

# How to Sew at SILab

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## Glossary

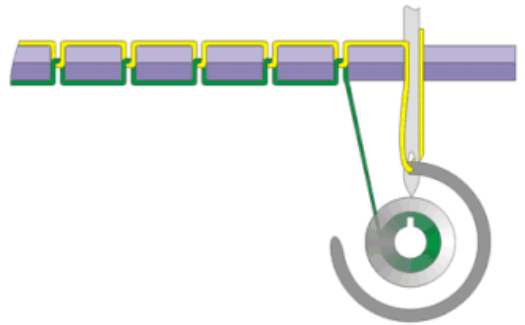
### Thread:

No matter how or what you are sewing, you will likely need thread. There are 2 main shapes of thread, the best fit varying on where in the sewing machine they are being used.

There are **spools**: taller, able to hold more thread, and **bobbins**: shorter, usually with a clear body.

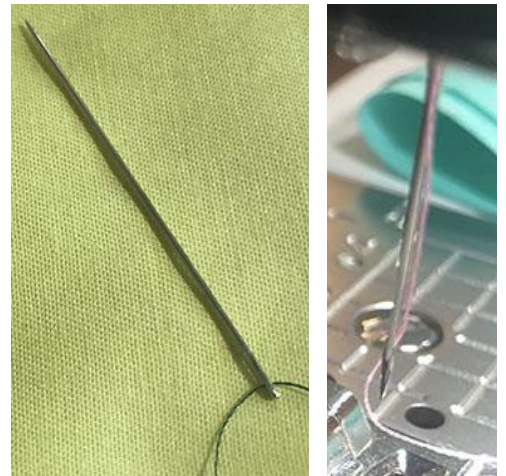


When using a sewing machine, the spool gets loaded into the top of the machine and through the needle so that it can be seen on the top of the fabric (**yellow in graphic**). The bobbin gets loaded into the underside of the machine (**green in graphic**) and helps catch the top thread, locking the fabric between the two threads.



### Needle:

The needle is the tool that brings the thread through the fabric. The main parts of the needle are the eye, or the hole the thread goes through, and the point, the part that pierces the fabric. On hand sewing needles (**left image**), the point and the eye are at opposite ends of the needle. Needles for the sewing machine (**right image**) have the eye and point at the same end.



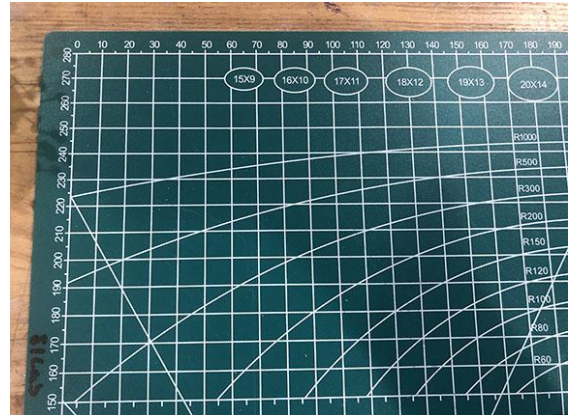
### Fabric Scissors:

The fabric scissors in SIlab are the black and purple, and the teal scissors. They are just like regular scissors but sharper so they can cleanly cut through fabrics on the first try. Using them to cut things like paper or cardboard dulls them rapidly.



### Rotary Cutter and Cutting Mat:

In the same drawer as the fabric scissors are the rotary cutter (**left image**) and the cutting mat (**right image**). Any time you are using the rotary cutter, you should be using the cutting mat. The rotary cutter is a handheld wheel blade which is useful for making large cuts or for cutting through multiple layers of fabric at the same time. This is because you are pushing the blade into the fabric and cutting mat, rather than having to pick it up like you would have to when using scissors.



### Fabric Marking Tools:

Fabric marking tools are anything that you can use to make markings on fabric. It can be helpful to draw out where you plan to cut or sew something before you do it to cut down on wasted materials.

**Fabric Chalk:** The chalk triangles in different colors are perfect for marking fabric: they are flat so the line is sharp, different colors so the marks show up on a variety of fabrics, and washable so no marks will be left on the final project.



**Sharpie or other markers:** Markers work well on mesh and other synthetic fabrics, but the ink can spread in cottons leading to an unclear line. They also will not wash out of the final project and can sometimes bleed through the fabric to show on the other side.



**Pencils:** Pencils work well for flat, light colored fabric but can be harder to see on darker colored fabrics. Sometimes the pencil washes out, but other times it will leave a semi-permanent stain on the fabric, though it generally doesn't bleed through to the other side of the fabric.

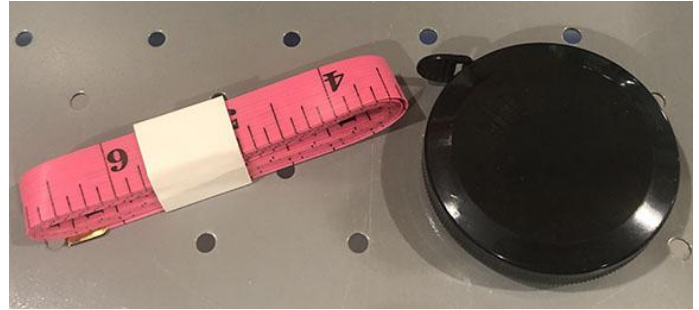




### Flexible Tape Measure:

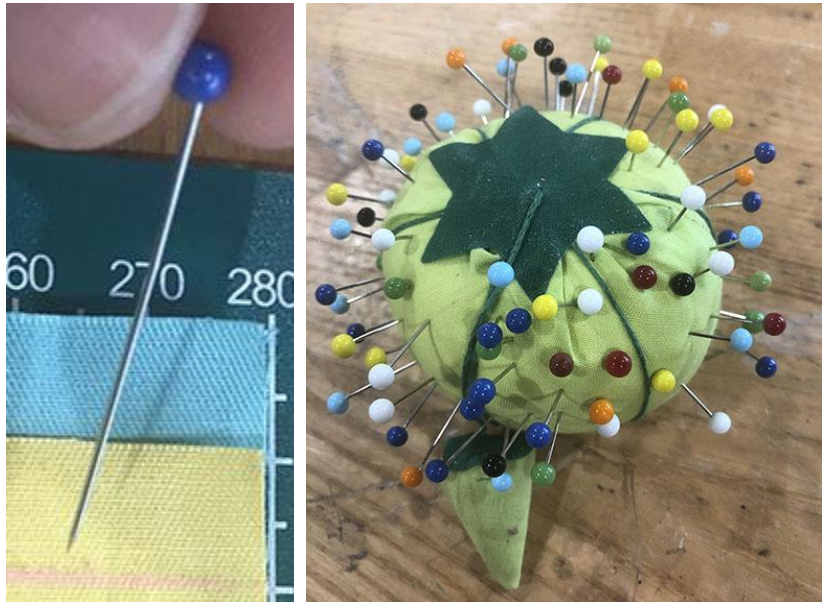
We have 2 styles of flexible tape measure, one that is retractable (**black circle**) and one that isn't (**pink**).

These are great for measuring body parts or other curved objects.



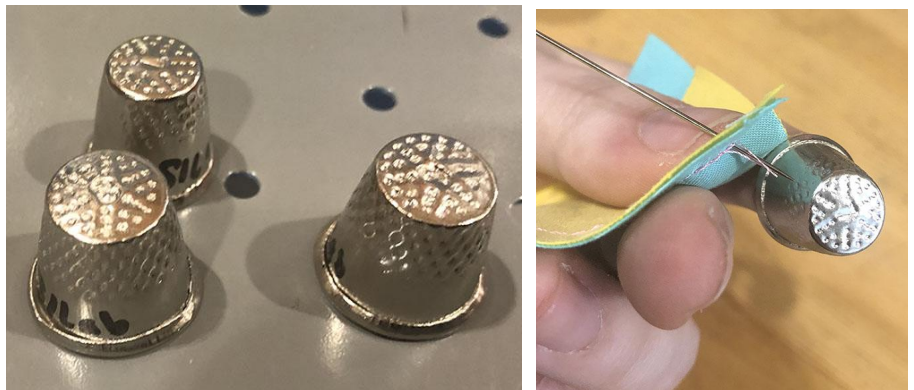
### Pins and Pin Cushion:

Pins are great for holding fabric in place before you either hand or machine sew it. The glass ball on the end makes it easy to pull them out of the fabric quickly. The pins get stored in the pin cushion (green tomato) so it is easy to grab one without them getting tangled. The small pepper shaped object attached to the pin cushion also acts as a sharpener, so if the pins or sewing needles are having a hard time piercing the fabric, stab the pepper a few times to sharpen them.



### Thimbles:

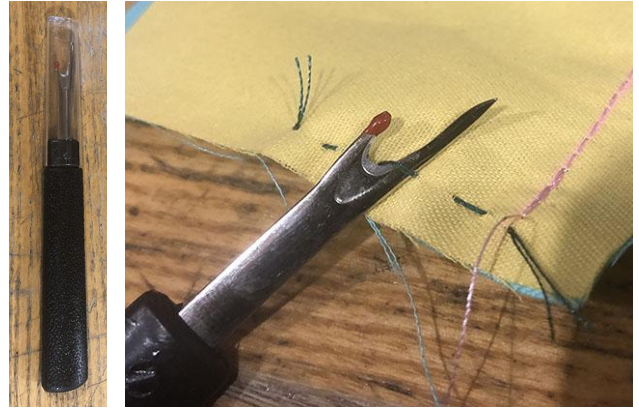
Thimbles are small metal (or sometimes plastic) fingertip covers used occasionally when sewing. They can be used either on the finger at the underside of the fabric to keep from getting stabbed by the needle when it pierces through, or can be used on the finger at the topside of the fabric to help push the needle through. At SILab, we have 3 different thimble sizes, so find the one that best fits the finger you're hoping to protect.





**Seam Ripper:**

Sometimes when you are sewing, you will make mistakes and sew where you didn't mean to. You can use a seam ripper to pull out stitches easily. The sharp tip at the end (not the tip covered in red) slides under stitches and then cuts the thread, making it easier to pull the thread out of the fabric to undo the stitch.

**Fabric Glue:**

If you are doing decorative work or trying to seal the edges of fabric so it doesn't fray, fabric glue is perfect. It is specifically designed to stick fabric/thread to other fabric/thread. If you have used fabric glue, you need to let it dry completely before sewing on top of it, otherwise the glue can gum up the needles and thread, damaging them and making it harder to sew.

**Embroidery Hoops:**

We have a variety of sizes of hand embroidery hoops. These are great for either hand embroidery, finishing off machine embroidery, or for holding fabric in place as you add things to it. You loosen the bolt on the outer ring, then sandwich your fabric between the two rings, and tighten the bolt again to hold your fabric together and in place.



### **Sewing Cabinet:**

All of the things you need to be able to sew something can be found in the blue cabinet to the left of the sewing table.

The top drawer has the sewing machine manuals and accessory parts.

The second drawer has fabric marking and cutting tools as well as the pin cushion.

(The third drawer does not have any sewing supplies)

The fourth drawer has thread, buttons, snaps, hand needles, and thimbles.

The fifth drawer has fabric glue and embroidery hoops.

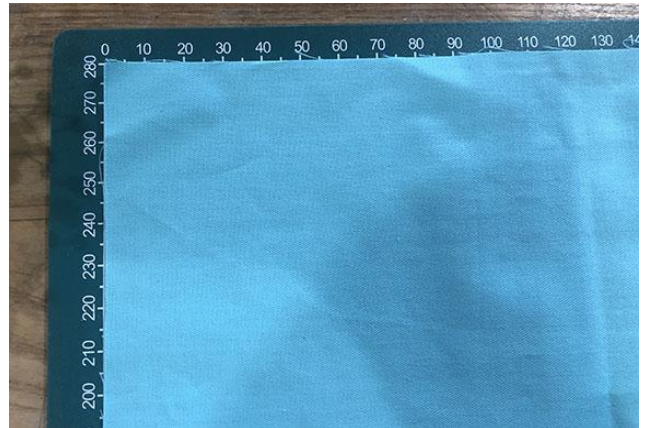
The sixth (bottom) drawer has some fabric and stuffing material.



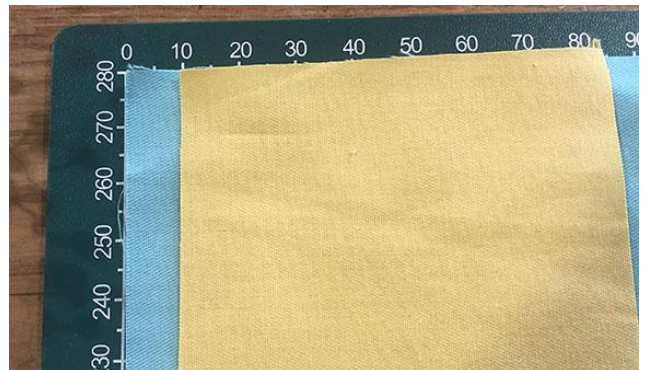
## Preparing Fabric: Measuring and Marking, Cutting, Pinning

### Measuring and Marking Fabric:

Pick a corner of the fabric to start from and line that corner up with the 0 mark on the fabric cutting mat. Make sure that either the top or left edge of the fabric is lined up with the line on the cutting mat all along the side so that any marks drawn are square.



If laying out multiple pieces of fabric to be sewn together, carefully place the top layer(s) on top of the first piece. In this example, the top piece is 10mm to the right of the edge of the bottom piece so that it is easier to see both pieces at once.



Once the fabric is laid out, you can use the visible cutting mat grid to help line up the ruler to get straight lines. In this example, the ruler edge is lined up with the 20 mark at both the top and the bottom of the cutting mat.

If the bottom edge of the cutting mat isn't visible, you can use one of the speed squares to help keep things straight by hooking it along the top edge of the cutting mat.





Once the fabric and the ruler are in place, use one hand to hold the ruler steady while you mark the fabric with the other hand.

In this case, because the fabric is already cut to size, I will be using a solid straight line (as opposed to a dashed line) to mark where I want the stitch to be.



### Cutting:

When you are cutting fabric, you can use fabric scissors or the rotary cutter tool.

To use the rotary cutter, you first have to push in the top pin to unlock the blade; if the blade is unlocked the pin will be pushed in so the handle is smooth along the blade side.



Once the blade is unlocked, just squeeze the handle to get the blade to stick out.



With the blade sticking out, you can now use it to cut the fabric. It can be easier to get clean cuts and maintain control by pushing the blade away from yourself. This will also keep your hands safe if the blade slips.

Only use the rotary cutter with a cutting mat underneath.

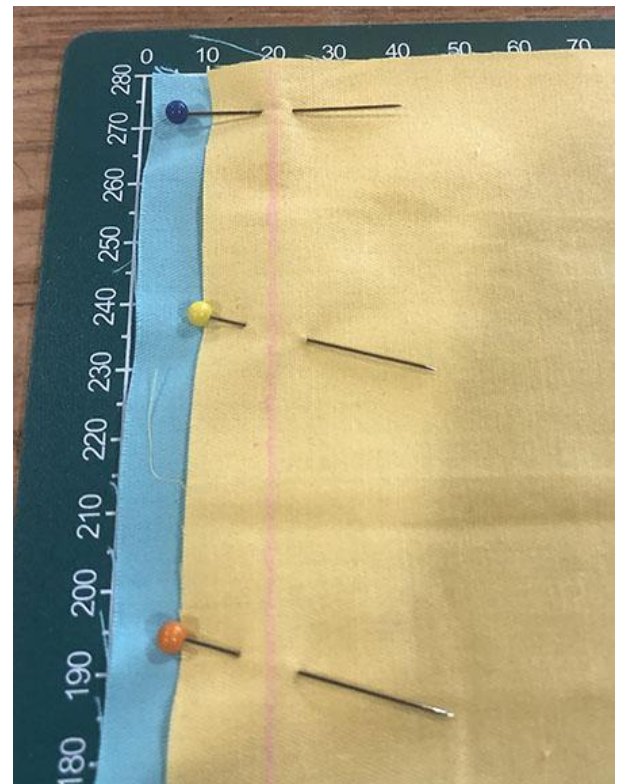
Once you're done cutting, don't forget to push the top pin back in to lock the blade.



### **Pinning:**

Once the line is drawn, you can pin your fabrics together to keep them from shifting while you sew. I recommend placing the pins at the start and end points of the stitch first to help prevent the fabrics from moving around too much while you place the other pins.

Stick the pins in so that they are perpendicular to the stitch line with the glass head of the pin facing your dominant hand. This will let you quickly pull the pins out as you sew, which is important as you don't want the sewing machine needle to make contact with the pins, as this could damage the sewing machine needle.





## Sewing Machine:

### Before Turning on the Machine:

Before you turn on the machine, decide if you want to use the foot controller or the start/stop button on the front of the machine for the bulk of your sewing. This is because you will need to either plug or unplug the foot controller from the machine before you turn it on.

If you are just doing straight lines, using the embroidery attachment, or doing decorative stitches (like lettering), then I recommend using the **start/stop button**. In this example, I used the start/stop button for all the sewing.

If you are familiar with other sewing machines, know how to drive, or are planning on sewing something that will have you stopping and starting a lot, then I recommend using the **foot controller**.



Once you know how you will be controlling the machine and have it set up, turn on the machine using the power switch on the right hand side of the machine near the back, circled in blue in the image.





As the machine turns on, the light will turn on and the touch screen will display a welcome screen.



Once you tap the touch screen to fully wake the sewing machine up, the needle will shift left/right until it is in position to sew the first stitch in its menu.

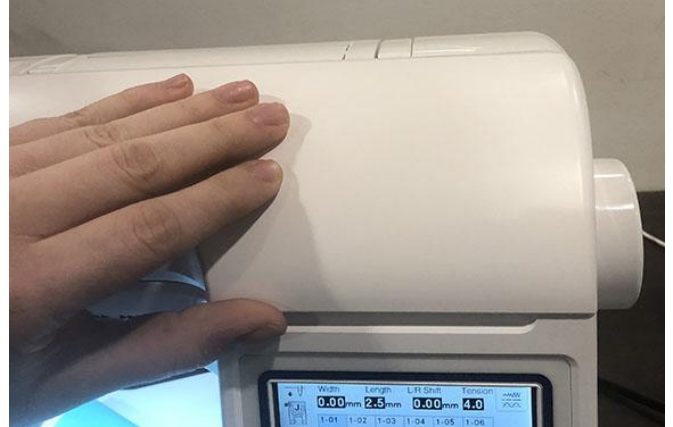


Once the machine is on, if there is not already fully loaded thread (that matches your needs) in the machine, you will need to put in a spool and bobbin yourself before you can begin sewing.

## Putting in a Spool:

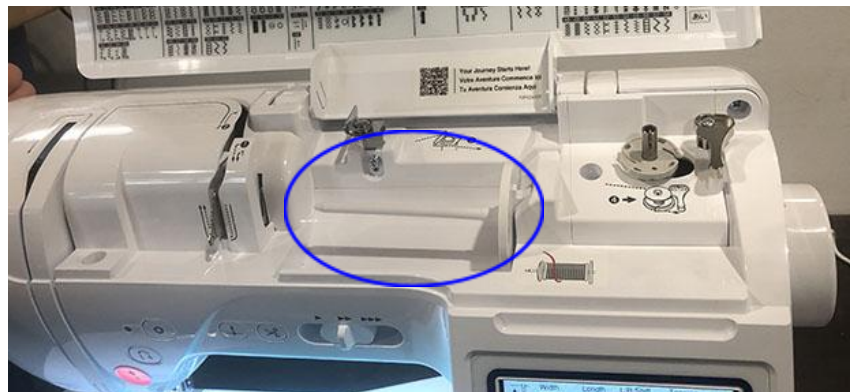
To put in a spool, first you will need to open the top cover of the machine by lifting up on the lip just above the touch screen.

This makes all of the spool thread loading areas accessible.

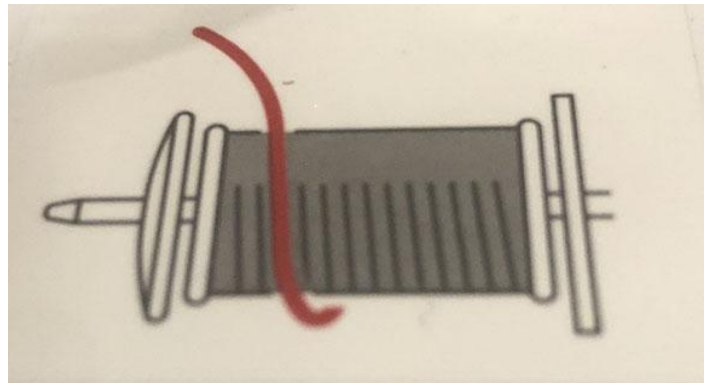


The main part we care about right now is the long plastic pin with a disc on one end that is mounted on a hinge (circled in blue on the image).

This is where the spool will go.



Just to the right of the pin, there is this image, which shows the direction the thread is supposed to unwind. For the machine to work properly, the thread needs to come from the bottom of the spool and out to the left.



This means that there are 2 ways of loading the spool, and the one you use will depend on how the spool unwinds.

You can check which way your spool unwinds by putting it on the spool pin and pulling on the end of the thread.

Some spools (**yellow example**) unwind from the bottom (wider) end of the spool to the top (narrower) end.

Other spools (**pink example**) unwind from the top to the bottom and so will need to be flipped over to have the thread traveling in the correct direction.



If your spool unloads like the **yellow example**:

Push the spool as far down on the pin as possible.



Then take one of the gray or blue thread spool inserts (in the same drawer as the thread) and push it onto the spool pin.





Put it on so that the 3 pronged end is facing the spool and push it all the way down until only the lip of it is showing at the top of the spool.

This helps keep the spool spinning evenly and is only needed if the diameter of the spool hole is too wide for it to spin evenly on the pin on its own.



Once the spool and spool insert are on the pin, the last step in loading the spool is to put a spool cap on the end of the pin. This helps hold everything in place and helps make sure the thread unspools at an even pace and without getting tangled. The spool cap needs to be at least as large as the end of the spool, in this case the smallest of the spool caps is large enough.



The spool cap should go on so that the concave part is facing the spool. It should be pushed as far down as possible so that there isn't room for the thread to get between it and the spool insert when it is unwinding.



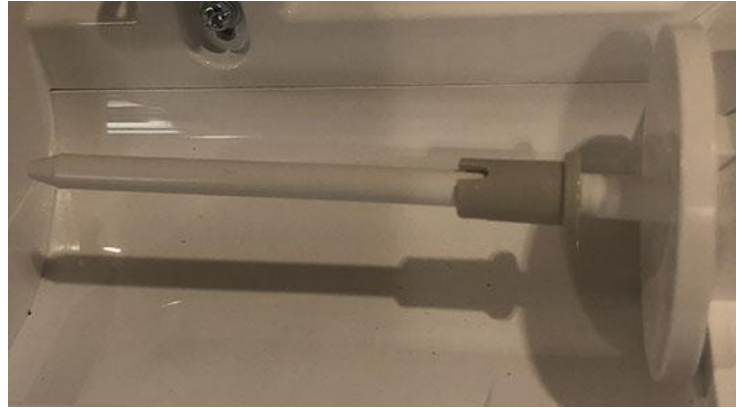
If your spool unloads like the **pink example spool**:

Then take one of the grey or blue thread spool inserts (in the same drawer as the thread) and push it onto the spool pin.



Put it on so that the 3 pronged end is facing the open end of the spool pin and push it as far down the pin as it will go.

This helps keep the spool spinning evenly and is only needed if the diameter of the spool hole is too wide for it to spin evenly on the pin on its own.



Once the spool insert is on the pin as far down as it will go, put the spool on the pin, again pushing it down as far as it will go, until only the top lip of the spool insert is showing.



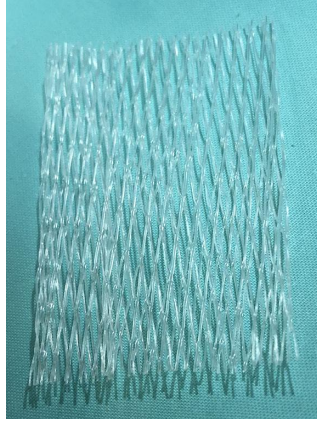
Once the spool insert and spool are on the pin, the last step in loading the spool is to put a spool cap on the end of the pin. This helps hold everything in place and helps make sure the thread unspools at an even pace and without getting tangled. The spool cap needs to be at least as large as the end of the spool, in this case the largest spool cap is the best fit.



The spool cap should go on so that the concave part is facing the spool. It should be pushed as far down as possible so that there isn't room for the thread to get between it and the spool insert when it is unwinding.



If you plan to do a lot of sewing or if the spool is a little wobbly on the pin, you can use one of the spool nets to help the thread unwind smoothly. Slip the net over the spool pin and slide it down until it is covering the spool. Then pull the loose spool thread out the left side of the net and give it a pull to make sure it didn't get tangled in the net.

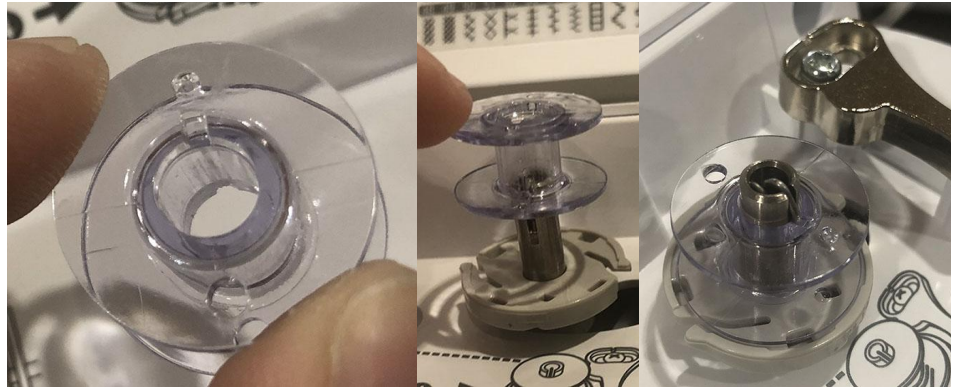




## Loading a Bobbin:

If there is not already a bobbin loaded with the thread color you need, you will need to make one yourself.

Take one of the empty bobbins from the thread drawer and push it onto the short metal and plastic peg at the back right corner of the top of the sewing machine.



There is a slot on the inside of the bobbin that when lined up with the metal loop at the top of the peg will lock the bobbin in place during the loading process.

After you hear the bobbin click into place, push the whole unit to the right, towards the metal arm sticking out.

This will change the color of the start/stop button from red to yellow, indicating that the machine is now in bobbin winding mode.



Next, you follow the numbered arrows with the dotted lines guiding the thread from the spool to the bobbin.

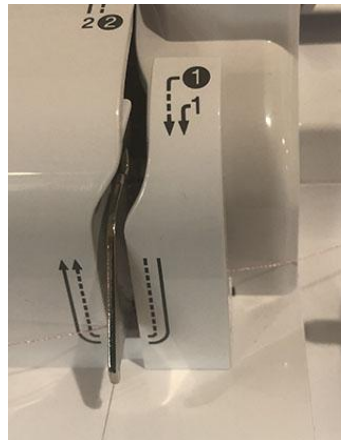
First, you take the thread from the spool on the pin and bring it behind the plastic ledge to the immediate left.



Then bring the thread down so it sits between the plastic and the metal guide.



Hook the thread under the metal guide and bring the thread up so it is sandwiched between the metal and plastic on this side as well.



For step 2, bring the thread back over to the right. You should be able to pull on it without too much resistance.



Step 3 will be loading the thread around the tension setting disc for bobbin winding. This is one of the most important steps in bobbin winding as it makes sure that the thread is tightly and evenly wound on the bobbin.

To start, hook the thread under the arm at the back of the metal plate.

Then bring the thread up so it is between the metal wall at the left of the plate and the disc in the middle.



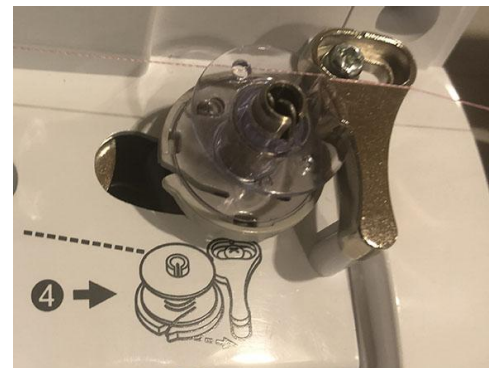
To finish this step, pull the thread to the right again, making sure that it slides under the disc but is still on the plate.



For step 4, pull the thread to the right until you have about 3 in or 9 cm of thread that goes beyond the edge of the body of the sewing machine.

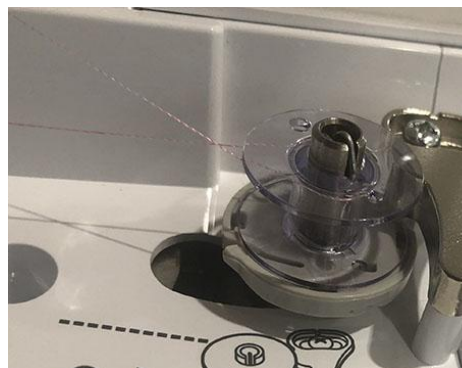


Take this thread and slide it under the clear plastic of the bobbin shell.



Then wind it clockwise and tightly around the middle of the bobbin 4-6 times.

You'll want to make sure you still have about 1 in or 2.5 cm of thread left after winding so that you can complete the next step.

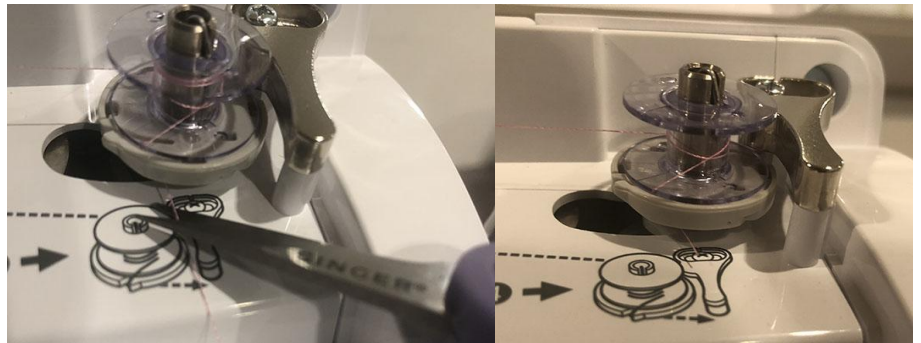




After winding it several times, take whatever thread is left and guide it through the slot in the gray plastic under the bobbin base. Pull the thread to the right until it is tight and seems unlikely to shift.



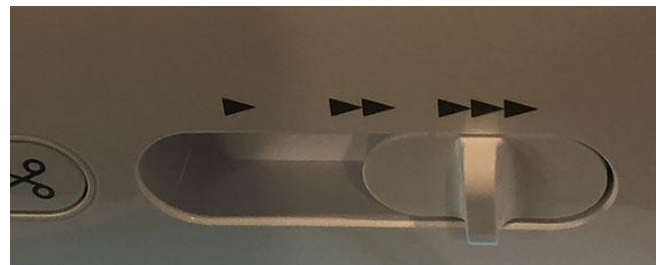
Then cut the excess thread close to the underside of the base to prevent it from tangling under the bobbin area.



Now with the thread in place, it is time to actually wind the bobbin.

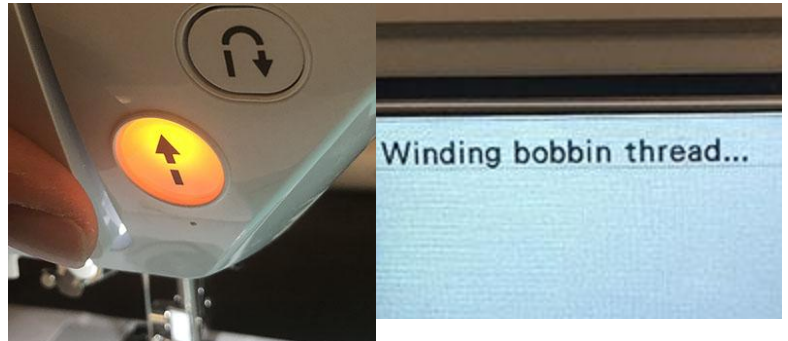


Turn the machine to high speed with the slider on the front.



Press and release the start/stop button on the front of the machine.

The screen will then display a “winding bobbin” message and the bobbin and pin will start spinning. This is pulling the thread from the spool onto the bobbin.



If you are not planning on doing a lot of sewing with a particular bobbin color, do not wind the bobbin until it is completely full. Once the bobbin has built up about 1/16th in or 2 mm of thread out from the center post, press the start/stop button again.



If you are planning on sewing a full garment or doing a lot of embroidery, you may want to fill the bobbin completely. In this case, let the machine run until it starts to slow down or until the thread starts to hit the metal arm to the right of the bobbin. Once either of these happen, press the start/stop button again to stop the machine.



Once it has stopped spinning, cut the thread connecting the bobbin to the spool. I recommend cutting so there is a 2 in or 5 cm tail of thread coming off the bobbin.



Then pull the bobbin mechanism back to the left and pull the bobbin up and off of the pin.



Slide the speed slider back down to a speed you would be comfortable sewing at.



If you are using the same spool color for your sewing, you don't need to remove the spool from the pin, but you will need to pull the thread back to the spool and out of the bobbin winding guides. This is because you will need to guide the spool thread through the numbered arrows with the solid lines to thread the sewing needle.



## Threading the Needle:

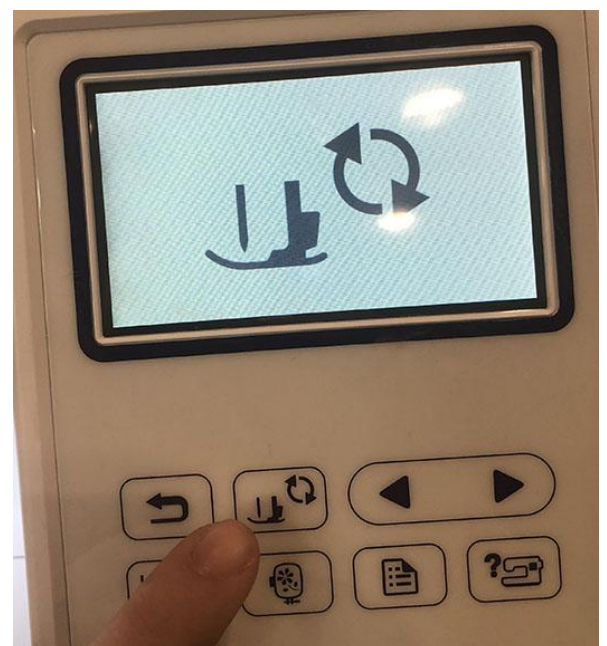
Once you have the spool fully on the spool pin, you are ready to thread the needle.



First, you will need to bring the needle to its highest point so that it will be in the right place for the needle threader. To do this you can either turn the dial on the right side of the machine towards you until the slight bump in the dial is at the top, or you can press the needle position button on the front of the machine once or twice until the needle is in the upright position. Both are circled in blue in the image.

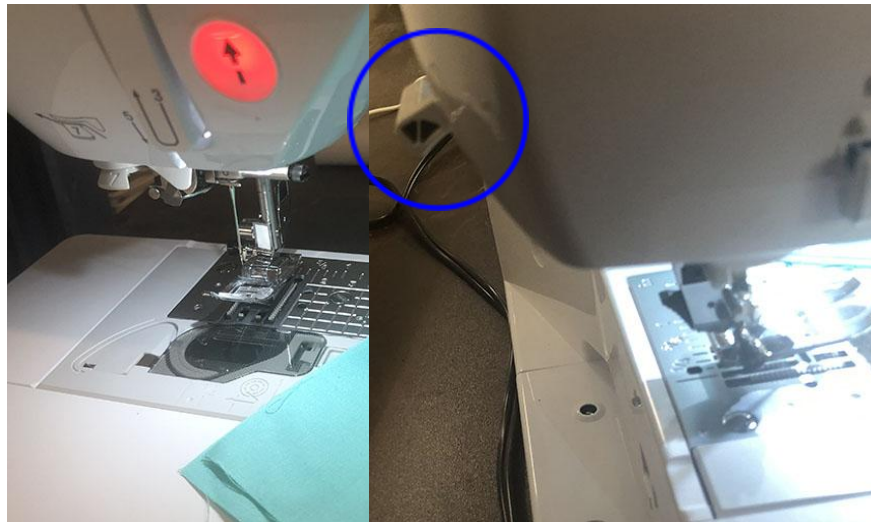


Once you have the needle in place, press the safety button on the front of the machine to make sure you don't accidentally start the machine while your fingers are in the needle area.



At the start of the threading process you will need to make sure the foot is lifted up.

You can do this by lifting the lever at the back of the machine, circled in blue.



With all of that complete, you can return to the spool pin area of the machine where you will follow the solid numbered lines with the thread down to the needle.

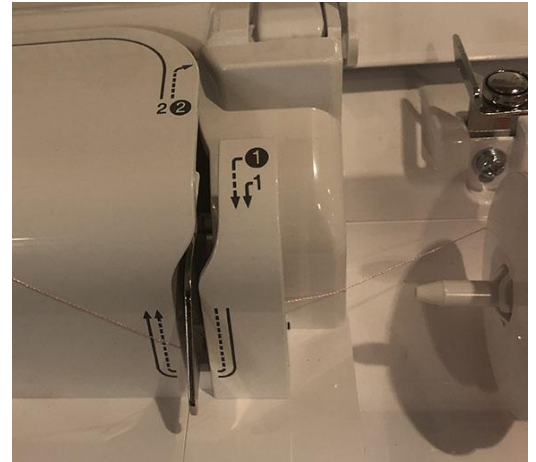
Starting with step 1, you take the thread from the spool on the pin and bring it behind the plastic ledge to the immediate left.



Then bring the thread down so it sits between the plastic and the metal guide.



Hook the thread under the metal guide and bring the thread up so it is sandwiched between the metal and plastic on this side as well.



For step 2, bring the thread to the left, going through the curved slot in the machine.

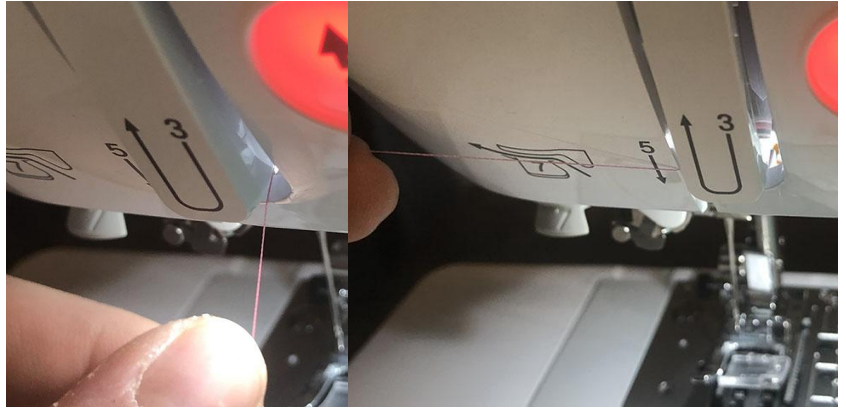


Then bring it down towards the table, following the slot in the front of the machine.





In step 3, pull the thread back up and to the left, hooking it around the curved plastic at the base between the two vertical slots in the machine. Pull the thread all the way up.

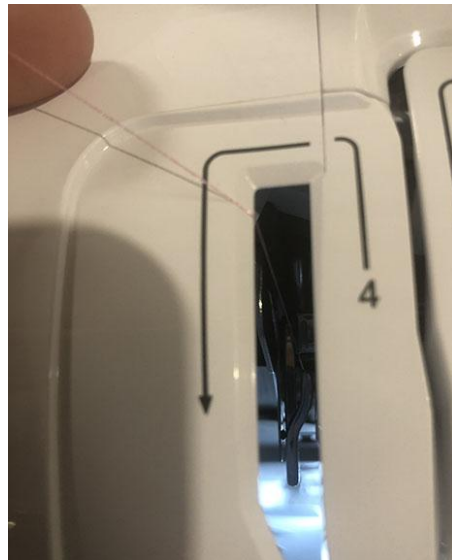
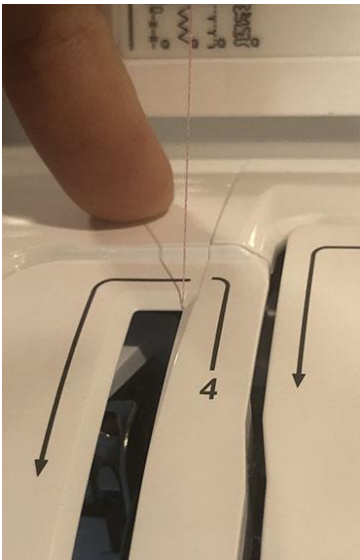


For step 4, pull the thread along the outside edge of the slot: up, to the left, and down.

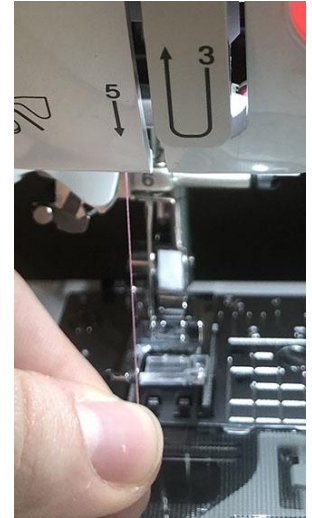
You need to keep the thread tight and along the outside edge so that when you pull the thread down it will go into the eye of the hook inside the machine.

You can see this hook in the third image or if you lean in close to the machine.

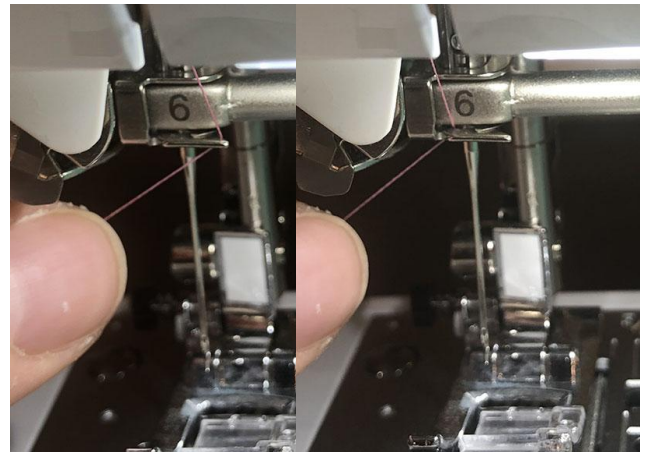
Once you have the thread through the hook, pull it down towards the base of the sewing machine.



For step 5, pull more thread out to both confirm that it didn't get snagged anywhere and so that you have enough extra for the needle threading action.



In step 6, push the thread behind the arm below the #6 on the machine. Then pull towards the left to pull the thread into the eye of the arm/post. This will help guide the thread into the eye of the needle as the machine is running.



Step 7 is only if you are using the automatic needle threader, which in most cases is what you will want to do. Start by pulling the thread towards you and to the left. Guide it into the notch on the metal disc near the top of the needle.

From there, pull the thread to the left and into the slot above the #7 so it is sandwiched between the grey plastic.



Then pull the thread further to the left and up on the side of the machine is a protected blade that you can use to cut any excess thread.

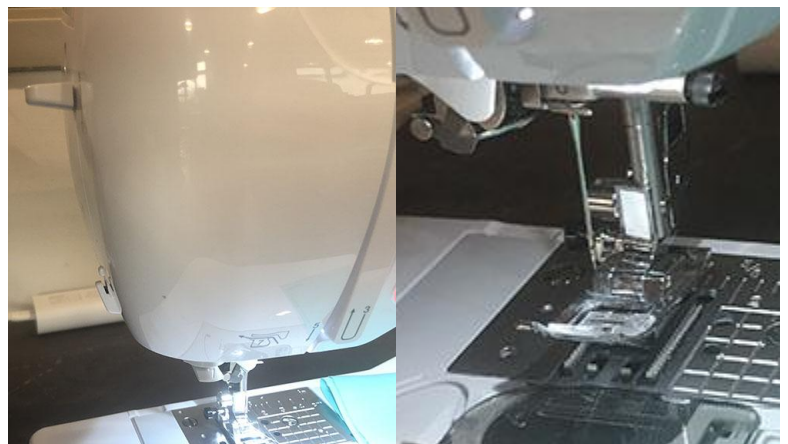


Now that the thread is fully through the machine, all that's left is to use the automatic needle threader. For this process you need to lower the foot, using the lever on the back of the machine.

Once the foot is lowered, slowly pull the lever on the left side of the machine (above the thread blade) down. As you pull it down, the mechanism from step 7 will drop and twist to push the thread through the eye of the needle.

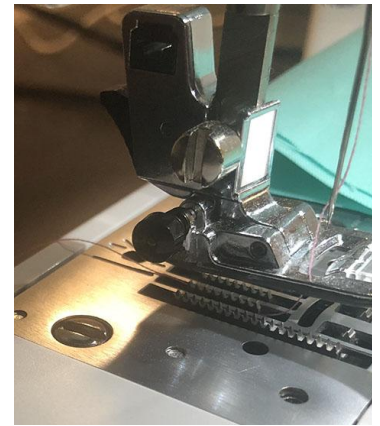
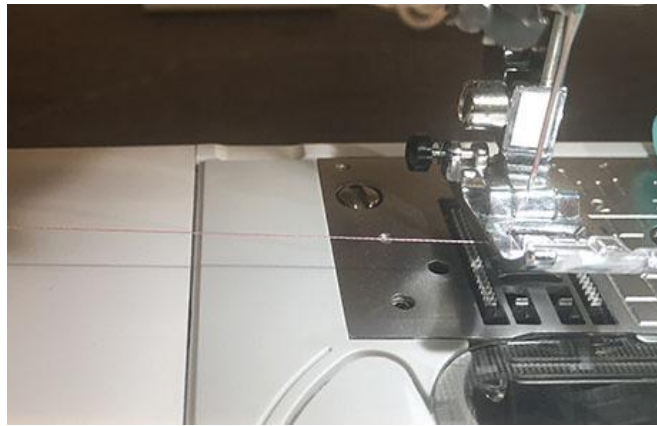
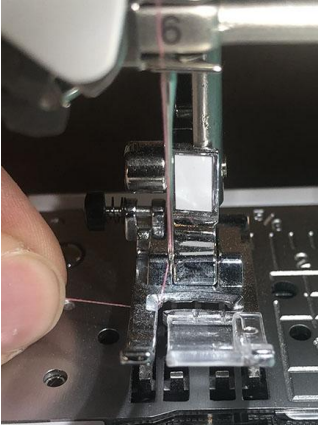


After the needle is threaded, the mechanism will pop back up and you can slowly raise the lever back to the top of the machine. You can also raise the foot again at this point.





The threader pushes the thread through the eye of the needle, but before it can be used to sew, it needs to be adjusted, otherwise it will just be pulled out by the first movement of the machine. Grip the tail of the thread from the needle and pull it through the foot and towards the back of the machine. You should pull until there are about 2 in or 5 cm of thread coming from the needle.

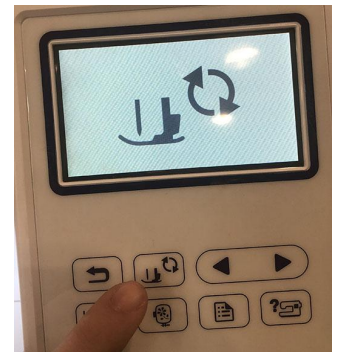


At this point the spool thread is fully set up and you can close the top cover of the machine if you wish. Leave the safety button pressed, you will still need the needle stopped for putting the full bobbin in the machine.

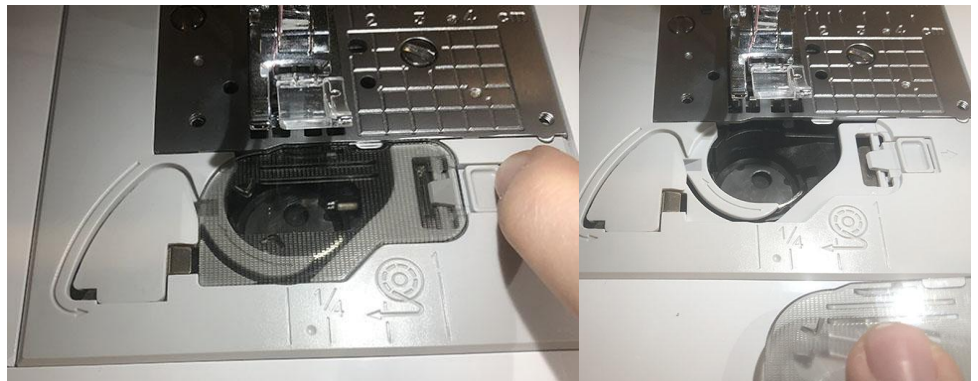


## Putting in a Bobbin:

If it is not already engaged, press the safety lock button on the front of the machine before going to put in a bobbin.



With the foot raised, you can access the small gray switch on the base of the sewing machine. Pull it to the right and the transparent bobbin cover will pop up, allowing you to lift and remove it.

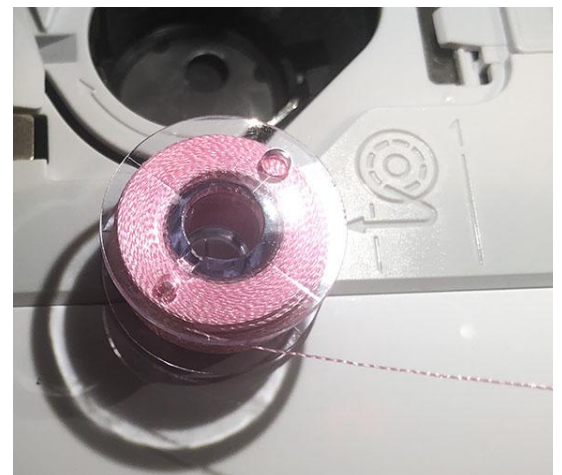


Before putting your bobbin into the machine, you need to make sure that it will unwind in the correct direction.

If you are looking at the bobbin from the top down on the table, it should unwind from the left (counterclockwise), like in the image here and the drawing on the bobbin case. The image and arrows on the bobbin case show the path of the thread for loading in the bobbin.

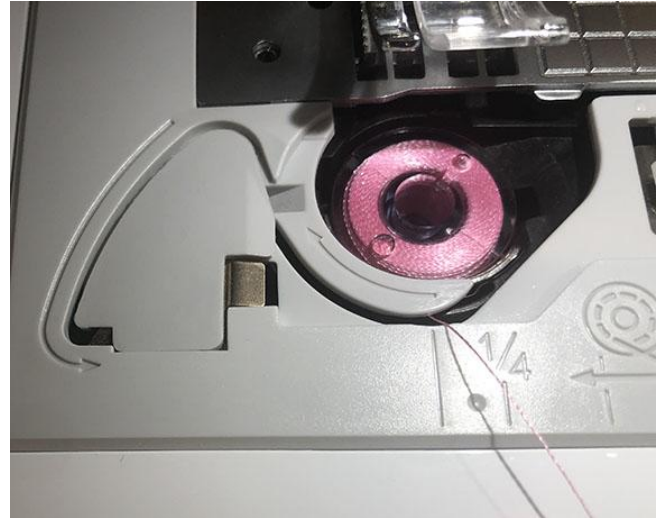


Pull out around 4 in or 10 cm of thread from the bobbin so that you have enough thread to feed it into the machine.

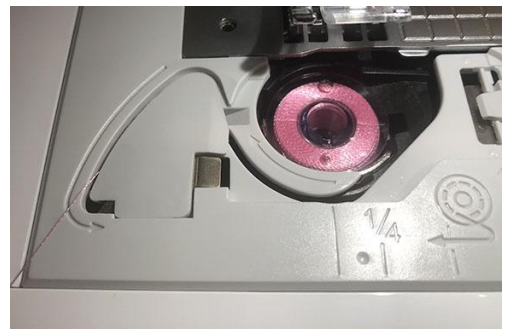
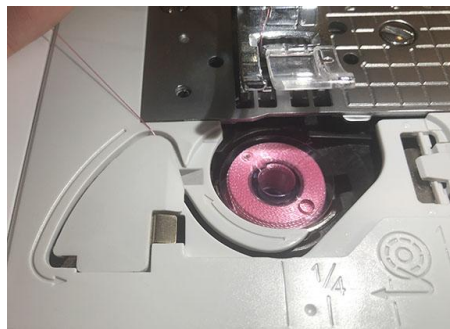
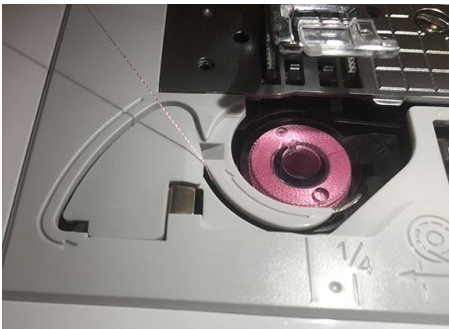


Drop the bobbin into the main opening in the machine.

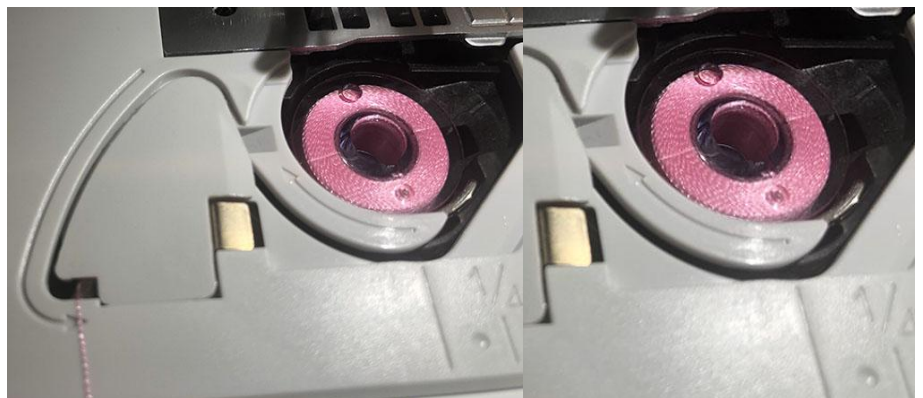
Slide the thread tail under the plastic arm just below the bobbin and into the slot in the plastic.



Bring the thread through the slot, following the full curve to the end.

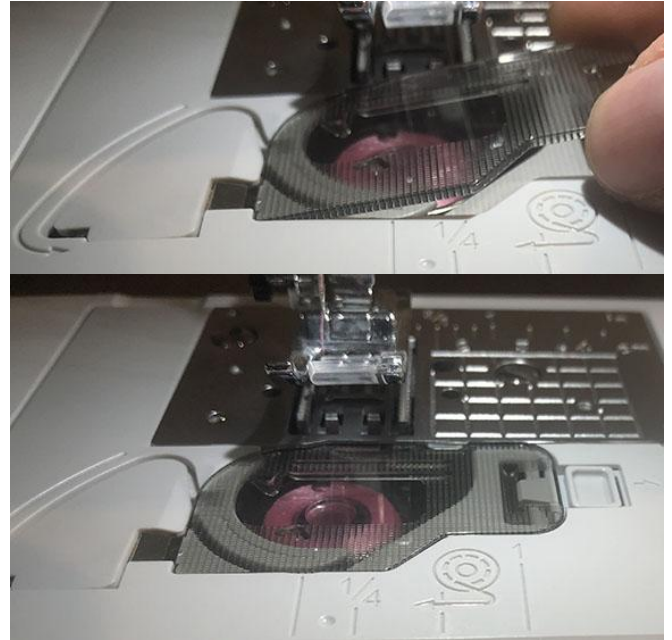


At the end of the slot is a small blade, pull the thread against it to cut the extra thread off if you are going to let the machine grab the bobbin thread automatically. In most cases, this is what you want to do.

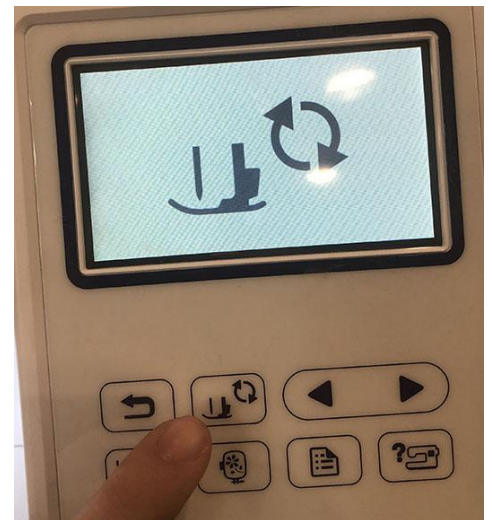




After cutting the thread, replace the clear cover over the bobbin area. Line up the end with the hole in the case and push it in and down until it clicks.

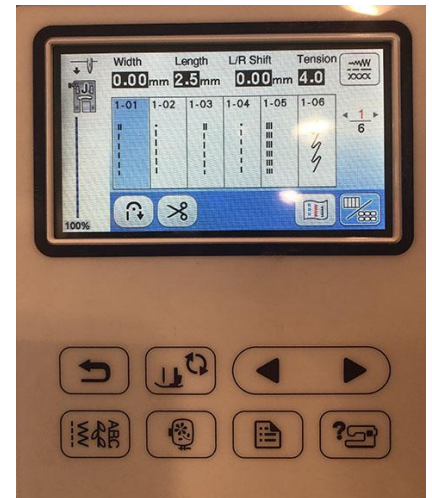


Now the bobbin is ready to go and when you start sewing the machine will grab the thread automatically. Unlock the safety button on the front of the machine to get to the stitch selection menu and be able to start sewing.



## Selecting a Stitch:

When the machine is loaded with thread, you need to pick which stitch you want to sew with. Most of the time the default stitch selected when the machine turns on will be what you need, but if you want to pick a different stitch, this is how.



Press the stitch selection button on the front of the machine.

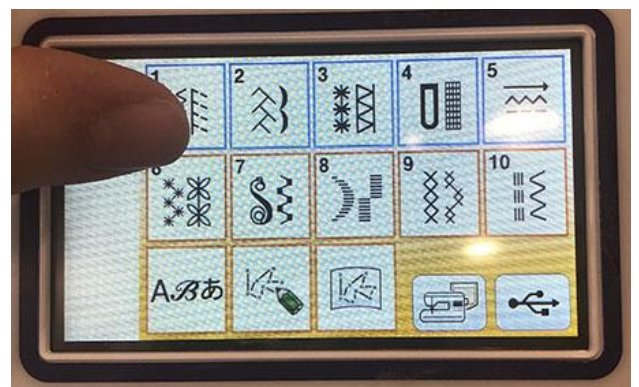


This will bring up the main stitch category window.

Tap the category that has the stitch you want to use in it; the category symbol shows generally what kinds of stitches are in that group.



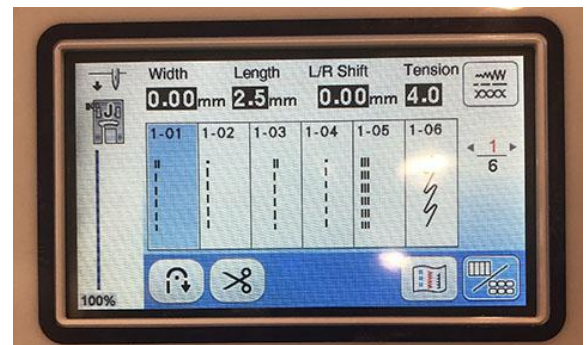
All of the stitch options, and what number/group they are in, are drawn on the inside lid of the sewing machine, but you can also see them at the end of this section.



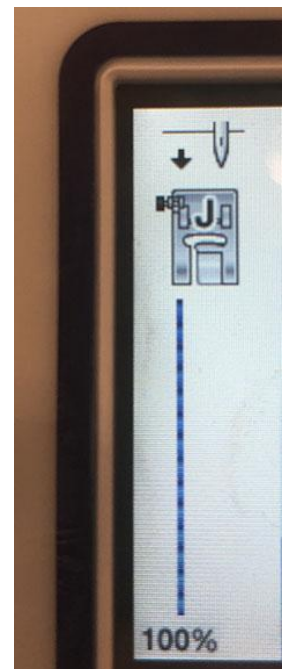
Once you've selected the category, use the arrow buttons on the front of the screen to flip through the pages in the category until you find the stitch you are looking for.



When you find the stitch you want, tap it on the screen so it is highlighted in blue. The needle may shift so it is positioned correctly for the stitch.



Once you have your stitch selected, you will need to confirm that the foot installed in the machine matches the foot that the stitch requires. The foot the stitch wants you to use will be displayed in the upper left hand corner of the touch screen, just above the line showing what the stitch will look like.





## Stitch Options:

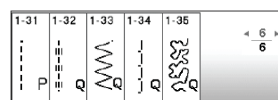
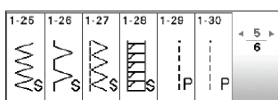
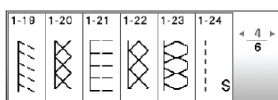
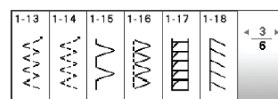
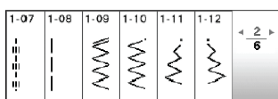
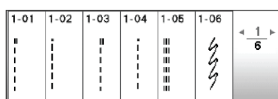
Utility Stitches: Groups 1-5. These are useful for sewing 2 or more layers of fabric together that are not just for decoration. These also include button and buttonhole stitches.

Decorative Stitches: Groups 6-10. These are for adding embellishment to fabric or for quilting.

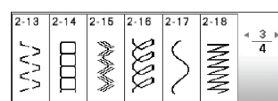
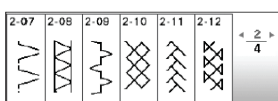
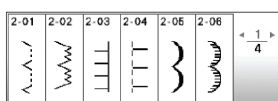
Character Stitches: Group ABC. These are useful for adding letters or words to things (ex sewing your name into your clothing). There are a few different alphabets and styles of lettering.

## Utility Stitches:

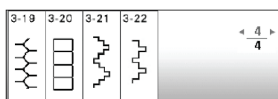
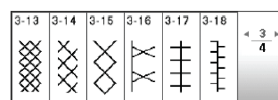
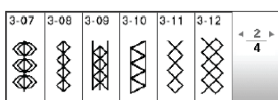
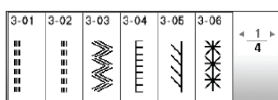
### • 1-01~1-35



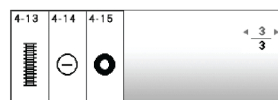
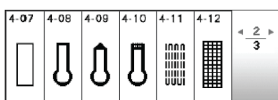
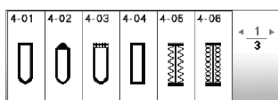
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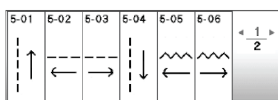
### • 3-01~3-22



### • 4-01~4-15

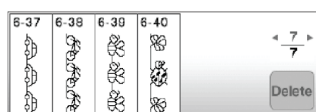
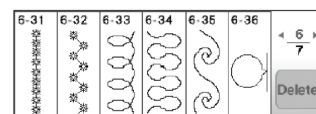
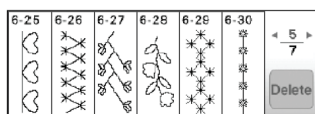
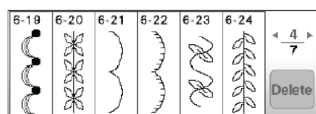
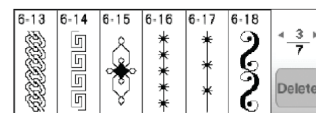
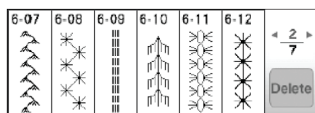
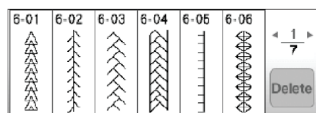


### • 5-01~5-08

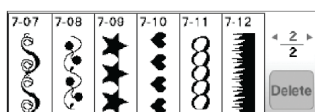
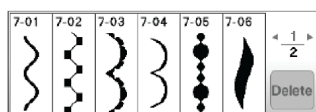


## Decorative Stitches:

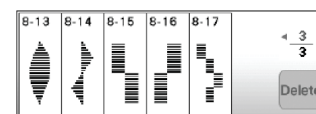
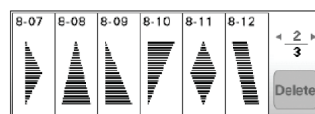
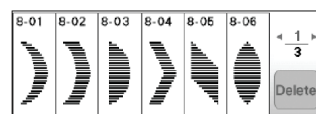
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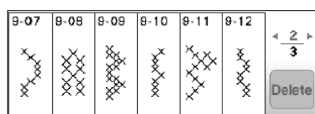
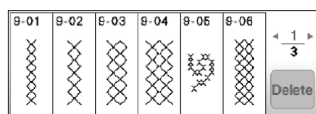
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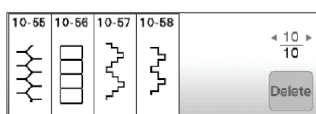
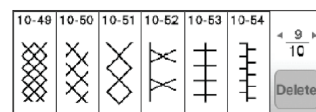
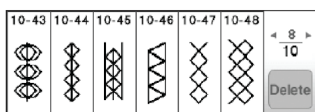
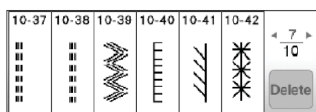
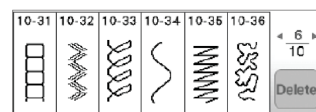
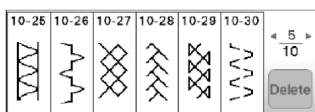
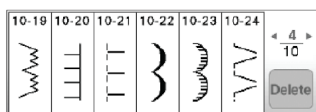
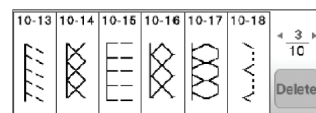
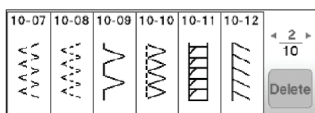
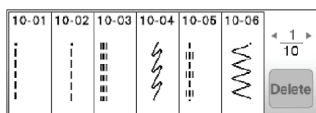
### • 8-01~8-17



### • 9-01~9-14



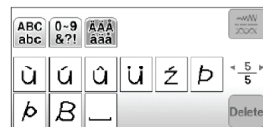
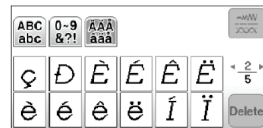
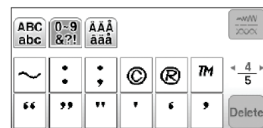
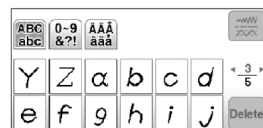
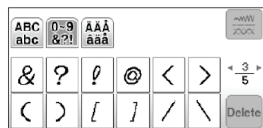
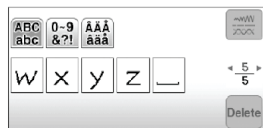
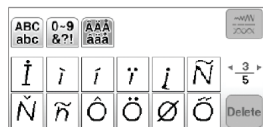
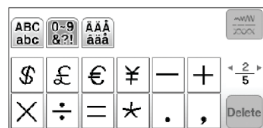
### • 10-01~10-58



## Character Stitches:

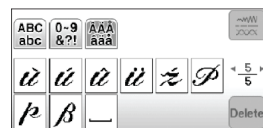
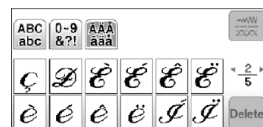
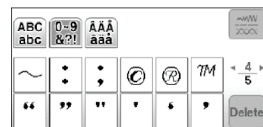
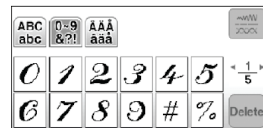
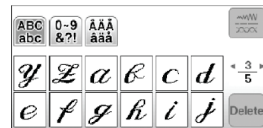
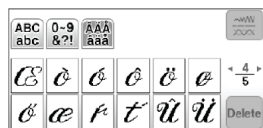
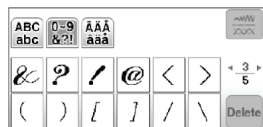
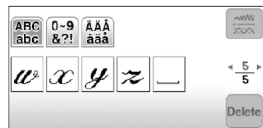
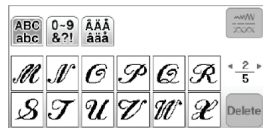
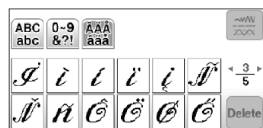
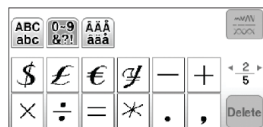
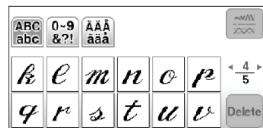
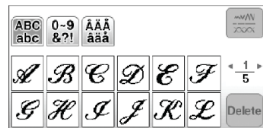
Aあ

AB



Aあ

AB





A.あ

AB

ABC abc	0-9 &?! aaa						~wW ~wW
A	B	C	D	E	F	< 1/5 >	
G	H	I	J	K	L	Delete	

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M	N	O	P	Q	R	< 2/5 >	
S	T	U	V	W	X	Delete	

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Y	Z	a	b	c	d	< 3/5 >	
e	f	g	h	i	j	Delete	

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k	l	m	n	o	p	< 4/5 >	
q	r	s	t	u	v	Delete	

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						Delete	

ABC abc	0-9 &?! aaa						~wW ~wW
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6	7	8	9	#	%	Delete	

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\$	£	€	¥	¤	+	< 2/5 >	
×	÷	=	≠	°	′	Delete	

ABC abc	0-9 &?! aaa						~wW ~wW
&	?	!	@	<	>	< 3/5 >	
(	)	[	]	/	\	Delete	

ABC abc	0-9 &?! aaa						~wW ~wW
~	°	º	©	®	™	< 4/5 >	
ø	º	º	°	ø	º	Delete	

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						Delete	

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Ç	Ð	È	É	Ê	Ë	< 2/5 >	
è	é	ê	ë	í	ï	Delete	

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İ	ı	í	ï	ì	ñ	< 3/5 >	
ñ	ñ	ô	ö	ø	ó	Delete	

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œ	ò	ó	ô	ö	ø	< 4/5 >	
ó	œ	ř	ŕ	û	ü	Delete	

ABC abc	0-9 &?! aaa						~wW ~wW
ù	ú	û	ü	¿	Ð	< 5/5 >	
þ	ß					Delete	

A.б

AB

AB	ab	0-9 &?! aaa				~wW ~wW	
A	B	В	Г	Д	Е	< 1/4 >	
Ё	Ж	З	И	Й	К	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
Л	М	Н	О	П	Р	< 2/4 >	
С	Т	У	Ф	Х	Ц	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
Ч	Ш	Щ	Ъ	Ы	Ь	< 3/4 >	
Э	Ю	Я	Г	Е	І	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
İ	ı	ñ	ñ	J	Љ	< 4/4 >	
Ѓ	Ѕ	Ї	Ї	Ї	Ї	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
а	б	в	г	д	е	< 1/4 >	
ё	ж	з	и	й	к	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
Л	М	Н	О	П	Р	< 2/4 >	
С	Т	У	Ф	Х	Ц	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
Ч	Ш	Щ	Ъ	Ы	Ь	< 3/4 >	
Э	Ю	Я	Г	Е	І	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
İ	ı	ñ	ñ	J	Љ	< 4/4 >	
Ѓ	Ѕ	Ї	Ї	Ї	Ї	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
0	1	2	3	4	5	< 1/2 >	
6	7	8	9	—	.	Delete	

AB	ab	0-9 &?! aaa				~wW ~wW	
,	&	?	!	(	)	< 2/2 >	
/	'	—				Delete	

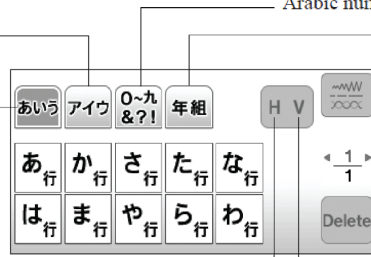


Katakana characters: One of the Japanese character sets.

Hiragana characters: One of the Japanese character sets.

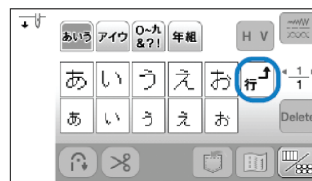
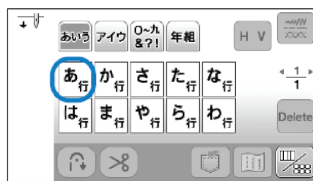
Arabic numerals, Japanese Kanji numerals

Kanji characters: Often used in daily life / symbols.



Horizontal

Vertical



あ行



か行



さ行



た行



な行



は行



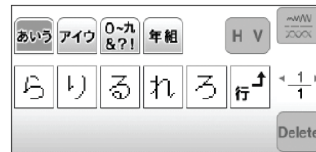
ま行



や行



ら行



わ行



あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ア行	カ行	サ行	タ行	ナ行	1/1
ハ行	マ行	ヤ行	ラ行	ワ行	Delete
<div> </div>					



あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
アイウ	エ	オ	1/1		
アイウ	エ	オ	ヴ	Delete	
<div> </div>					

ア行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ア	イ	ウ	エ	オ	1/1
ア	イ	ウ	エ	オ	ヴ Delete

カ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
カ	キ	ク	ケ	コ	1/1
ガ	ギ	グ	ゲ	ゴ	Delete

サ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
サ	シ	ス	セ	ソ	1/1
ザ	ジ	ズ	ゼ	ゾ	Delete

タ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
タ	チ	ツ	テ	ト	1/1
ダ	ヂ	ヅ	デ	ド	ツ Delete

ナ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ナ	ニ	ヌ	ネ	ノ	1/1
					Delete

ハ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ハ	ヒ	フ	ヘ	ホ	1/2
バ	ビ	ブ	ベ	ボ	Delete

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
パ	ピ	プ	ペ	ポ	2/2
					Delete

マ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
マ	ミ	ム	メ	モ	1/1
					Delete

ヤ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ヤ	ユ	ヨ			1/1
ヤ	ユ	ヨ	Delete		

ラ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ラ	リ	ル	レ	ロ	1/1
					Delete

ワ行

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
ワ	ヲ	ン	ー		1/1
					Delete

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
0	1	2	3	4	5
6	7	8	9	〇	ー Delete

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
二	三	四	五	六	七
八	九	十	&	?	! Delete

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
(	)	ー	ー		3/3
					Delete

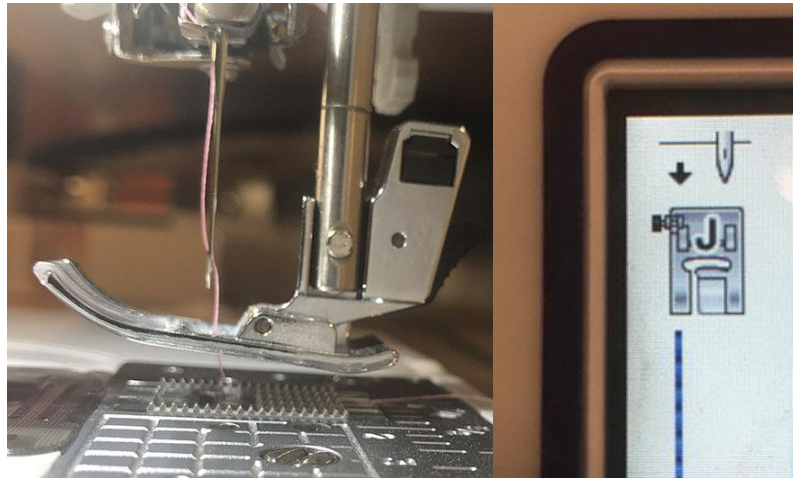
あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
生	年	月	日	才	保
育	幼	稚	園	小	中 Delete

あいう	アイウ	0~9 &?!	年組	H V	~WW ZXX
学	校	組	部	火	水
木	金	土	ー		2/2 Delete



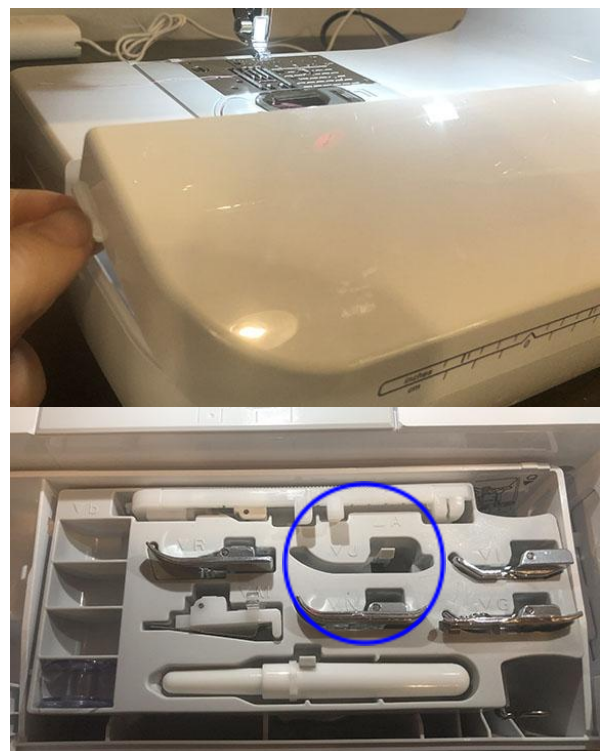
## Changing the Foot:

Depending on which stitch you are using, you may need to change the foot that is installed in the sewing machine. The main reason to change the foot is so that as the needle moves up and down, it won't hit the foot on its path.

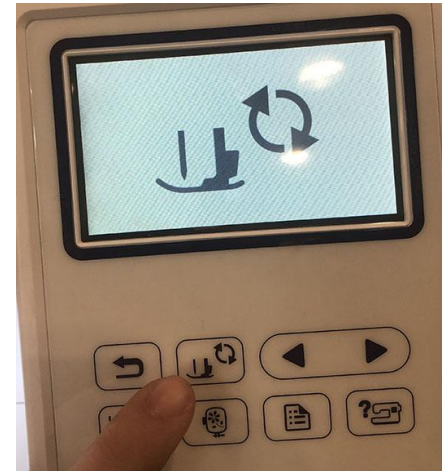


If you are using the default stitch, it is very likely that the foot you need, J, is already installed in the machine.

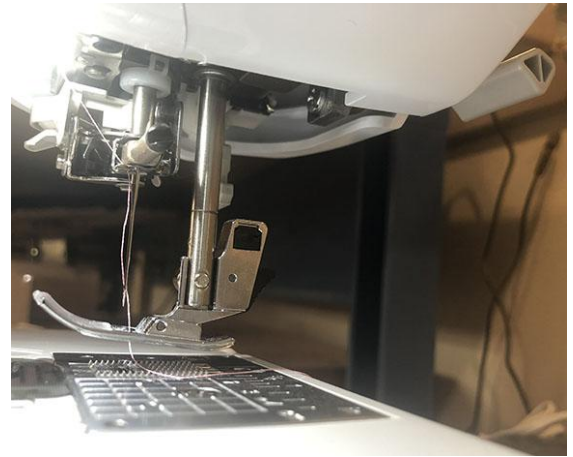
You can confirm that by opening the lower cover and looking at the tray of feet to see which of them is missing.



If you need to change the foot, the first thing you need to do is press the safety button on the front of the machine to lock the machine.



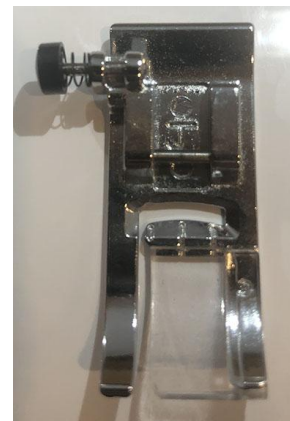
Then raise the foot using the lever at the back of the sewing machine.



Just above the back of the foot itself, there is a small black lever. Push this in to unlock the foot, it should drop on its own after the lever is pressed.



Carefully pull the foot out from the needle area.

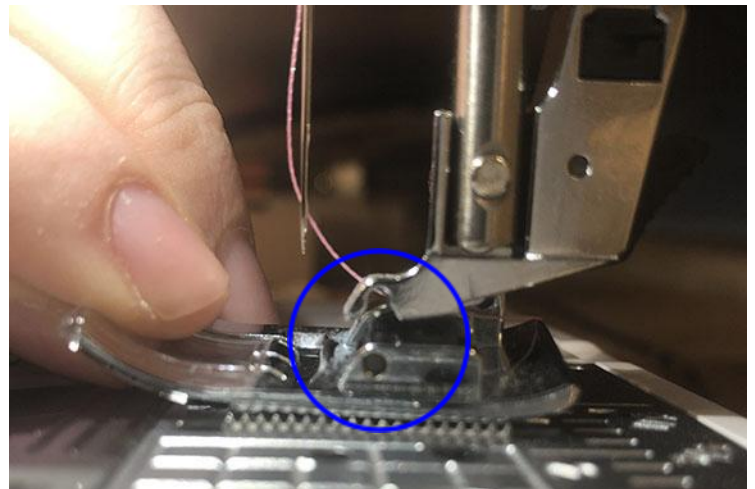


Put the foot that was in the machine back in its slot in the tray of feet and pull out the one that you will be installing.

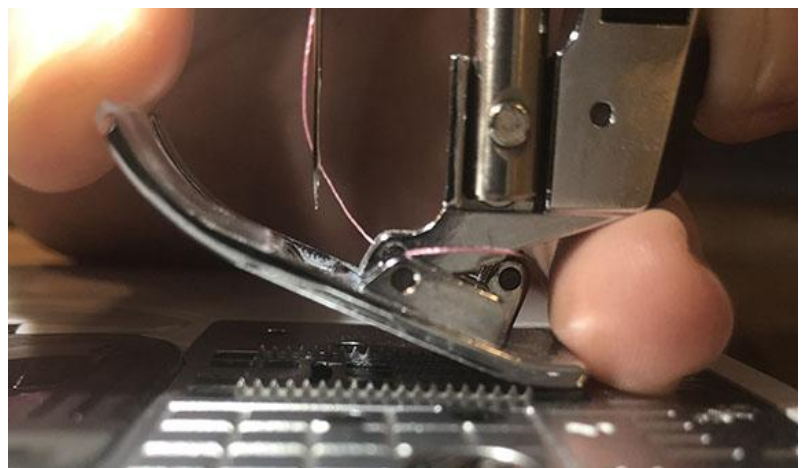
Close the lower cover.



Line up the pin on the top of the foot with the curved slot in the foot/needle assembly.

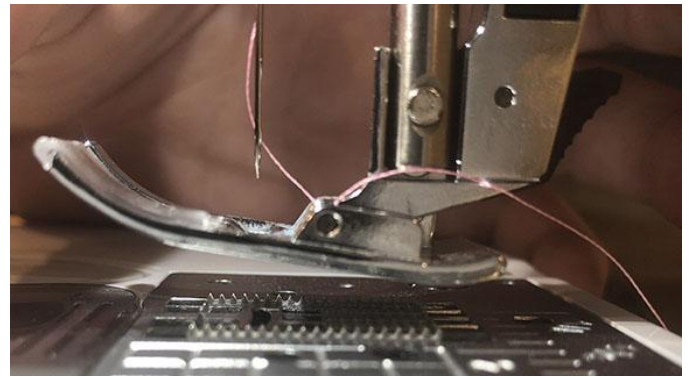


Press the small black lever at the back of the foot/needle assembly to unlock it and press the pin on the top of the foot into the curved slot at the same time.





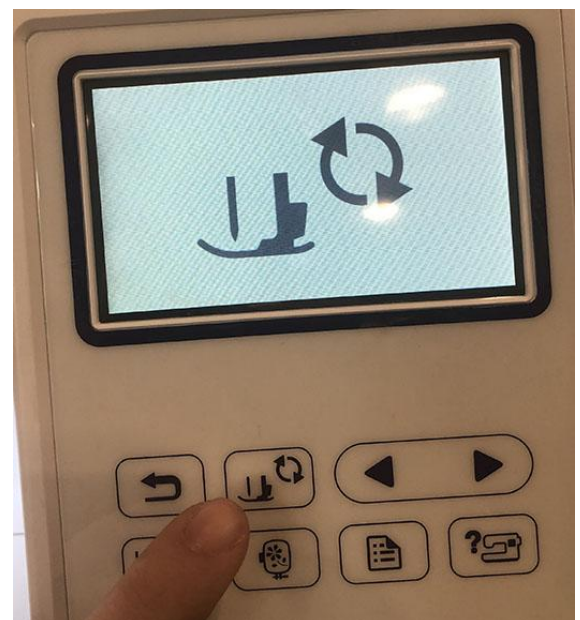
When you release the lever, the foot should stay up on its own if it has been installed correctly.



Raise and lower the foot a couple of times to confirm that it is solidly installed.



Once it is installed, you can press the safety button on the front of the machine to unlock it.



## Sewing:

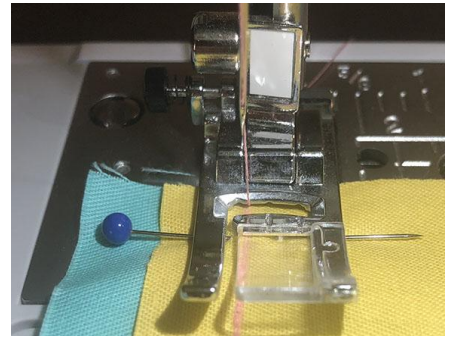
With your stitch selected, thread loaded in the top and bottom, the foot installed, and your fabric pinned, you are ready to sew! **Read all the instructions in this step before starting**, because once you start things move fairly quickly.

With the foot raised, bring your fabric under the foot. Line up the place you want your stitch to start with the needle.

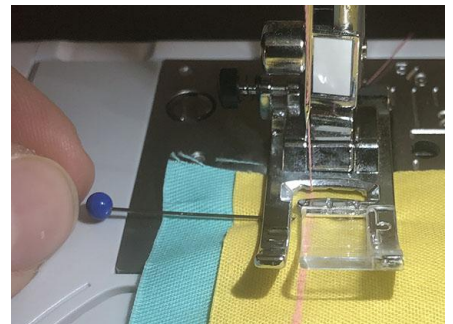


Lower the foot to hold your fabric in place.

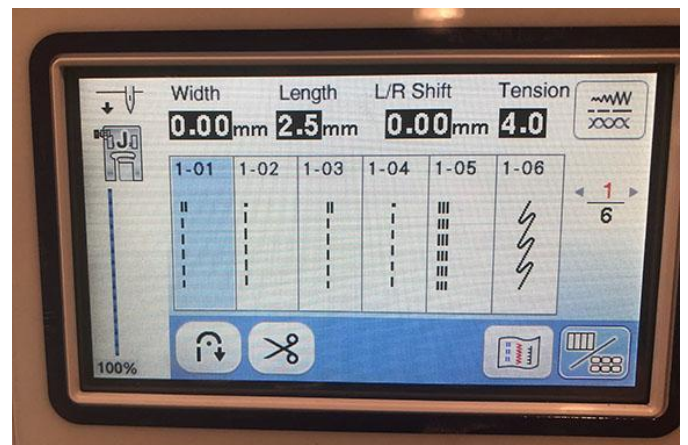
If there is a pin right where you want the stitch to start, be sure to pull it out before you start sewing.



When actually sewing, you should pull out the pin before it reaches the foot. For the first pin however, it is helpful to lower the foot directly onto it, then remove the pin so that the fabric is firmly held in place by the machine.

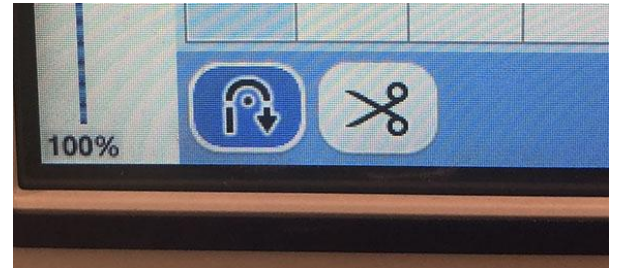


On the touchscreen, there is an upside down “U” shaped arrow, if this is the start of your stitch, you should press that button.





When pressed, it will be highlighted in blue. This will functionally tie a knot in the thread at the start of your stitch so it won't fall out on its own. It does this by reversing for a few stitches right at the start.



Adjust the speed to a speed you feel comfortable with sewing at.



Press the, now green, start button and release to start sewing.

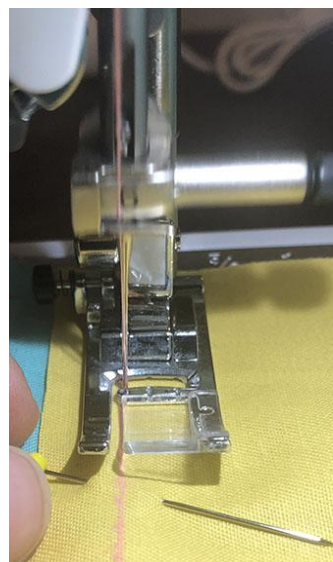
With the reverse (upside down “U”) button digitally pressed, the machine should sew forward a couple stitches, then back for a few, before it moves forward again.

After it completes those starting stitches, you can place one hand on either side of the needle to help guide your fabric through in a straight line. Don't pull or push it through, you are just guiding the direction, not the pace.



As you sew, don't forget to pull out the pins before they go under the foot and near the needle.

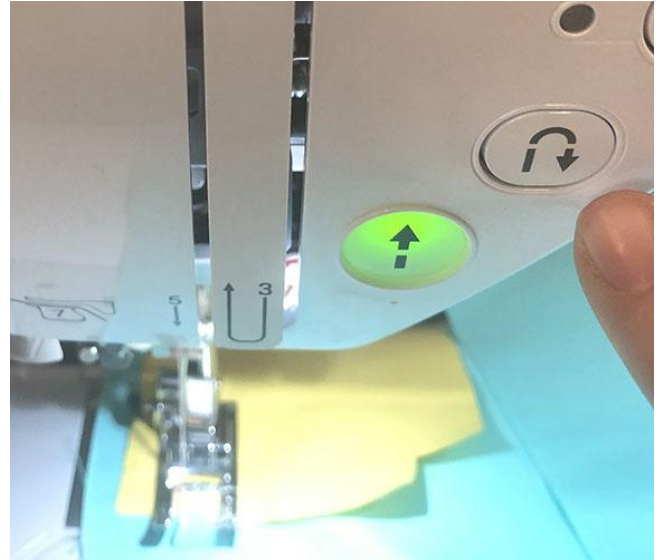
It can be helpful to have either the pin tomato or one of the magnetic trays next to the sewing machine to collect the pins as you remove them.





When you are approaching the end of your stitch, press the physical reverse button just above the start button on the machine.

This will finish off the stitch with a few reverse stitches just like it did at the start. When the machine completes the reverse stitches, it will stop itself as it is done sewing.



After the machine stops, press the scissor button on the front of the machine to cut the extra thread tails and raise the needle out of your fabric.



You can now raise the foot and carefully pull your fabric out from under the needle area.

At this point you can cut the extra thread from the start of the stitch off as well using a pair of fabric scissors.



Your fabric is now sewn together! Repeat this last stage as many times as you need to sew your project together.



Once you are finished sewing, just be sure to turn off the sewing machine using the switch on the side.

