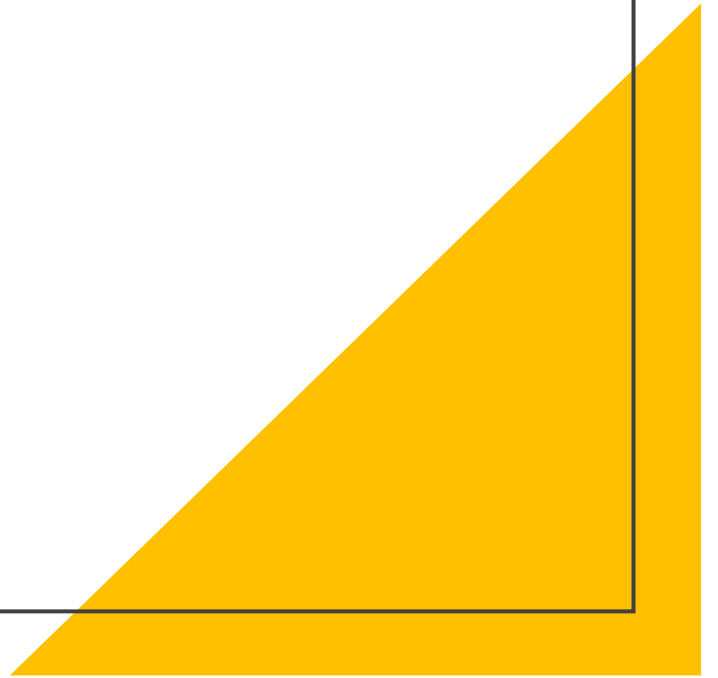


# Embroidery Basic training



1. Optimum thread
2. Needle
3. Embroidery mechanism with bobbin case damage (Incorrect stitch)
4. Suitable materials for embroidery
  - ❖ Backing material
  - ❖ Kinds of backing material
  - ❖ How to use backing material
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  - ❖ Embroidery mechanism (Why skipped stitches occur)

# Optimum thread

➤ It is necessity to use special threads for embroidery!!.



Embroidery thread is labeled “Embroidery”.

# Optimum thread

- It is necessary to use special threads for embroidery!!
- Brother has released 2 types of embroidery bobbin thread.



#60 is for combo machine.



#90 is for embroidery only machine.

#90 embroidery bobbin thread should be used on embroidery only machines such as PP1.

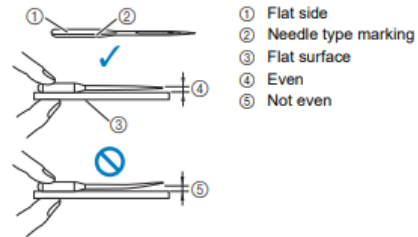
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# Needle

## ■ Embroidery needles

It is recommended to use a 75/11 home sewing machine needle. However, if the machine is not stitching well when embroidering on heavy weight fabric, please try a 90/14 needle.

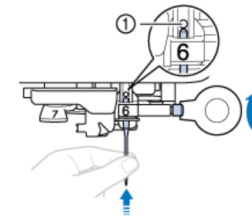
Before using the needle, place the flat side of the needle on a flat surface and check that the distance between the needle and the flat surface is even.



### Note

The machine needles are consumables. Replace the needle in cases such as those described below.

- If an unusual sound is produced when the needle enters the fabric. (The tip of the needle may be broken or dull.)
- If stitches are skipped. (The needle may be bent.)



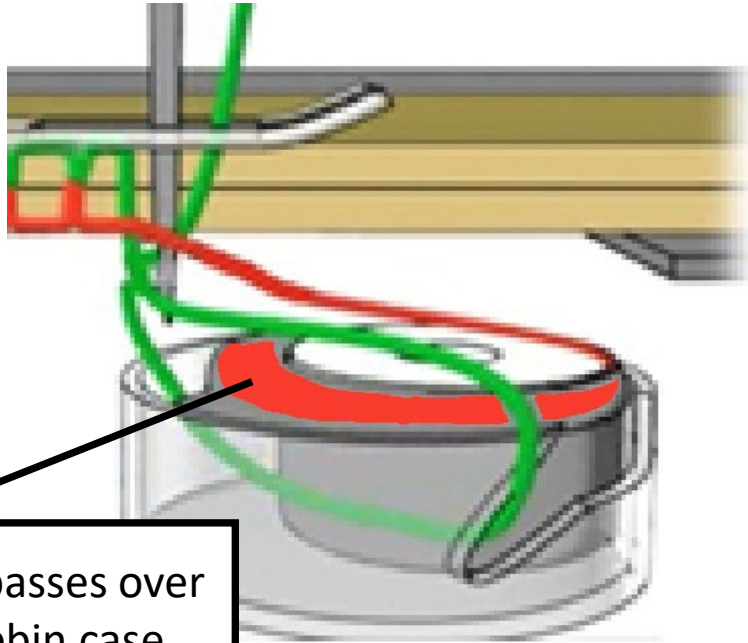
① Needle stopper

## ⚠ CAUTION

Be sure to insert the needle until it touches the needle stopper and securely tighten the needle clamp screw with the screwdriver, otherwise the needle may break and cause injury.

## Embroidery mechanism with bobbin case damage (Incorrect stitch)

The Upper thread passes over the surface of the bobbin case during stitch formation. If there is damage to the bobbin case, the upper thread will get caught on the nicks and burrs formed on the bobbin case. In this case thread jamming / breaks will occur.



The Upper thread passes over the surface of bobbin case.



Damage caused by needle colliding with the bobbin case.

Please check bobbin case condition before embroidering and if there is any damage on it, replace with a new one.

# Suitable materials for embroidery

- Normal fabric : Material is mainly cotton



Fabric that is non-stretch, thick(max 2mm) is suitable for embroidering.

- Thick fabric : Denim, Quilt



## ❖ Backing material

- This is an auxiliary material placed under the material to be embroidered to make sure the upper thread and bobbin thread intertwine well on the wrong side of the fabric. Therefore, backing material is basically placed on the back side of the fabric.

## ❖ Kinds of backing material

- Iron-on backing material :
  - ✓ This is a general backing material. Backing material that has glue on the back and can be ironed is called adhesive backing material. The material is often paper and can be torn off by hand after embroidery.



## ❖ Kinds of backing material

- Water-soluble backing material (non-woven fabric):
  - ✓ The type that dissolves in water is called a water-soluble sheet. After embroidery, it dissolves when washed with water, so no backing material remains in the embroidery, making a neater embroidered finish on the underside compared to using regular backing material. Ideal for making towel embroidery and embroidery accessories.



## ❖ Kinds of backing material

- Water-soluble topping material (Vinyl type):
  - ✓ It is an auxiliary material that can be placed on top of fabrics such as toweling to help the stitches stay flat on the surface rather than being buried in the fabric pile. It will dissolve when washed with water after embroidery.



## ❖ How to use backing material

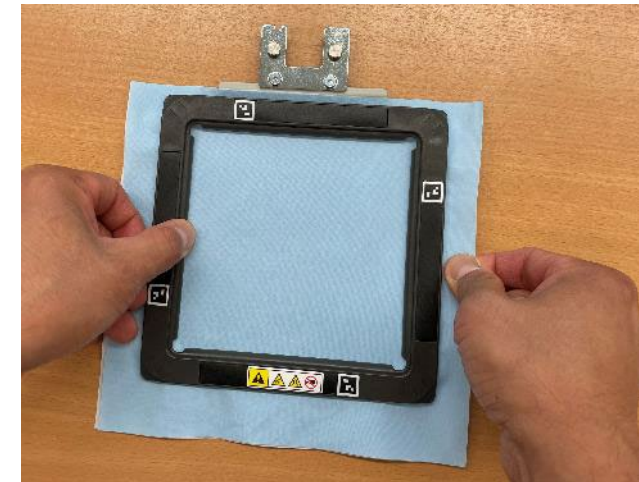
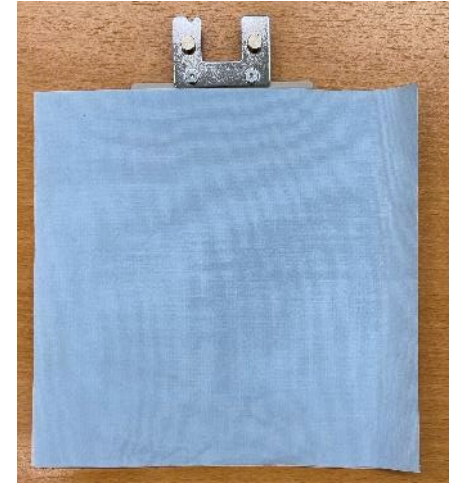
- Basically, backing material is larger than the frame used, and it is sandwiched between the frames along with the fabric to be embroidered. The purpose of backing material is support the fabric during embroidery to prevent it from distorting or puckering, this is particularly important for stretchy or delicate fabrics. Therefore, the backing material must cover the entire frame area to be effective.



## ❖ Basic hooping(Non-tubular item)

- ✓ Put backing material on bottom frame and place the fabric on top.
- ✓ Put upper frame on the fabric.  
Make sure the fabric is taut, not slack, when the upper frame is placed on top
- ✓ If the fabric slack, pull it lightly and make it taut.

The fabric should not be slack in any way!



## ❖ Tip for embroidering on difficult materials

### 1. Toweling

- Because it has a pile, the embroidery gets buried in the pile and looks undesirable. By placing a vinyl-type water-soluble sheet on the surface, the pile is flattened, and beautiful embroidery is achieved. Also, if you glue interlining to the back side, the loops of the towel fabric may pull when you peel it off, so basically don't glue it.



# ❖ Tip for embroidering on difficult materials

## 1. Toweling

With water-soluble stabilizer on top side



The pile of the toweling is flattened during embroidery by the water-soluble topping  
Achieves a beautiful finish

Without water-soluble stabilizer on top side



The embroidery is buried in the pile of the toweling.  
Poor finish

## ❖ Tip for embroidering on difficult materials

### 2. Stretch fabric

- Even though it is thick, the material itself stretches and contracts, making the embroidery more prone to distortion. Therefore, iron the adhesive interlining on the wrong side of the fabric. In some cases, two coats may be necessary.



Normal thickness



Thin material



Polo shirt



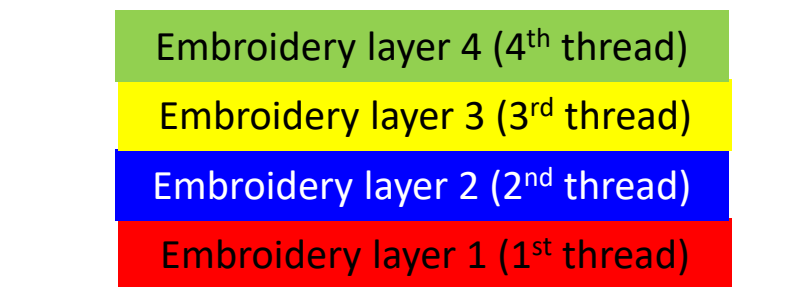
By applying adhesive to the back of the T-shirt with an iron, you can reduce the shrinkage/distortion of the fabric during embroidery.

Stitched areas with four or more layers are more prone to problems such as thread breakage.

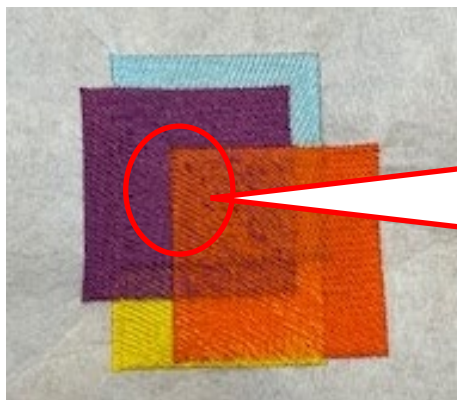
## ❖ Attention

- ✓ If stitches drop in the same position many times, the material will become hard and thread jamming / breaks will occur more frequently.

### NG

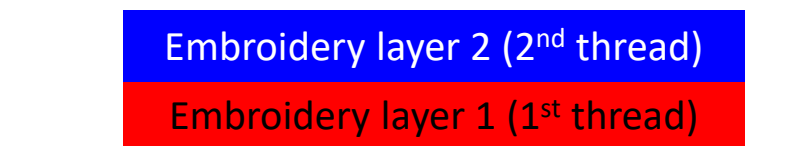


### Fabric

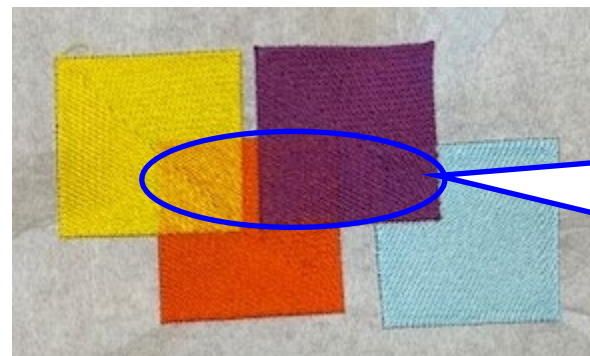


Stitched areas with four or more layers are more prone to problems such as thread breakage.

### Recommend



### Fabric



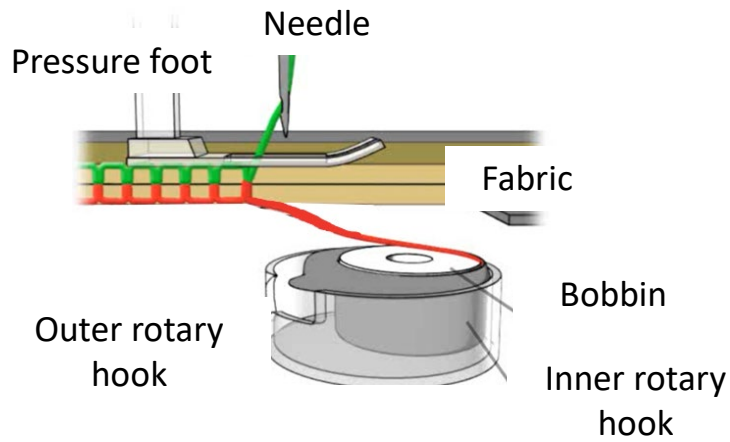
Stitched areas about 2 layers, it is possible to embroidery without problems.

# Appendix

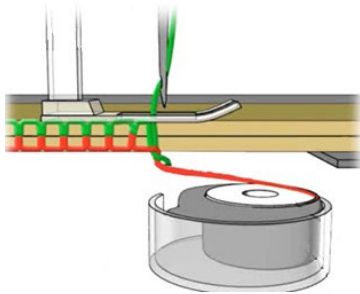
# ❖ Guidelines for using fabrics and stabilizer when embroidering

Fabric		Usase stabilizer	
Kinds of fabric	Materials	Top side	Bottom side
Normal For example: Shirt, apron	Cotton	No need	Iron on
Thick For example : Denim clothes, Jacket	Denim Quilting	No need	Iron on
Thin For example : Curtain, Lining	Georgette organdy	Put (Non-iron on)	Iron on
Stretch For example : Sweatshirt, Jersey	Knit, Jersey	Put (Non-iron on) *Water-solved type is recommended	Iron on
Toweling	Towel pile fabric	Put (Non-iron on) *Water-solved type is recommended	Put (Non-iron on)

# Embroidery mechanism (Why skipped stitches happen)



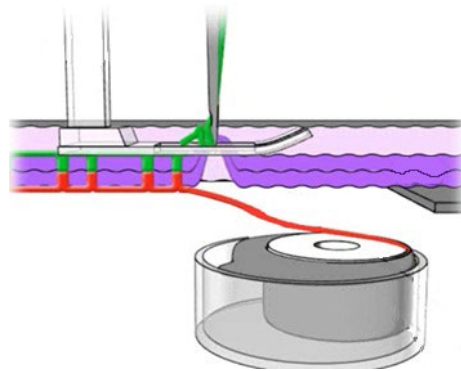
- Perfect stitch



Once the fabric is stabilized, upper thread and bobbin thread intertwine to form a stitch.



- Skip stitch



If the fabric is unstable, such as a stretchy fabric, the upper thread and bobbin thread will not intertwine and skipped stitches will occur.

