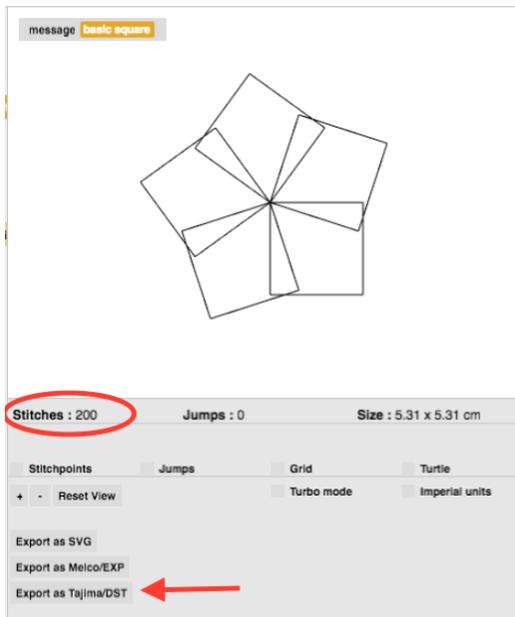


## Code Crafter Notes for Turtle Stitch

**Overview:** [TurtleStitch.org](http://TurtleStitch.org) is a website that allows you to create embroidery as you learn basic ideas about computer programming (coding.) You will need the Internet to access that site. Please ask for access information. Once the browser page is loaded you can disconnect from the Internet if necessary.

- Please see the [TurtleStich Beginners Cards](#) for a general overview of turtle stitch.
- We assume you know how to open applications and file folders on your machine. If in doubt, PLEASE ASK!

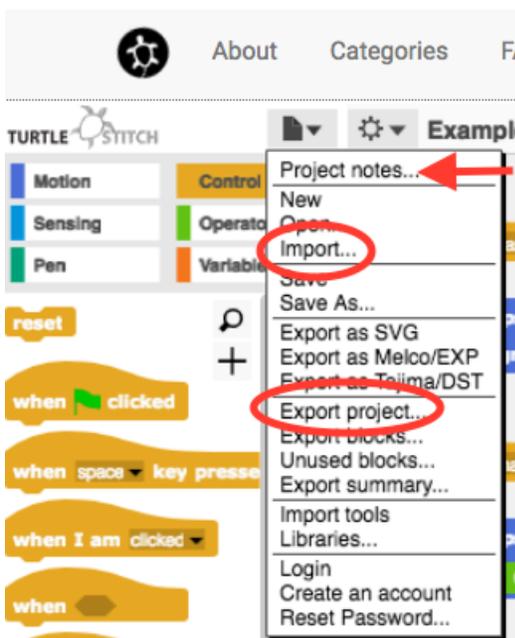


### Code Crafter Workshop Details:

- All of the materials and code samples are provided on our USB drives. Please ask to copy the folder to your computer.

- **VERY IMPORTANT: Make sure your pen is down when you run your design.** (Check to see that you have stitches!)

- We use Brother PE770 Embroidery Machines that read the **.dst** file format. When you have a design on the screen that you like, press the 'Export Tajima/DST' button to download the file to your computer. Transfer the file to a USB drive and we will show you how to use the machine.



### Load A Project From Your Computer:

To start, we encourage you to work from our folder of examples. You will be **importing** and **exporting** project files. Press the file icon and select 'Import'. Later when you want to save your work select 'Export project'. You can also study (and modify) the 'Project Notes.'

## Example 01 - Almost Everything You Need to know about coding with turtle stitch

These are notes, not full instructions. If you have questions, PLEASE ASK!. NOTE: Don't leave your cursor in an input area or nothing will happen when you press a key. (You'll see!!!) Please study and experiment with these scripts in order!

```
when I receive basic square
repeat 4
  move 100 steps by 10 steps
  turn 90 degrees
```

Create simple patterns using specific numbers (they are called constants).

Use move steps by steps rather than simple move so that your stitches work well.

Use broadcasts to organize your examples

```
when space key pressed
reset
broadcast turn squares and wait
```

Then you select a broadcast script from the pulldown menu and run it by pressing spacebar.

```
when I receive math square
repeat 4
  move 100 steps by 10 steps
  turn 360 / 4 degrees
```

```
when I receive simple dodecadon
repeat 12
  move 50 steps by 10 steps
  turn 360 / 12 degrees
```

Use some math called 'the total turtle trip where you turn through 360 degrees - to close a polygon or circle. Create a relationship between the number of times your repeat and the total turtle trip. You might need to adjust the length of the lines.

```
when I receive turn squares
repeat 5
  broadcast basic square and wait
  turn 360 / 5 degrees
```

```
when up arrow key pressed
reset
PolyGon 4 100
```

Combine broadcast scripts to create a more complex pattern. Create your own blocks from the Variables menu. Note that PolyGon needs two inputs!

## Example 02 - Other Cool Stuff For Beginners to Consider

This example gives you some sample blocks to explore. Pull them from the menu along with a reset block and just play. Experiment with their inputs. Modify them. Make your own. And don't forget to explore other things that you can do in TurtleStitch!

PolyGon

```
+ PolyGon+ number + lengthOfSize +
repeat number
  move lengthOfSize steps by 10 steps
  turn 360 / number degrees
```

CurveLeft

```
+ CurveLeft+ turn + numberOfStitches + amountOfCurve +
repeat amountOfCurve
  move numberOfStitches steps by 10 steps
  turn turn degrees
```

CurveRight

```
+ CurveRight+ turn + numberOfStitches + amountOfCurve +
repeat amountOfCurve
  move numberOfStitches steps by 10 steps
  turn 15 degrees
```

RandomWalk

```
+ RandomWalk+
repeat until key space pressed?
  move pick random 10 to 20 steps in 10
  turn pick random -360 to 360 degrees
```