FREE EMBROIDERY TUTORIAL + PATTERN

Stem Stitch Embroidery

How to do stem stitch, with a leafy Christmas wreath to practise on · 5 in hoop

SKILL LEVEL	HOOP	DESIGN
Beginner	**5 in**	**3.3 in across**
FLOSS	**STITCHES**	**TIME**
DMC, 3 greens	**462 stem stitches**	**About 3 hours**

Materials

- DMC stranded cotton: DMC 3362, DMC 3347, DMC 3364 (1 skein each)
- 8 × 8 in cotton or linen, a 5 in hoop, a size 7 embroidery needle, small scissors, a water-soluble pen

Key

1, 3, 5	needle comes up	**2 strands**	separate 2 of the 6 strands
2, 4, 6	needle goes down	**L**	stitch length

Keep the working thread on the same side (below the line) for the whole line. Swap sides and you get outline stitch, which twists the other way.

Stem stitch

1	Come up at the start of the line.
2	Go down one stitch length along the line.
3	Come up halfway back along that stitch, with the thread below the needle.
4	Go down half a stitch past the end of the last stitch. Repeat 3 and 4.

The wreath

Ring	3 strands DMC 3362. Stem stitch all the way round, about 0.15 in stitches. End by going down into the first hole.	**(120 sts)**
Leaves	2 strands DMC 3347. Outline each leaf from the ring to the tip, one side then the other. Shorter stitches near the tip.	**(252 sts)**
Veins	2 strands DMC 3364. One short line from the base, stopping before the tip.	**(90 sts)**
Finish	Rinse out the pen, press face down on a towel, and frame in the hoop.	

How to Do Stem Stitch

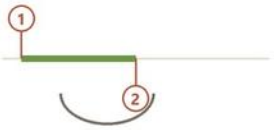
Odd numbers: needle comes up · even numbers: needle goes down · keep the thread below the needle

Step 1



Come up at 1 at the start of the line.

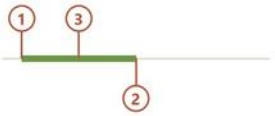
Step 2



thread below

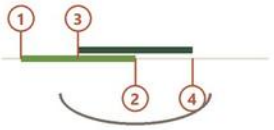
Go down at 2, one stitch length along.

Step 3



Come up at 3, halfway back, just above the stitch.

Step 4



thread below

Go down at 4: half a stitch past 2. Repeat 3–4.

Short Stitches on Tight Curves

A stitch is a straight line. On a curve it cuts the corner by $L^2 \div (8 \times \text{radius})$.



too long: 0.30 in

on a curve of 0.5 in radius it cuts in by 0.022 in (0.6 mm)



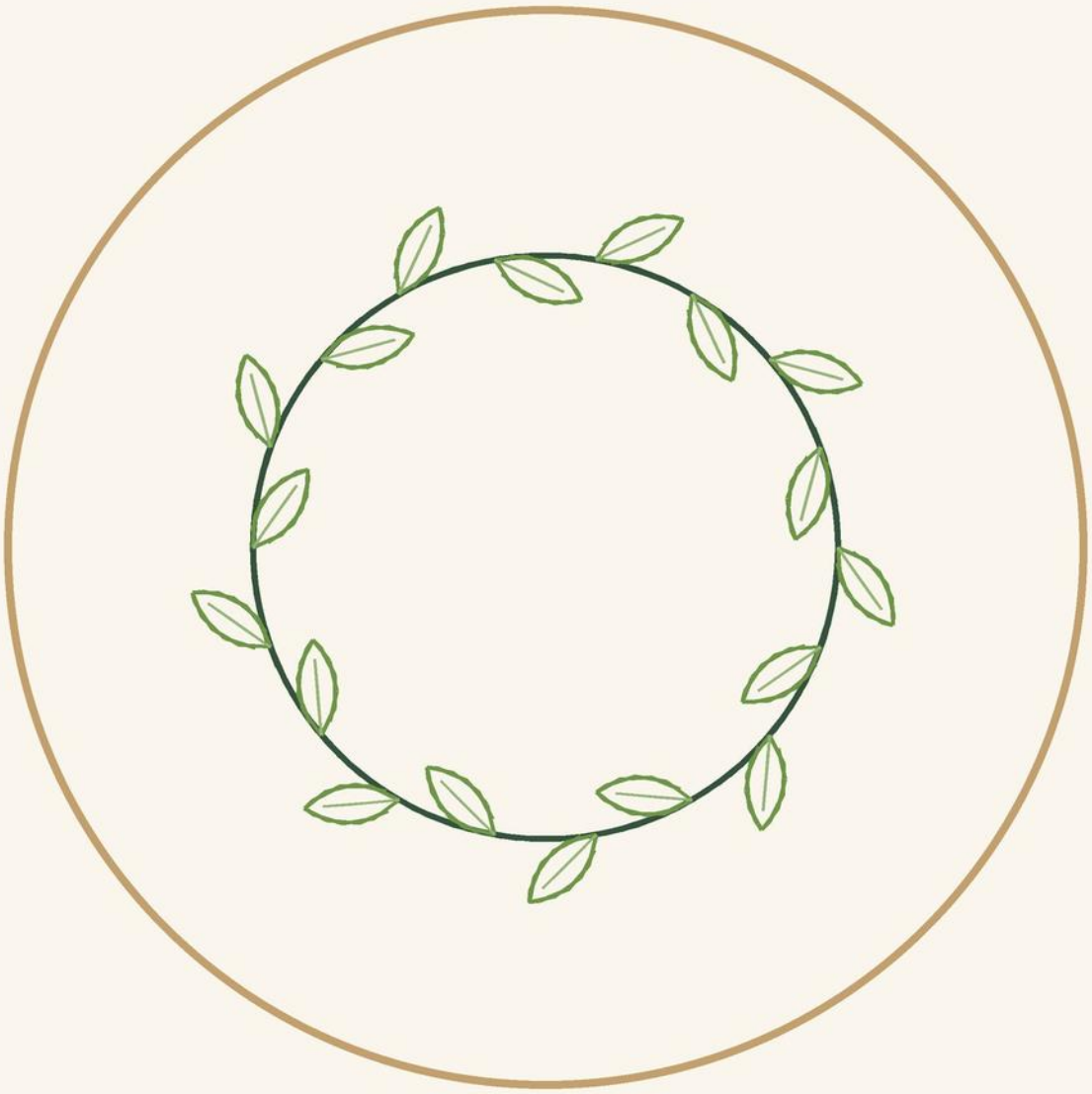
just right: 0.12 in

on a curve of 0.5 in radius it cuts in by 0.004 in (0.1 mm)

Keep the cut under 0.01 in: stitch length ≤ $\sqrt{(8 \times \text{radius} \times 0.01)}$. Gentle lines: up to 0.15 in (4 mm); leaf tips: down to 0.06 in.

Stem Stitch Wreath · Stitch Plan

Every line is stem stitch. Stitches get shorter where the line curves tightly.



Ring: 120 stitches, 3 strands DMC 3362 · leaves: 252 stitches, 2 strands DMC 3347 · veins: 90 stitches, 2 strands DMC 3364

Work the ring first, then each leaf: one side, the other side, then the vein. The hoop circle is 5 in.

Stem Stitch Wreath · Floss and Stitches

Counted from the design: 3 in of floss per inch of line (front + back), + 15% and 3 in tails

Part	Floss	Strands	Lines	Length	Stitches	Floss used
Ring	DMC 3362 dark pine gre	3	1	8.5 in	120	0.5 yd
Leaf	DMC 3347 medium yellow	2	36	17.6 in	252	2.6 yd
Veins	DMC 3364 light pine gre	2	18	6.3 in	90	1.2 yd

One skein (8.7 yd) of each colour is plenty. Use a size 7 embroidery needle.

cozymakery.com

Stem Stitch Wreath · print at 100% (actual size)

Trace onto an 8 × 8 in piece of cotton or linen and stitch it in a 5 in hoop.



light grey circle = inside of a 5 in hoop (don't trace it)

1 in check bar: measure it after printing