

Turtlestitch Mandala

Use the code to create a mandala with the embroidery machine.

AGE	TIME
7+ yrs	30-60 min

fabric | Turtlestitch | coding | embroidery

Scan for the online version

What do you need?

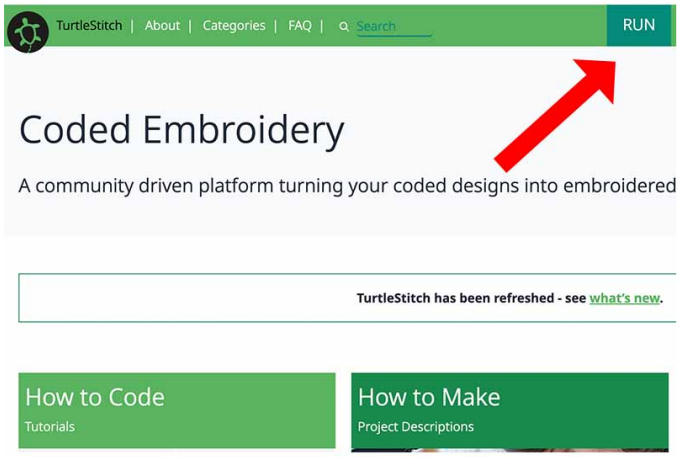
MATERIALS

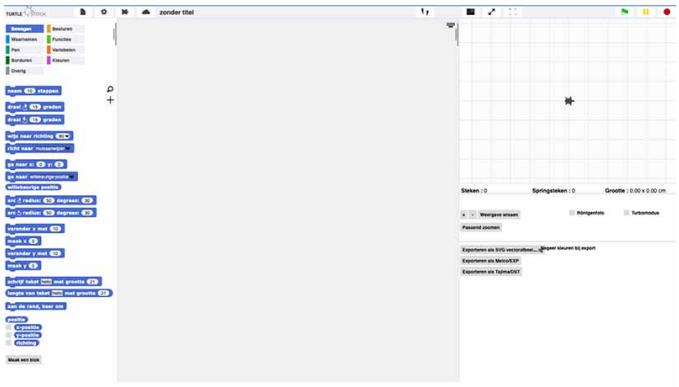
- [ ] Sturdy fabric
- [ ] Embroidery thread
- [ ] Stabiliser

TOOLS

- [ ] Embroidery machine
- [ ] Laptop
- [ ] Fabric scissors

Steps





1 Open Turtlestitch

- Open a browser and go to www.turtlestitch.org
- Click the ‘run’ button to start Turtlestitch



2 Flag / Reset

- Always start your programme with the flag block, followed by the reset block.

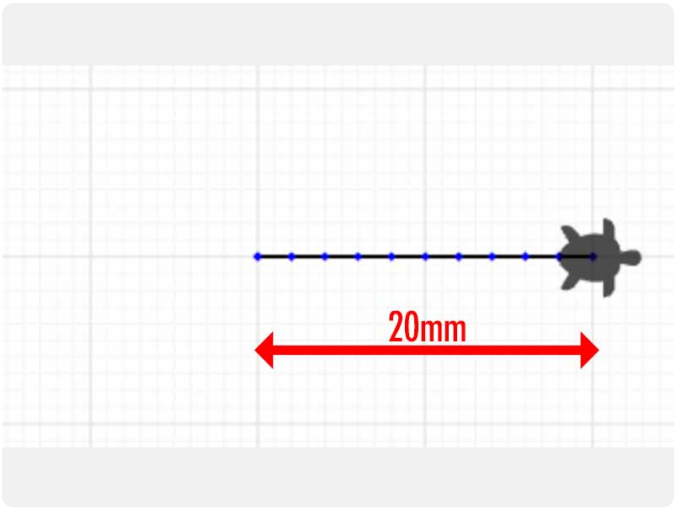




3 Drawing a line

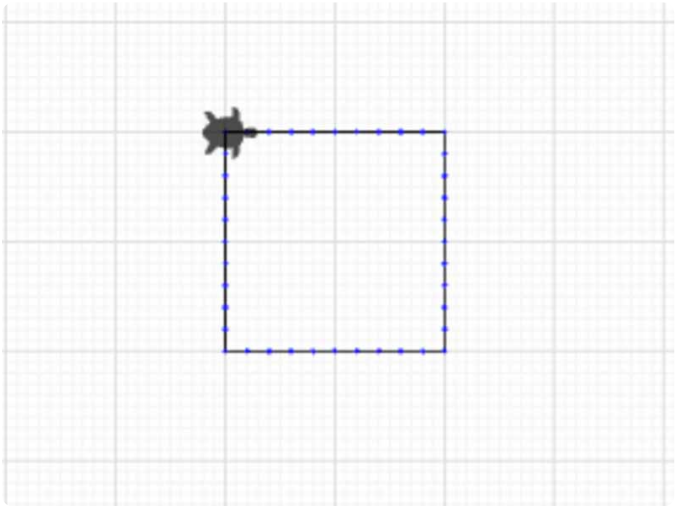
> **GOOD TO KNOW**
> Don’t use the ‘take steps’ block with a number that’s too high. The stitches will then be too large to work properly.

- To draw a line, use the ‘take steps’ block.
- In 10 steps, the needle moves 2 mm and then makes a stitch.
- By using the ‘repeat’ block together with the ‘take steps’ block, you can embroider a longer line.



3 Drawing a line — *continued*





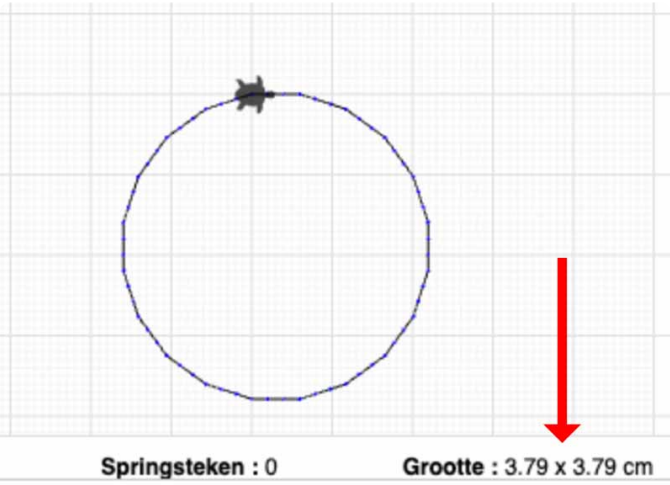
4 Making a square

- By using the ‘rotate’ block, you can create angles. A right angle is 90 degrees.
- Draw a square by connecting four lines and corners in sequence.
- You’ll notice you’re repeating yourself a lot. By using the ‘repeat’ block cleverly, you can achieve the same result with fewer blocks.



4 Making a square — *continued*





5 Making a circle

GOOD TO KNOW
Below the sample design, you can see how big your project will be. Make sure it doesn't exceed the size that the embroidery machine can handle.

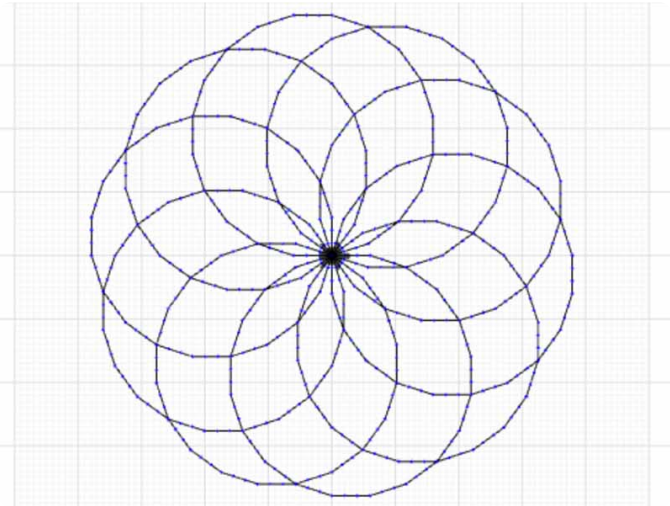
- By changing the values in your code, you can turn the square into a circle.



6 Adjust stitch and colour

- Using the dark green ‘embroidery’ blocks, you can adjust the colour and type of stitch.

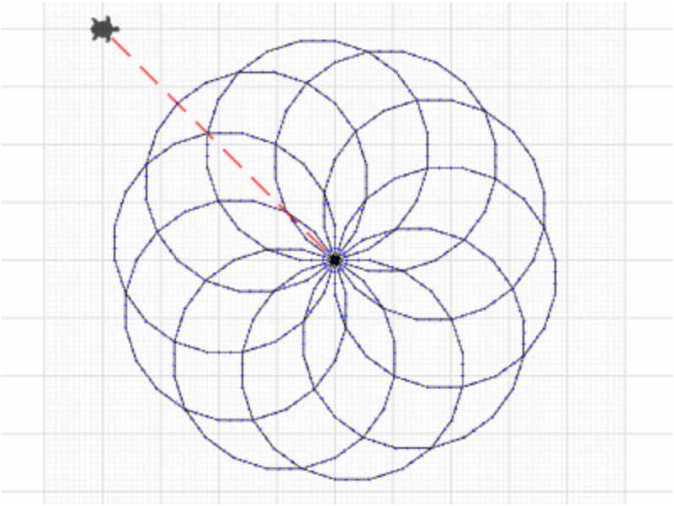




7 Making a mandala

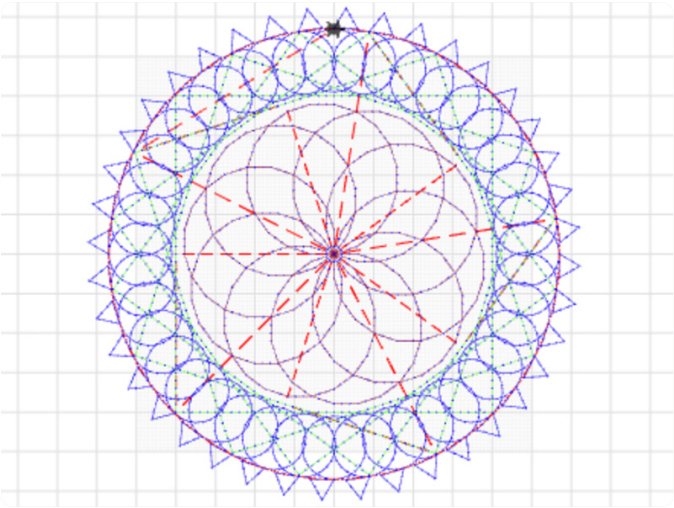
- By repeating several circles at an angle, you can create a mandala.





8 Adding a spring stitch

- Sometimes you need to move the needle without making a stitch. To do this, use the ‘jump stitch’ block.
- Set the machine to ‘jump stitch’ to ensure that no embroidery takes place.
- Then turn off the ‘spring stitch’ function to continue embroidering.



9 Finishing the mandala

- Combine all the techniques you’ve learnt to finish your mandala.



10 Export

- Once you've finished your mandala, click on the 'File' icon and then select 'Export as Tajima/DST'.
- Save your code to a USB stick that can be inserted into the embroidery machine.





11 Embroidery

- Use the embroidery machine to embroider your design.