

What is ruler work or template quilting?

- ❑ Ruler work is a style of quilting that uses a special foot and acrylic templates to achieve a specific shape.
- ❑ It is still free motion quilting. Any time your feed dogs are not pulling the fabric, it can be considered free motion.
- ❑ It is a way to achieve a precise and repeatable design in a way even the most practiced free motion quilter could never achieve free hand.

TEMPLATE QUILTING IS FREE MOTION, BUT IT'S GUIDED FREE MOTION

Imagine you've moved to a new city, and you need to find your way to the local quilt shop.

- ❑ Free motion is like having a map.
 - ❑ You will get from point A to point B, but it will require a little more thought, you might make a wrong turn or two, you will have to try different routes to figure out which one avoids traffic.
- ❑ Template quilting is like having a GPS
 - ❑ Your GPS will guide you every step of the way from point A to point B. All you have to do is listen to it, and follow its directions. You still might make a wrong turn, but your GPS will get you back on track to your destination.

What do you need to get started

- Sewing machine in good working order
- Extension table for your machine
- Quality thread
- Ruler foot
- Templates
- Stable tape or Handi Grip
- Sew Steady Free Motion or Grid Glider or Supreme Slider
- Spacing gauge
- Fabric marking tool of your choice (Frixion pen, water soluble marker, air erase marker, iron-off chalk.)

SEWING MACHINE IN GOOD WORKING ORDER

Whether you are quilting on a domestic machine or a longarm, we want it to be in optimum operating condition.

Have you?

- Cleaned your machine, especially around the bobbin area
- Oiled your machine
- Replaced your needle

EXTENSION TABLE OR RULER BASE

Templates require a large, flat work surface. This will aid in supporting the weight of your quilt, and more importantly keeping your template from rocking and potentially slipping under your needle.

- ❑ Your machine might have come with an extension table, or may be available from your machine manufacturer.
- ❑ Sew Steady offers a variety of tables, custom cut to fit your machine.
- ❑ They are made of high quality acrylic, can be used as a light box, and have features such as a beveled edge and adjustable feet, and permanent ruler.
- ❑ Some models have storage drawers holes for the circle sewing tool.



Sew Steady Wish Table

RULER FOOT

We always need the right tool for the job. Ruler work requires a ruler foot. You can see from the pictures on the right, that the ruler foot is taller than the free motion foot. This allows you to safely glide your foot against the template, without worrying that the template will slip under or over your foot.



Free Motion
Quilting Foot



Westalee Ruler
Foot

WESTALEE RULER FEET

Westalee DESIGN RULER FOOT & TEMPLATE SIZE GUIDE

To determine your shank size: Lower your foot and measure the distance between the center of the hole for the foot mounting screw, and the needle plate (reference images to the right). We offer 4 different 1/2" Ruler Foot styles and 3 different thicknesses of templates based on shank height. The "1/2" refers to the diameter of the foot. This results in a stitch line that is always 1/4" from the outer edge of the foot.



DOMESTIC MACHINE 1/2" RULER FOOT SIZES



High Shank Special Foot (HSS) High Shank Foot (HS) Medium Shank Foot (MS) Low Shank Foot (LS)

High Shank (HS) Templates for both HS & HSS Feet Low Shank (LS) Templates for both LS & MS Feet

[Flip over for listing of popular machine models and their recommended Ruler Foot & Template sizes.](#)

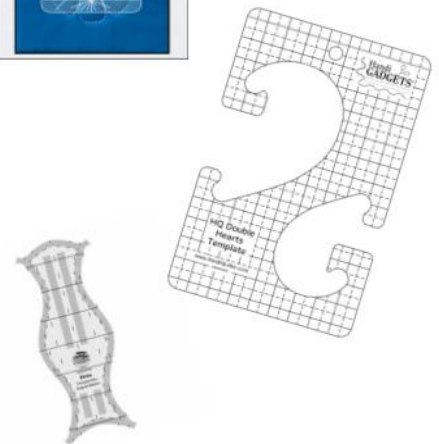
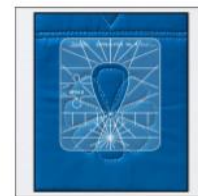
MARKETING@WESTALEE Subject to change. Last updated OCT 1st, 2019

- ❑ Westalee makes ruler feet for every domestic sewing machine on the market, all you need to know is your shank height.
- ❑ Some machine manufacturers make their own ruler feet such as, Janome and Bernina.

TEMPLATES

No matter which shape, angle, or curve you want to quilt, there is a template made for it. Westalee manufactures over 400 templates in various shapes and sizes.

- ❑ Sometimes you will use the whole shape, sometimes just part of it
- ❑ Sometimes you will use the template as intended, other times you will get creative



HOW TO CHOOSE A GOOD TEMPLATE

When you're in the store or online surrounded with choices, there are a few things to consider before you pay out your hard earned money on a piece of acrylic.

- Shank height
- Quality
- Size of the template
- Usefulness

SHANK HEIGHT

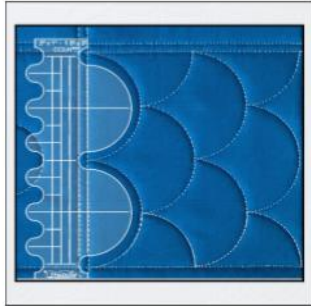
It is important to consider the height of the template in comparison to the height of the shank of your machine. Templates come in three heights, low shank, high shank, and longarm. A low shank template will be $\frac{1}{8}$ " thick, a similar height to your rotary cutting ruler, high shank is $\frac{1}{4}$ " thick, and longarm are usually .35" thick.

- ❑ High shank and longarm rulers can be used on a low shank machine. However, you will not be able to work from the back of the foot. You would need to rotate your project, which could be problematic if working on a large quilt.
- ❑ High shank rulers can be used on a longarm and vice versa, usually without issue.
 - ❑ Longarmers may want to stitch a little more carefully with a high shank template as it is slightly more likely to slip under the hopping foot.
- ❑ Low shank rulers should never be used on either a high shank machine or a longarm. Their low profile makes it all too easy for the ruler to slip under or over the foot, which could break your ruler, your needle, and/or throw your machine out of timing.

QUALITY

Just like everything in life, you get what you pay for. Westalee, Handi Quilter, and Creative Grids are three major manufacturers of rulers. There are many other smaller companies that are selling quality products. Many longarm quilters have developed their own line of templates that they sell on their website and Etsy. Unfortunately there are also some that are marketing cheap knockoffs.

A quick search on Amazon let me to the rulers in the top picture. These are a knockoff of the Westalee sampler set. However, a quick look at the description tell me that these are not a quality product. They have the thickness listed at 1.4" high. This is a red flag that what you are buying probably doesn't match the quality you're looking for. You can also see that the Amazon templates have their lines printed on as opposed to the Westalee template, which has it's lines etched in.



Westalee template



Amazon templates

SIZE

There are two considerations when it comes to choosing a ruler based on its size.

- Does the ruler fit in your hand/will it fit well in your machine?
- Is the size of the design something that will fit the sizes of the blocks you use most often?

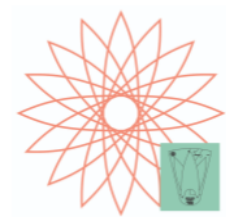
DOES THE RULER FIT WELL IN YOUR HAND/ WILL IT FIT WELL IN THE THROAT SPACE OF YOUR MACHINE?

- ❑ Some longarm templates are great for use in large areas. The thing to remember is that you can never quilt an area larger than your hand, which means you may have to reposition your hand over the course of stitching. Sometimes this can't be avoided to get the look you're going for. But it is worth the thought...Is the template so large that you will have trouble keeping it in place while you stitch and reposition?
 - ❑ It is usually easier to reposition your hand on a longarm than on a sewing machine.
- ❑ Will the ruler fit well in the throat space of your machine?
 - ❑ Is the ruler so large that you can't work on the right side of the foot because it is hitting the side of your machine? Is it hard to reposition?

IS THE SIZE OF THE DESIGN SOMETHING THAT WILL FIT INTO THE SIZE OF THE BLOCKS YOU USE MOST OFTEN?

Let's look at the two rulers to the right

- ❑ Westalee Spinning Wheels 2 finishes at 11 ½". If you commonly make 8" blocks, you might not get much use out of this ruler.
- ❑ The Creative Grids Elvira ruler has curves designed to fit into a 2 ½" square or strip. If you use a lot of jelly rolls, you will get a ton of use out of this ruler.



Spinning Wheels 2 at 11 ½"



Creative Grids Elvira

USEFULNESS

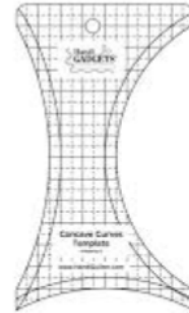
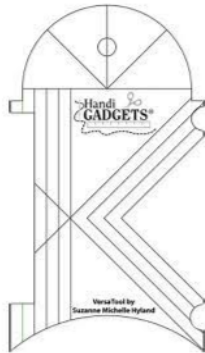
- ❑ Can I use the template in more ways than the designer intended?
- ❑ Does the template have more than one curve or angle?
- ❑ Can I use part of the template to create a different design?
 - ❑ Just because you paid for the whole thing, doesn't mean you need to use it.

- ❑ Westalee Heart Templates
 - ❑ These are designed to stitch half of a heart, flip the template and stitch the other half.
 - ❑ They don't seem very versatile until you get creative.
 - ❑ You don't have to stitch both halves. They can be used in a border, create an interesting continuous curve design in blocks, or maybe butterfly wings.
 - ❑ You are limited only by your creativity.
- ❑ Westalee Circles on Quilts Templates
 - ❑ These are designed to be used with a pin, and stitch a complete circle.
 - ❑ You don't have to use the pin, or stitch the full thing.
 - ❑ You now have a template with the ability to stitch the arcs of five different circles.

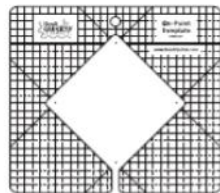
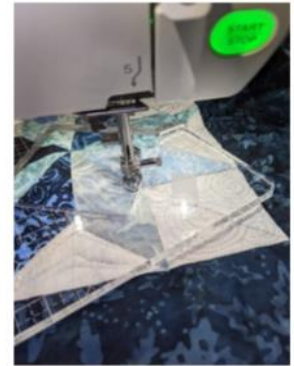


Handi Quilter Versa Tool and Concave Curves Templates

- These are useful templates because they come with multiple curves or angles.
 - The Versa Tool comes with two curves, a straight edge, and a right angle.
 - The Concave Curve Template has three different curves. All of which are well marked with a grid, making it easy to stitch them in different sizes by using the grid to line up with your seams or markings.



In the top photo, I am using the Handi Quilter On Point Template to stitch the points on my Lemoyne Star quilt. I could've used a straight edge to get the same effect, however this would've required a lot of marking. I chose to use just use part of the On Point Ruler, which is designed to stitch a full square. By aligning the edge of the template with the inner star points, I was able to get a consistent $\frac{1}{4}$ " echo inside the inner points of every star that extends to the exact same spot in the star points, without any measuring or marking. I wanted to stitch an echo, so I put a piece of tape on the ruler to mark which of the grid lines I needed to line up with the point of my previous stitching.



STABLE TAPE OR HANDI GRIP

Quilting without some type of grip on the back of your ruler is like driving through a blizzard without snow tires. You will be exerting forces on your ruler (you need some amount of pressure to make sure it stays against your foot), and without grip it is highly likely that your ruler will slip, your design will be off, and you will be spending quality time with your seam ripper.



- ❑ The location of your grip matters. Before you adhere it to your ruler, take a minute to hold it in your hand the same way you would when stitching. Take note of where your fingers are. This is where you should put your grip. You can even take your ruler and a quilt sandwich over to your machine, and take it for a “test drive”. Lower the foot, without lowering the needle or stitching, and move the ruler as if you were going to sew. Try different hand positions and work from all sides of the foot. You may need your tape in a different place when working from the left of the foot than you do when working from behind.
- ❑ Do your best not to cover up any important markings that you may need to line up your design.
- ❑ Stable Tape vs. Handi Grip
 - ❑ Stable Tape is like an adhesive shelf liner
 - ❑ Handi Grip is more like an adhesive sandpaper
 - ❑ Because it is so rough, it can scratch other templates if not stored correctly.
 - ❑ I’ve also found it can easily get stuck in your batting when working near the edge of your quilt.

SEW STEADY FREE MOTION OR GRID GLIDER, OR SUPREME SLIDER

We want our ruler to grip, but our fabric to slip. Think of an ice skate. The blade is nice and smooth so the skater can glide across the ice, but what happens when they need to stop. They use the rough textured tip of the blade to create friction with the ice to slow them down. Our goal is to create as little friction as possible between our quilt and the bed of our machine. A Grid Glider or Supreme Slider will also cover any gaps or seams between your machine and extension table.

SPACING GAUGE

Most ruler feet are $\frac{1}{2}$ " around. Your needle is $\frac{1}{4}$ " away from the edge of your foot. This means that I can't align the ruler where I want my stitches to go, I need to measure $\frac{1}{4}$ " away. This is the most common way a spacing gauge is used, although they do also come with $\frac{1}{8}$ ", $\frac{1}{2}$ " and 1" measurements. In this photo, I'm using it to make sure my spider web ends in the exact same place I started to create a continuous loop around.



FABRIC MARKING TOOL

At some point, you will have to mark your quilt top, be it with a crosshair squared, marking the center of a border or block, or reminding yourself which direction to stitch your design. The most popular marking tools are a Frixion Pen, water soluble marker, air-erase marker, chalk pencil, and chaco liner (with the original chalk dumped out, and refilled with iron-off pounce powder). Choose whichever one is your favorite and has some contrast with your fabric color, and mark away. Just be sure to always test your marking tool to make sure it will come out. Frixion pens can leave ghost lines, although using two layers of Best Press can supposedly prevent this from happening. Blue and pink chalk can stain. ALWAYS TEST!

QUALITY THREAD

Any thread you use for quilting can be considered “quilting thread” regardless of what it says on the label. Cotton, polyester, rayon, or metallic can all be used successfully.

Embroidery
Thread

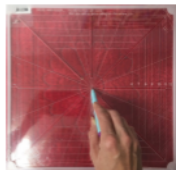


Metallic
Thread



- ❑ Regardless of the type of thread you choose, make sure it is quality thread, and not too old. There is a saying in computer programming “garbage in, garbage out”. The same holds through for your thread. If you use junk thread, you will get junk results.
- ❑ Although you can use virtually any kind of thread, the most beginner friendly is a 40 wt. polyester (not embroidery thread).
- ❑ Different weights of thread will produce different results. A thicker thread (lower number) will really feature the quilting. A thinner thread (higher number, such as 80 or 100 wt) will feature the piecing, and just give you an overall quilty texture.
- ❑ Make sure you are using the appropriate size and type of needle to match your thread and project (more on this later).

NICE TO HAVE, BUT NOT A NECESSITY



- ❑ Crosshair rulers are a great for dividing your blocks into equal sections. They are available in 5, 6, or 8 point, giving you the ability to easily mark 5, 10, 20, 6, 12, 24, 8, 16, or 32 lines.
- ❑ Machingers gloves have a silicone grip on the fingertips. This will allow you to better grip and control your fabric and ruler. (I find I don't need them when working on a project fat quarter sized or smaller, but are a lifesaver on a bigger quilt.
- ❑ Self-threading or side-threading needles will save you time and effort when tying off and burying thread tails into your quilt.

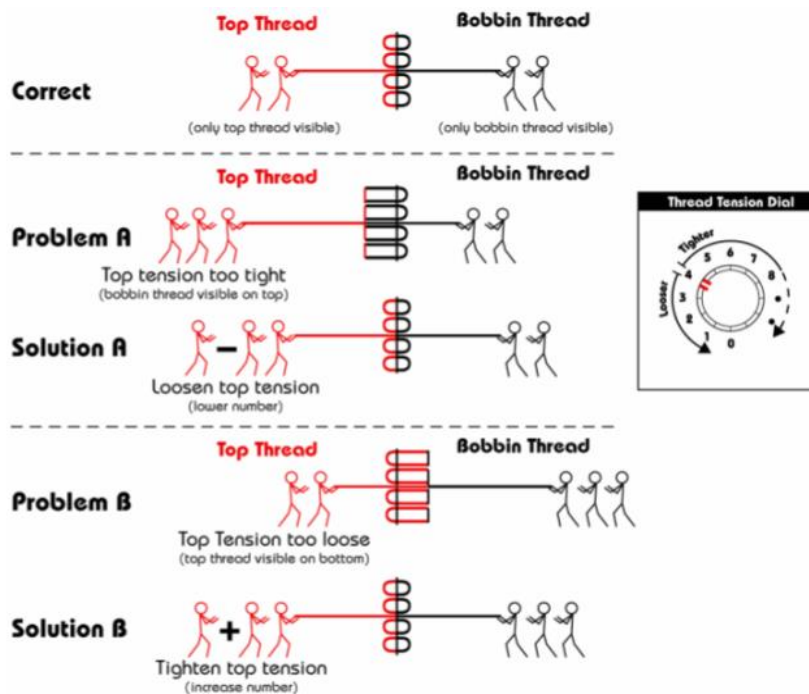
LET'S GET STARTED QUILTING!

I know it's tempting to pull out that unfinished quilt top that has been sitting in a pile for way too long, and get right to quilting it. But before we do that, we have to do two things...practice and warm up. You don't see an elite sprinter just walk up to the starting blocks and start running at full speed. They do some stretching, a slow jog around the track, make sure their shoes are tied the right way...not too tight, not too loose, and take a few practice runs to make sure their muscle memory is top notch and there is no surprises on the track waiting for them come race time. We are going to do the same thing each and every time we sit down to quilt.

THE WARM UP

- ❑ Make yourself some fat quarter sized quilt sandwiches.
 - ❑ We all have that fabric in our stash that makes you question your decision making skills, and your eyesight. This is a great place to use it.
 - ❑ I recommend making several at once. If you have a stack ready to go, there is no excuse not to practice.
- ❑ Use the rulers you intend to use on your project.
 - ❑ This is where you find out if you prefer to stitch a design horizontally or vertically, where you need to place your hands, or if you need to add more grip.
 - ❑ You may find that there are certain places on certain rulers where your foot tends to drift off. Better to fix that now than have to get out your seam ripper.
 - ❑ Build your muscle memory for your design. If you get a new ruler or pull out one you haven't used it a while, it might feel awkward. However, after a few minutes of practice, your brain has an aha moment of "Ok, I remember now. We've done this before".

- ❑ Are your shoes too tight or too loose?
 - ❑ This is where we can check our tension. Unless you are using the same fabric and batting as your quilt, it won't be perfect, but we can get close. There is nothing worse than happily quilting along, only to flip your project over and find loops all over the back. Although easy to rip out...I prefer to spend as little time with my seam ripper as possible.
 - ❑ This is also where we can check and make sure our thread isn't shredding, and we have the appropriate size needle.
 - ❑ When checking your tension, it is important that you move in all directions. Sometimes things look great stitching a straight line, but eyelashes will show on the back when going around curves or sharp points.
 - ❑ You can have perfect tension, but the wrong speed. Sometimes it takes speeding up or slowing down to get the desired result.



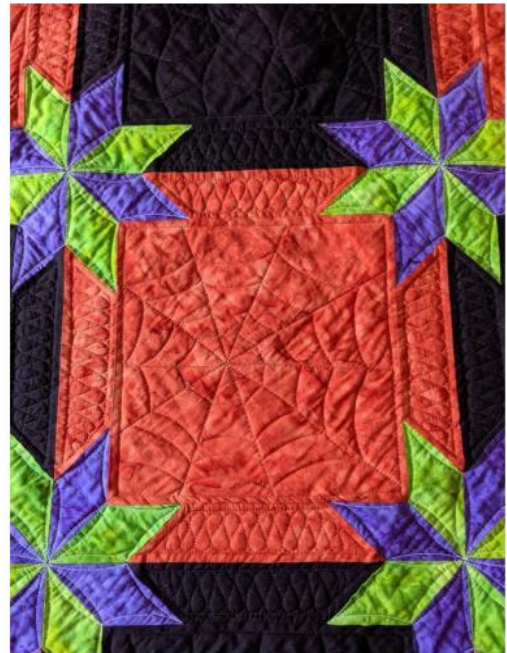
MAKE A PRACTICE BLOCK

This is something I have been doing lately. Of course, not necessary, but I find it to be helpful in my piecing, designing my quilting pattern, and the quilting itself. I like to make one or several quilt blocks.

- ❑ I check my seam allowance, make sure everything is going to line up as it should with no lost points.
- ❑ Are the colors going to work? Sometimes things look great on the bolt, but once their cut up, your colors are too similar, the scale of your pattern is too large and gets lost in, or you just discover this look different in the light of your sewing room than they did in the store.
- ❑ Am I happy with my thread and batting choice?
- ❑ Will my quilting design work? Can I get from point A to point B without too much traveling or backstitching? Do I need a little more practice with a certain design?
- ❑ Once completed, they make great wall hangings, pillows, table runners, and gifts for people you love...but maybe not quite enough to give them a full quilt.



On my practice block I tested out two different rulers for the star points. Turns out I didn't use either one. You can also see that in the practice block the spider webs and curvy crosshatch extend out of the triangle and into between the star points. I decided that while it looked nice, it was too much traveling, so I replaced it with ribbon candy in the full quilt.





When I stitched my practice piece for my Lemoyne Star quilt, I quickly discovered that I should've chosen a different pressing strategy for my stars. The center and outer star points were too thick to quilt the design I had planned, so I had to adapt the design to avoid these seams.

LET'S START STITCHING!

- ❑ Lower your feed dogs, or use your rulerwork or free motion setting if your machine has one.
- ❑ Adjust your foot height.
 - ❑ You want your foot as high as possible (without getting skipped stitches).
- ❑ Bring up your bobbin thread
 - ❑ You need to bring your bobbin thread to the top to prevent a big knot from forming on the back of your project.
 - ❑ Hold your top thread, drop your needle where you want to start stitching, raise it back up and your bobbin thread should come with it. Keep holding the top thread and pull your fabric away from the foot. Grab both the top thread tail and closer to the needle, and pull. The loop that comes up from where you dropped your needle is your bobbin thread. Pull on the side of the loop that moves easily until you get to the tail of your bobbin thread. Drop your needle back into the same position, and move your threads where they won't be in your way.

- ❑ Optional: take some tacking stitches
 - ❑ Decide if you will be burying your thread tails or taking a few tacking stitches and cutting your threads.
 - ❑ Neither way is right or wrong, however, if you're making a quilt to enter into a show, I recommend taking the extra time to bury your threads.
 - ❑ Take a few stitches, not right on top of each other, but back and forth right next to each other. This will create a knot so your stitches don't come undone.
 - ❑ Note: If you will be stitching back over this portion of your design multiple times, such as the center of a star, you can omit this step and trip your threads whenever it's convenient.
 - ❑ Lower your foot and needle and align your ruler.
 - ❑ Start stitching
 - ❑ This is the fun part. Don't let nerves, stress, or the pursuit of perfection get in your way!
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- ❑ Bring up your bobbin thread...again.
 - ❑ Once you have finished your design, you can take those optional tacking stitches, and then it's time to repeat the process of bringing your bobbin thread to the top.
 - ❑ Raise your needle and foot, and pull the fabric towards yourself.
 - ❑ This is going to create some slack in the bobbin, making it easier to bring to the top.
 - ❑ Drop your needle in the same place you took your last stitch, and bring your needle back up again.
 - ❑ When you pull your fabric away, you will see the loop of bobbin thread come with it.
 - ❑ This time we don't have a tail, because it is still attached to the quilt. Grab the loop, and pull on whichever side seems to move more easily.
 - ❑ You should now have a loop of bobbin thread and your top thread. Cut them both. When you move your fabric, the remaining bobbin thread will go back down under you quilt, ready to be brought up next time you start quilting.
 - ❑ Either cut or bury your thread tails.
 - ❑ If I am choosing to bury my tails, I like to do it as I go. I've found that if I put it off until the end, they tend to get in my way, and I have to stop quilting to move them so I don't stitch over them.
 - ❑ Congratulations! You've just quilted your design. Take a minute to pat yourself on the back, and take a breath...you might have been holding it the whole time.

TROUBLESHOOTING

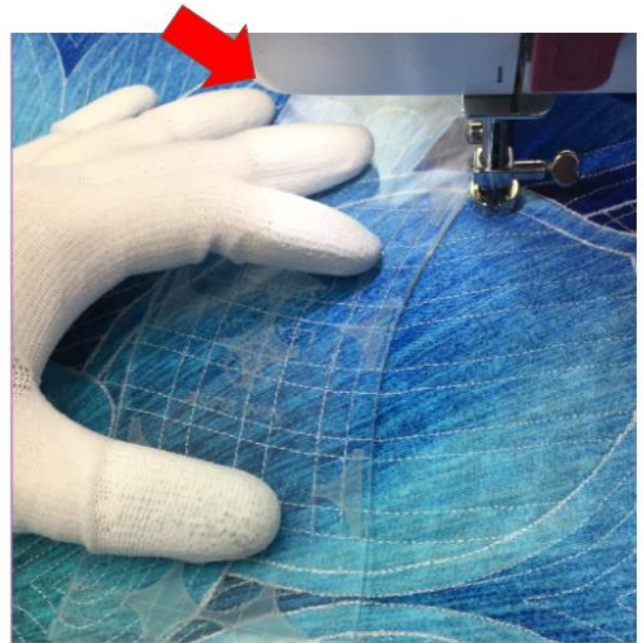
- ❑ Skipped stitches
 - ❑ Your foot is too high
 - ❑ Not enough tension on your top thread
 - ❑ You need a new or different size needle
 - ❑ Your hands are moving too fast for the speed of your machine
 - ❑ Your machine needs to be cleaned
- ❑ Loops or eyelashes on the back
 - ❑ Not enough tension on your top thread
 - ❑ Your hands are moving too fast for the speed of your machine
- ❑ Shredding Thread
 - ❑ Your needle is bent, has a burr, is the wrong size
 - ❑ Not enough tension on your top thread

- ❑ Your fabric doesn't move freely or smoothly
 - ❑ You forgot to put your free motion glide or supreme slider on
 - ❑ Your foot is too low. Try to raise it up until you see skipped stitches
 - ❑ You are so worried about the ruler moving that you are using an excess amount of downward pressure
- ❑ Inconsistent stitch length
 - ❑ Unless you're working on a long arm or high end Bernina, you probably don't have a stitch regulator.
 - ❑ The only way to achieve consistent stitch length is with practice. This will come over time, but will never be perfect. Just keep going and as long as your stitches aren't on the extreme end of too big or too small, it will work itself out.
 - ❑ If your stitches are way too big, turn up the speed of your machine. Too small? The machine is going too fast for your hands.
 - ❑ Try to match the speed of the machine to the speed of your hands, not the other way around. Use your speed control and set it to where you can floor the pedal and get a decent result.
- ❑ Big stitches when you start and stop
 - ❑ Your sewing machine isn't a Ferrari. It doesn't go from 0 to 60 in under a second. And it doesn't stop on a dime. Make sure it is actually stitching before you start to move your fabric, and make sure the needle has completely stopped moving before you take your hands off your quilt.

A FEW HELPFUL TIPS

- ❑ Learning to free motion quilt is a lot like learning to drive a car. It is a matter of coordination between your brain, hands, and foot. I'm guessing you weren't very good the first few times behind the wheel. It was hard to control your speed, you probably took turns a bit too fast, it was hard to gauge your distance from other objects and stay between the lines, you had to slam on the brakes sometimes, maybe you even hit something. But learning to drive was important to you, so you kept practicing. Now you drive down the road without a second thought. If you put half the amount of effort into your quilting as you did learning to drive, or ride a bike, you will be a free motion master in no time.

- ❑ Put on your seatbelt
 - ❑ Most of the time, while you're driving down the road, your seatbelt doesn't do much. But if it senses that you're moving in a way you shouldn't be, it clamps down, and keeps you in your seat where you should be.
 - ❑ When quilting with rulers, most of your hand should be on the ruler, but you need a finger, usually your ring finger, or your pinky or thumbs depending on the template, to act as a seatbelt for your ruler. It will sit on the fabric, but against the edge of the ruler. Most of the time, it won't do much of anything. But if it feels like your ruler is starting to slip, it clamps down to stop it.



- ❑ You can't quilt outside of your hands
 - ❑ Whether you are free motion or ruler quilting, you must remain in control of the fabric
 - ❑ If your hands are either too far in front of, to the side of, or more commonly behind the needle, things are going to go downhill and fast.
 - ❑ Don't be afraid to stop and reposition
 - ❑ The best place to do this is at a point, not in the middle of a big sweeping curve
- ❑ No one else will ever be looking as closely at your quilting as you are
 - ❑ It's easy to be hypercritical of your work when your face is six inches from it. Everyone else will see it from a distance. They won't even notice what you consider to be a glaring flaw.
 - ❑ Just keep going! The more quilting you add the more your "mistakes" will blend in
 - ❑ If the quilt police show up...kindly tell them where they can shove their unsolicited opinions
- ❑ PRACTICE, PRACTICE, AND MORE PRACTICE!
 - ❑