step visual guide from teacher and master machine quilter Lynn Witzenburg that takes quilters through the basic steps of quilting on a home sewing machine. Visit [YouTube.com/LandauerPublishing](https://www.youtube.com/LandauerPublishing) for the complete playlist and all of our great videos.



building a practice quilt sandwich

A practice quilt sandwich can be any size as long as the back is larger than the top. I recommend a 22" x 22" piece of muslin for the back and a 20" x 20" piece of muslin for the top. The batting needs to be larger than the top so anything 21" x 21" or larger will work. Using a lower loft batting will make things easier because there will be less bulk under the needle. Muslin or any other plain cotton fabric will work for the top and back. The color thread you choose should contrast with the fabric.

Press both pieces of fabric flat. Lay the backing fabric on a table top and tape the four corners of the fabric to the table with masking tape. **The fabric should be taut, not stretched.** Add one more piece of tape to each side.

Smooth the batting over the backing. There is no need to tape it down. Smooth the quilt top over the batting. There should be backing and batting extending out from under the top piece on all four sides.

Using your Kwik Klip™, insert safety pins in random order across the quilt top. Be sure to catch the backing, batting, and top with the pins. When you place your closed fist on the quilt top, you should be able to feel one or two pins, if not add a few more. You don't need any more pins than one or two per fist size especially on a quilt top this small. Once all the pins are in, remove the tape, and you are ready to start practicing.



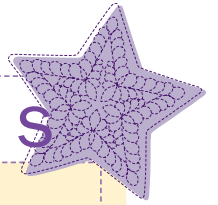
tip

Always keep a practice quilt sandwich

Make it a habit to keep a practice quilt sandwich near your sewing machine, so you can test the way various threads react when you start a line of stitching. Different threads require different levels of securing in order to keep them from unraveling. For example, cotton threads are often the easiest to secure, because the cotton fibers of the thread mesh together easily with the fibers of the cotton fabric. Other threads, such as polyester and rayon, are more slippery and usually require taking a couple of extra stitches to secure. Metallic threads can be even more challenging and require extra locking stitches at the beginning of your line of quilting.

A practice quilt is a smart way to test your thread tension before beginning any project.



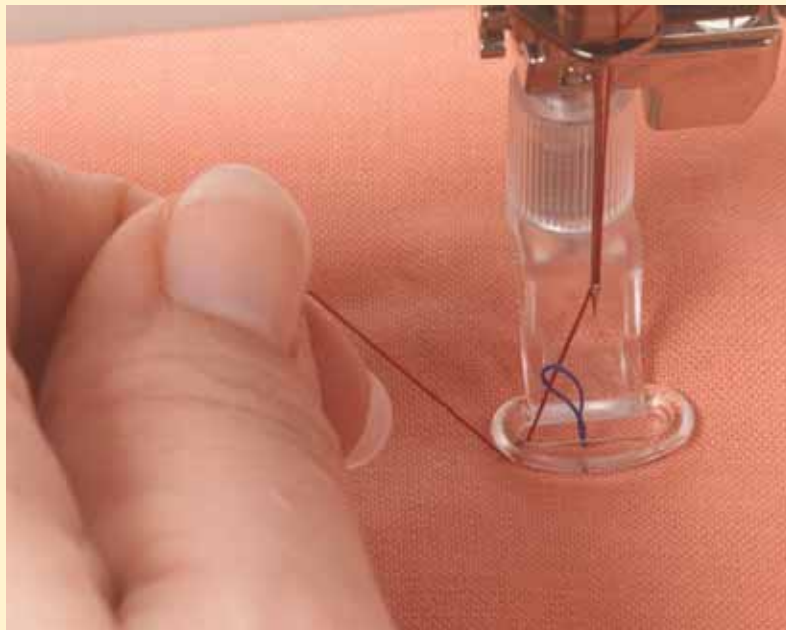


bringing up the bobbin thread

Before you begin any type of machine quilting, you will need to bring the bobbin thread up to the top of the quilt sandwich.



Lower the feed dogs on your sewing machine and lift the free-motion foot. Place the practice quilt sandwich under the foot where you want to begin quilting. Holding the top thread securely in your left hand, lower the needle into the quilt sandwich. On some machines this can be done with a single heel tap on the foot pedal or the touch of a button.



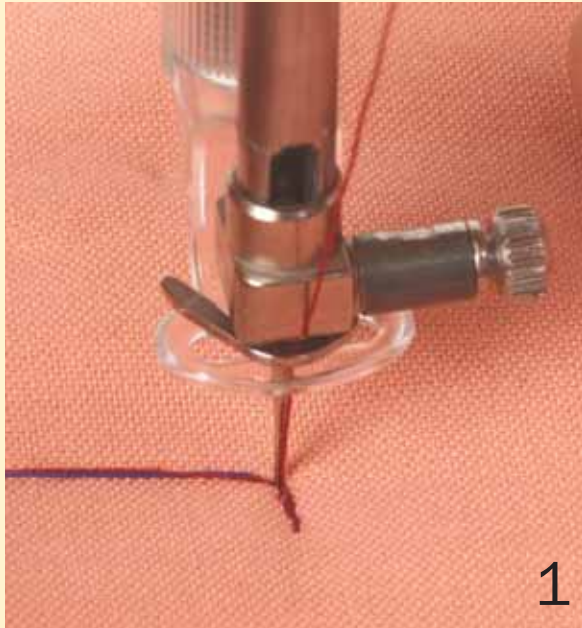
Lower the foot and take one stitch. The bobbin thread should pop up. If it doesn't, try again. It may help to take the first stitch with the foot raised, or to start in a different place on the quilt sandwich. Hold both the top and bobbin threads when taking your first few stitches.



basics

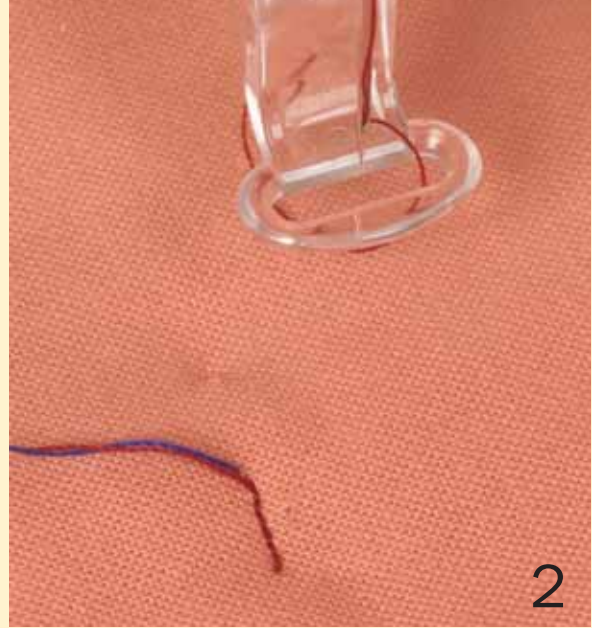
beginning and ending a line of stitching

When beginning a line of machine quilting stitches, the threads of the first few stitches need to be secured, so they won't come undone. The visibility of the stitches should be as minimal as possible.



Method #1

One way to secure the beginning line of stitching is to lower the presser foot while holding the top and bobbin threads in your left hand. Take two or three stitches forward, then stitch backward over these same stitches, and forward again. The goal is to have as small a build-up of stitches visible as possible. Clip the beginning threads, so they do not become tangled in the subsequent stitches.



Method #2

Another way to secure a line of stitching is to take five or six very small stitches at the beginning. Make these stitches as small as possible, while still moving forward.

Securing the ending line of machine quilting stitches is the same as beginning. Sew backward over two or three stitches or take five or six very small stitches to end. If you choose the latter method, remember to stop your line of regular quilting stitches just short of the ending point to leave room for the small stitches.

thread tension

The top thread and the bobbin thread on your machine should lock somewhere in the center of your quilt sandwich with each stitch. This may mean adjusting the thread tension on your machine. It may seem a bit intimidating if you have not done it before. Read through the following guidelines and tips to achieve perfectly balanced quilting stitches.



Make only tiny adjustments to the top tension dial.

Do not roll the tension dial on your machine. It is very sensitive and often small changes are all that is needed to correct the tension. Take time to test the tension by stitching on a practice quilt sandwich after each adjustment. Evaluate your results and then go back and make further small changes, if necessary, until your stitches look perfect.



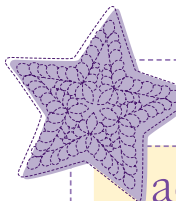
Thread the top thread through a thread stand.

This inexpensive tool is extremely helpful when using large thread cones. It will also help eliminate thread tension problems. Set the thread cone or spool on the metal post and thread it through the loop at the top and the normal threading route on your sewing machine. This creates less pull as the machine takes the thread from the spool, resulting in more even stitch tension.

tip

Thread ages

so keep in mind that threads from older spools may tend to break more often. Try a newer spool to see if the problem goes away. Storing thread in plastic bags in the freezer keeps it from aging as quickly.

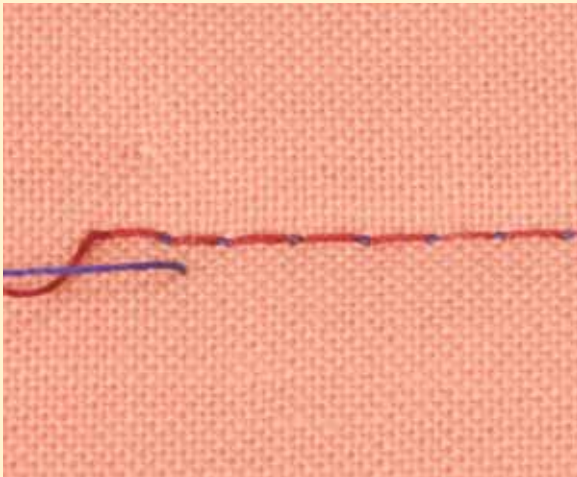


basics

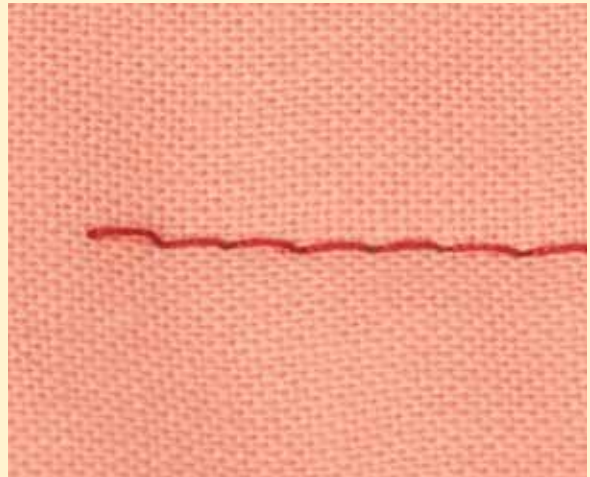
adjusting top tension

When practicing your quilting use contrasting thread colors on the top and in the bobbin to make tension problems easily visible. When beginning an actual quilt, always test new thread combinations on your practice quilt to get tension balanced.

Bobbin thread showing on top

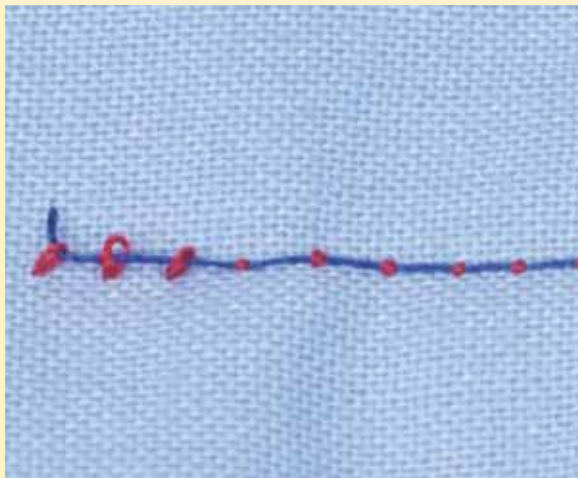


If you see the bobbin thread coming through to the top of your quilt, the top tension is too tight.

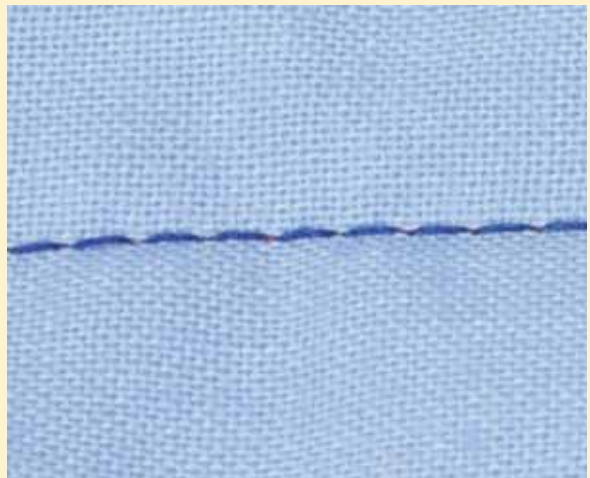


To correct this problem, lower the number of the top tension dial on your machine 1/4 to 1/2 number to loosen it. Do some test stitching on a practice quilt sandwich to see if your tension is better. Keep making small adjustments and testing the results until the problem is solved.

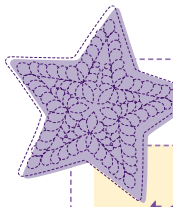
Top thread showing on back



If dots of top thread are showing on the back of your quilt, it means the top tension is too loose.



To tighten the top tension on your machine move the number on the dial higher. Remember to always move the dial in tiny increments until you solve the problem.



basics

tension troubleshooting

- **Oil and clean your machine regularly.**

Make it a habit to clean and oil your machine regularly. It will last longer and produce better machine quilting stitches. Have your machine serviced yearly by a professional.

- **Use the right needle for the right thread.**

Experiment with different needles if you're having trouble balancing the tension. If you are in doubt about which needle to use with which thread, check with your local quilt shop. Checking the web page of the thread company for the thread you are using can also be a great source of information regarding which needle works best.

- **Replace the needle of your machine.**

A dull needle could be the cause of your thread tension problem. Try changing to a new needle if you're having problems and know it's been awhile since you've inserted a new needle.

- **Rethread the top and bobbin threads.**

Rethreading the top and bobbin threads can sometimes solve the problem and is usually the first thing I try when sudden tension problems occur.

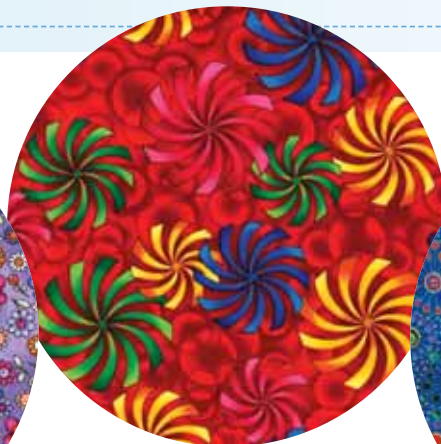
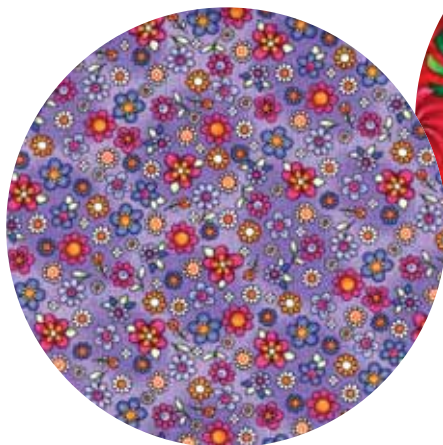


tip

Disguise the problem

Using the same color and weight thread in the bobbin and on the top can eliminate, or mask, tension problems.

Small prints on the back of your quilt will help disguise your quilting stitches. This makes them a great choice for those times when your tension may be good, but not perfect.



beginning doodling

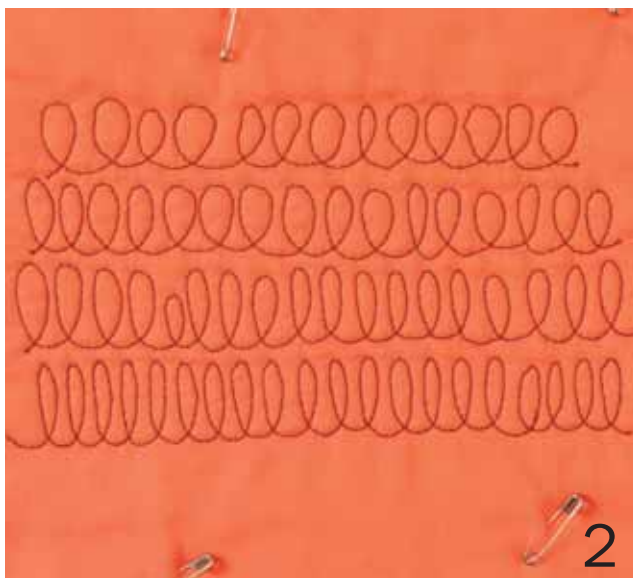
I like to use the word “doodling” when talking about free-motion quilting. It conveys the idea of something that is easy, relaxing, and fun. There are no rules that need to be followed when you doodle and it’s a great way to learn how to machine quilt. If you enjoy doodling on paper you are already on the way to becoming a great free-motion machine quilter.

“L” Loops

It’s easy to become good at free-motion quilting, when you stitch shapes already familiar to you. Loops that resemble a lower-case, cursive “L” will allow you to become familiar with the motions needed for this type of stitching.



Put the free-motion foot on your sewing machine, lower the feed dogs, and place a plain practice quilt sandwich beneath the needle. Bring up the bobbin thread and secure the first stitches. Activate the needle down feature on your machine, if you have it. Begin stitching slowly, focusing on controlling your stitch length as you move the quilt sandwich under the needle. Using your hands to guide the quilt sandwich, control the speed of the needle with the amount of pressure you put on the foot pedal. Relax and stitch a few L-shaped loops. Practice coordinating the movements of your hands with the pressure of your foot on the foot pedal. This takes time and practice, but is important to master at the beginning. Use any stitch length you like as long as you strive for consistency from stitch to stitch. Always keep the top edge of your practice quilt sandwich in the same position as you stitch. Move it around freely, but do not turn it.



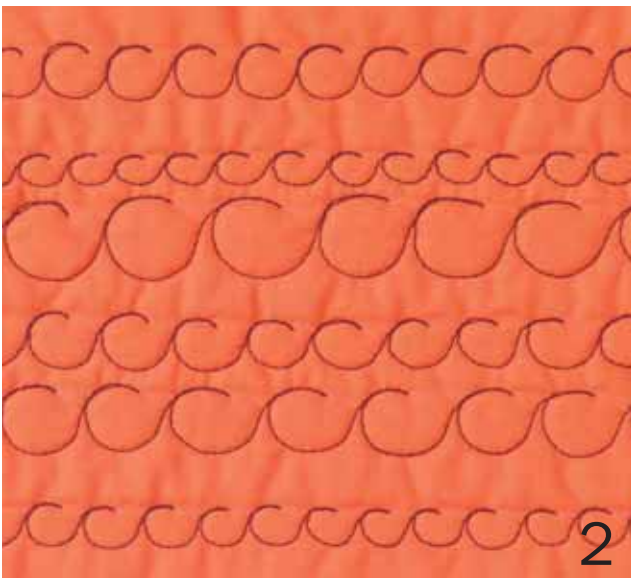
Doodle another line of L-loops, focusing again on moving the quilt sandwich and the foot pedal in rhythm. If your stitch length looks too long, slow down the movements of your hands, or press harder on the foot pedal as you stitch. If your stitches are too short, speed up your hand movements, or ease up on the foot pedal. If your L-loops are not smooth and rounded, try speeding up the movement of your hands and machine. Take your time and cover the entire quilt sandwich with L-loops. You’ll be able to see an improved progression between your first L-loops and your final ones.

“C” Stitches

Lines of “C” stitches are great for developing the movements needed to quilt beautiful feather designs. Feather designs require stitching back over the same line of stitches, as you do when quilting the letter “C”.



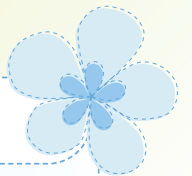
Begin by bringing up your bobbin thread and securing your beginning line of stitching. Begin to move the quilt sandwich so your stitches create the top curve of a cursive letter “C”.



Retrace the top curve of the “C” and continue bringing your line of stitching down to create the lower curve to finish the letter. Stitch as many “C” shapes as you can on the quilt sandwich. Make some large and some small. Keep practicing. This stitch is essential when creating feather designs.

“Quilter’s gloves are very helpful, but I often use a little Neutrogena® hand cream instead of the gloves. Be sure to rub it in well. Either one will help you keep a good grip on the fabric and reduce the amount of stress on your arms and shoulders.”

tip



Get a grip

Keep a good grip on the fabric under the needle. This is important for eliminating the possibility of puckers on the back and front side of your work.

practice patterns

When you are comfortable with the coordination it takes to control your stitch length, cover a few practice quilt sandwiches with these patterns. Stippling resembles the curved edges of puzzle pieces. It is basically stitching without any corners or straight lines. The scale of stippling can go from tiny stitching to a very large-spaced design used to fill in background areas. Before you start practicing, check your tension and make any adjustments necessary. Refer to thread tension on pages 23-26 for more information.



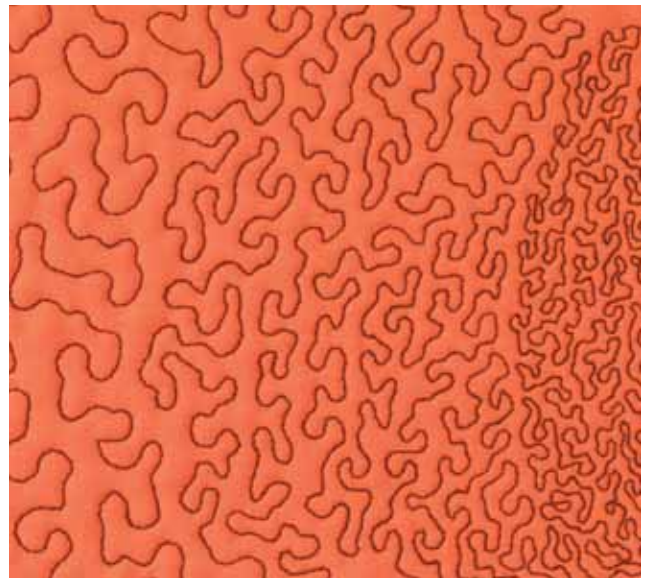
Medium-Sized Stippling

Bring up the bobbin thread and secure the beginning stitches. Clip the beginning threads.

Start stitching medium-sized smooth, rounded shapes. Achieving smooth and rounded stippling will take practice. Stippling will take time and patience to master, but it is well worth the effort.

To move to another space in your quilt sandwich, continue stippling into that area, and it will appear as if it belongs in the design.

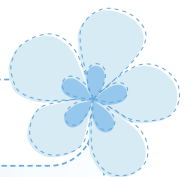
“Some people like to assign rules to stippling, such as not crossing over previously stitched lines. If you find you have to cross lines to get from one space to another, make a point to do it several times so it looks like part of your overall pattern.”



Stippling

Try stippling in different scales with the curved lines and the distance between stitching lines varying in size. Keep in mind that consistency is pleasing to the eye and continue moving your hands smoothly as you press on the foot pedal.

tip



For stippling different types of blocks/quilts

As you fill in around appliqué or patchwork, take care in planning your progression from one area to the next. This will reduce the number of times you will need to stop and start.

When you stipple quilt on a patchwork block, you can stitch in the ditches of the block to go from one area to another.



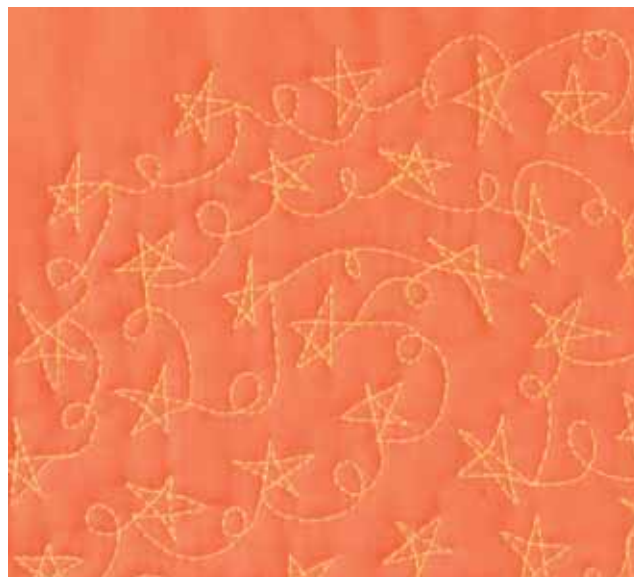
Hooks and Curves

Try playing with angles, or add hooks to your lines of curved quilting.

tip

If your stitches are uneven

speed up and see if your stitches become more uniform. If your stitches are too long, move your hands slower or speed up the machine. If your stitches are too little, move your hands a bit faster or slow down the machine.



Loops and Stars

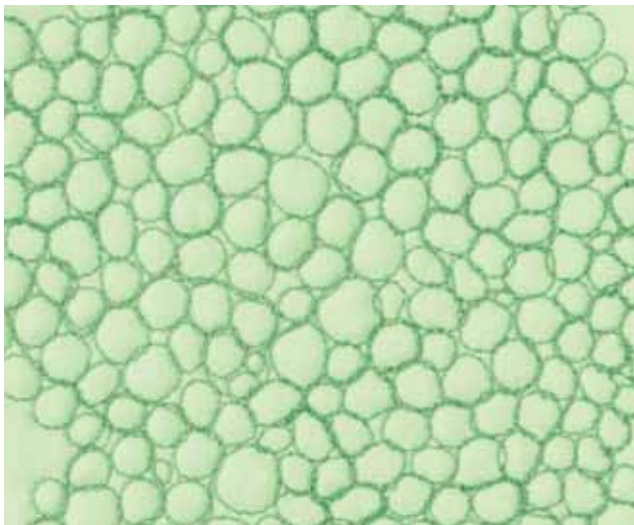
Experiment with stars and loops. I add the loop between the stars because it helps reposition the needle for starting the next star.

“I learned small mistakes are not a big deal. I've quilted bobbles but didn't want to stop stitching and correct at that time. Later when I tried to find my mistake, I could not see it anywhere, no matter how hard I searched.”

tip

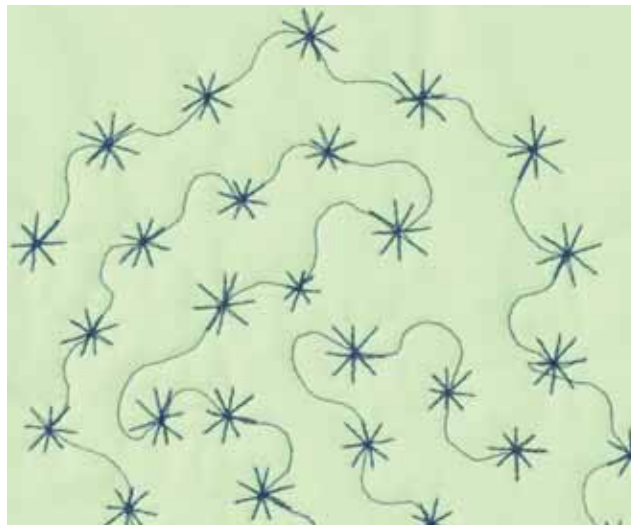
Do not stitch

over or too close to the safety pins in your practice quilt sandwich or in any quilt project. If the pins lie within 3" or 4" of the needle, stop and remove them before you continue stitching.



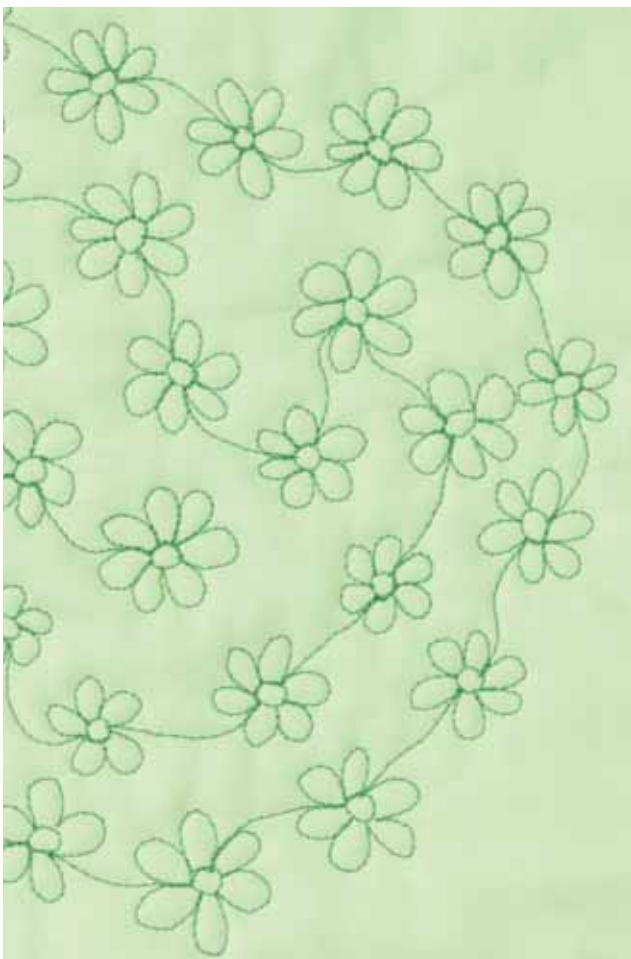
Circles

Varying sizes of circles stitched close together will resemble a cobblestone wall. This is easy once you get the hang of it. Rocks and stones are not all the same shape, so different sizes and shapes will look natural.



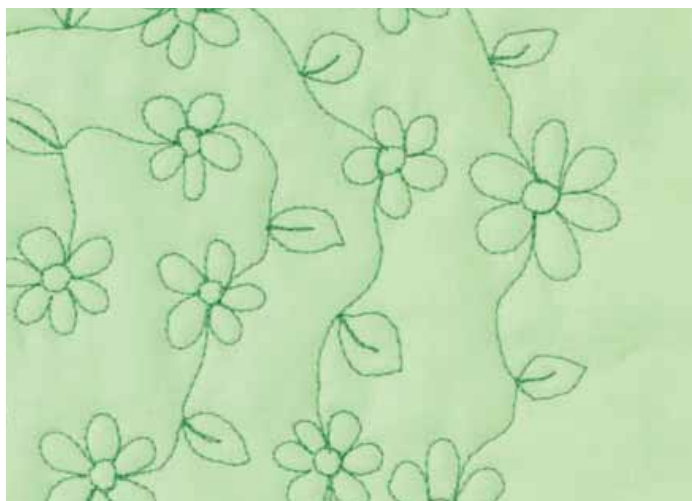
Snowflakes

You will be stitching over previous lines of stitching to form these flakes. Don't let that scare you. The best thing about snowflakes is no two are alike.



Flowers

1. Stitch one petal. At the base of the petal make a circle for the flower center.
2. Continue stitching petals around the center connecting to it each time.
3. When all the petals have been stitched around the center, retrace lines to continue to the other side of the flower and begin making the next flower.

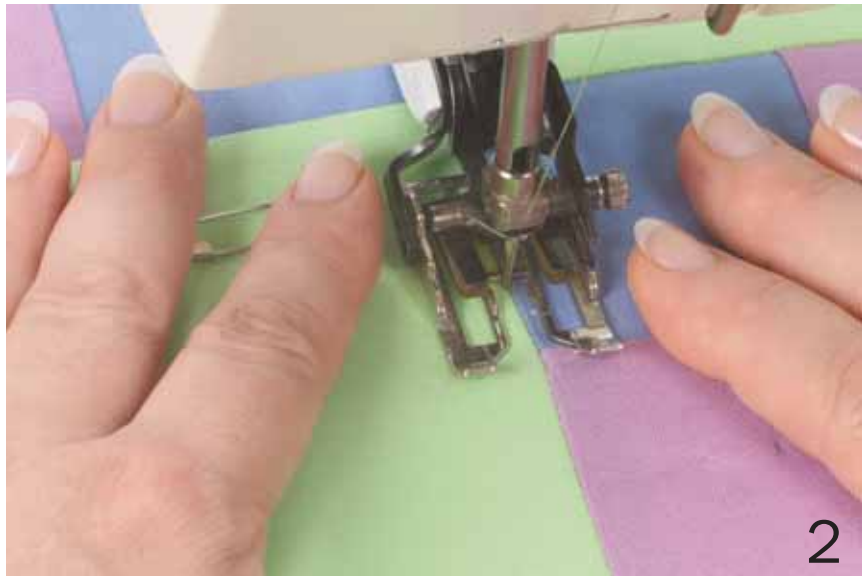


machine-guided stitching

Stitching in the ditch is sewing quilting stitches along the seam lines in patchwork. This is a great way to accentuate pieced designs and strengthen the seams in your quilt. Typically, I stitch all the outline or ditch stitching on my quilt first. This stabilizes the quilt and allows you to remove many basting pins. If you have done a good job basting, you can begin stitching on any area of the quilt.



Attach the walking foot, raise the feed dogs, and place your quilt sandwich in the machine. The first seam you want to stitch should be under the needle. Bring up the bobbin thread and secure the beginning stitches. Take a few stitches and clip the threads.



Grip the fabric on either side of the needle and pull seam apart firmly. This will flatten the fabric and make the seam easy to see. Start stitching directly into, or as close to, this seam line as possible. Keep a good grip on the fabric as you stitch. Stitch to the end of the seam. Secure stitches and clip the threads. Place the quilt sandwich in position for stitching the next seam and repeat directions above for each seam you want to stitch.



Stitch control

Since the machine is guiding the fabric, it will control your stitch length. Adjust it using the stitch length regulator on your machine to get the length you prefer. There are no rules, so use the stitch length that appeals to you.

free-motion stitching

Using a free-motion foot for stitching in the ditch enables you to quilt in any direction without turning your quilt. Use a free-motion foot for any ditch quilting that does not extend from one end of a quilt top to the other.



Attach the free-motion foot, lower the feed dogs, and place your patchwork quilt sandwich in the machine. The first seam you want to stitch should be under the needle. Bring the bobbin thread up and secure the first stitches. Clip the beginning threads.



Grip the fabric on either side of the needle and pull the seam apart. Stitch directly into, or as close to, the seam line as possible. As you practice, don't be concerned with hitting the ditch perfectly with every stitch. The more you practice the better your stitching will become.



Continue stitching in the ditch of each seam. Stitch as far as possible without stopping. This may take some planning but will save time in the end. You can jump from one stopping point to the next starting point and clip the connecting threads later. Remember that you can go any direction necessary without turning the entire quilt. When you reach an area where you can't stitch any farther, secure and clip the threads.

No walking

Limit your use of the walking foot to stitching the seams that run the full width or length of your quilt. Overuse of the walking foot can become a habit and create frustration when you're stitching a large quilt that is difficult to turn. Practice stitching in the ditch with the free-motion foot as much as possible. It will speed up the process significantly.

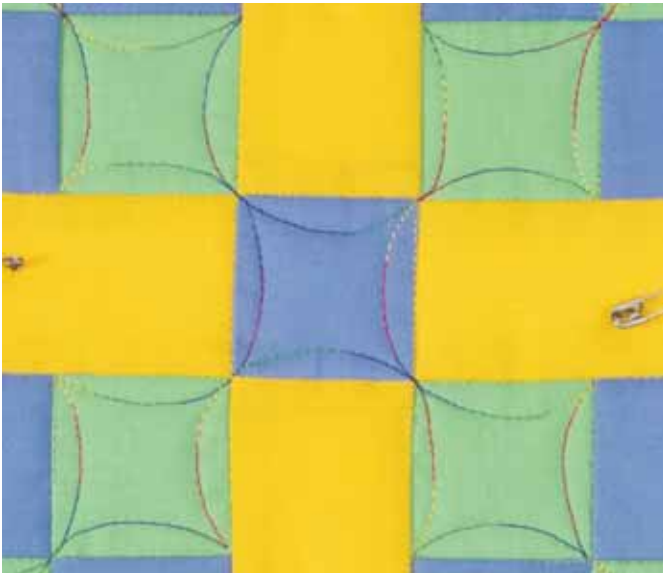


free-motion unmarked background designs

When quilting large free-motion unmarked designs in background areas, follow these suggestions.

Keep starts and stops to a minimum

- Before you begin stitching it may be helpful to do some sketching on a piece of paper to determine how to keep your design continuous. You do not need to mark background designs such as echo quilting, stippling, or other doodling types of design.



Try stitching crescents

- Use simple crescent shapes that go from corner to corner on four-patch or nine-patch quilt blocks. Crescents are completely continuous, lots of fun to stitch, and can be done on an entire quilt without stopping. They are also a great way to add curves to a quilt top that is mostly straight lines. Don't worry if the arcs aren't all exactly the same on your crescent shapes. The end result will still be spectacular.



Don't stitch yourself into a corner

- Try not to get yourself trapped in an area you can't stitch out of without stitching across a previous line or stitching where you weren't planning to. If this happens, jump or stitch in the ditch to get to the next unquilted area.



Echo quilting

- Echo quilting is an effective way to accentuate a pieced or appliquéd design. It does not need to be marked. Strive for the same amount of space between quilting lines. As you complete each revolution around the design, take a few securing stitches and jump to begin the next round. Clip the threads when you have completed the block.