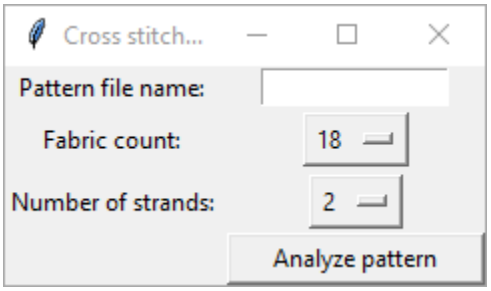
Thank you for downloading my Cross Stitch Helper! Here's how to get started with calculating the amount of thread you'll need to stitch your own custom patterns:

1. The first (and most important) step is to convert the pattern to a type of file that this program can read. This means it needs to be a .csv file, or a plain text file (.txt) of a comma-separated list, with a letter or symbol for each stitch in the pattern representing the color that stitch will be (each letter or symbol being, as the name suggests, separated by a comma).


This is an example of a pattern that this program can read, but I didn't create it by typing it manually. I used Google Sheets (Excel would also work), specifically the conditional formatting tools, to design the pattern itself.

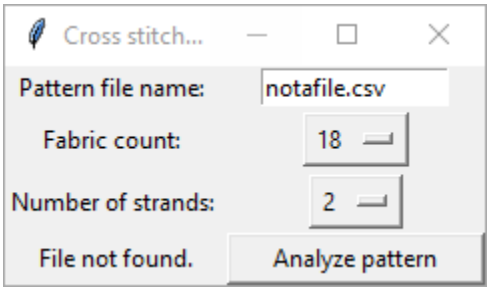
To do this, create a new spreadsheet and set the column widths to match the row heights, so that each cell is a square. Then set conditional formatting rules for the entire sheet–for the example pictured below, the rules were that all cells containing exactly "y" would have a yellow background, all cells containing exactly "r" would have a red background, and all cells containing exactly "b" would have a blue background. This allows you to visualize the pattern, while also encoding the information the program needs. Once you're satisfied with it, export it as a .csv, save it in the same folder where the Cross Stitch Helper file is located, and you're ready to go!

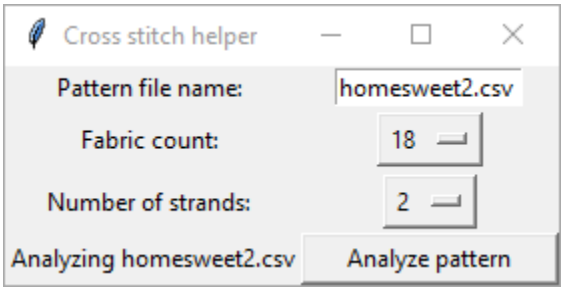
2. Next, run the Cross Stitch Helper program. Once it's installed, this is what you should see:



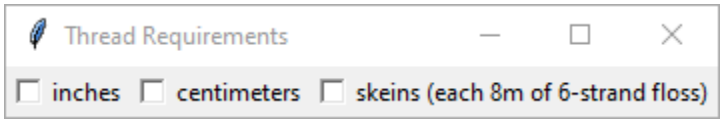

In the "Pattern file name:" box, type the name of the .csv or .txt file containing your pattern, including the file extension. Select the appropriate options from the two drop-down menus (the measurements will be different depending on whether you're stitching on 16-count aida or 12-count aida, for example, and whether you're stitching with 1, 2, or all 6 strands of thread held together), then click "Analyze pattern".

3. If the lower-left corner of the window says "File not found", it means the file name was entered incorrectly/incompletely, or that the file you entered is not in the same folder as the program file. Check the file location, name, and extension, and try again until the message changes from "File not found" to "Analyzing [file name]".



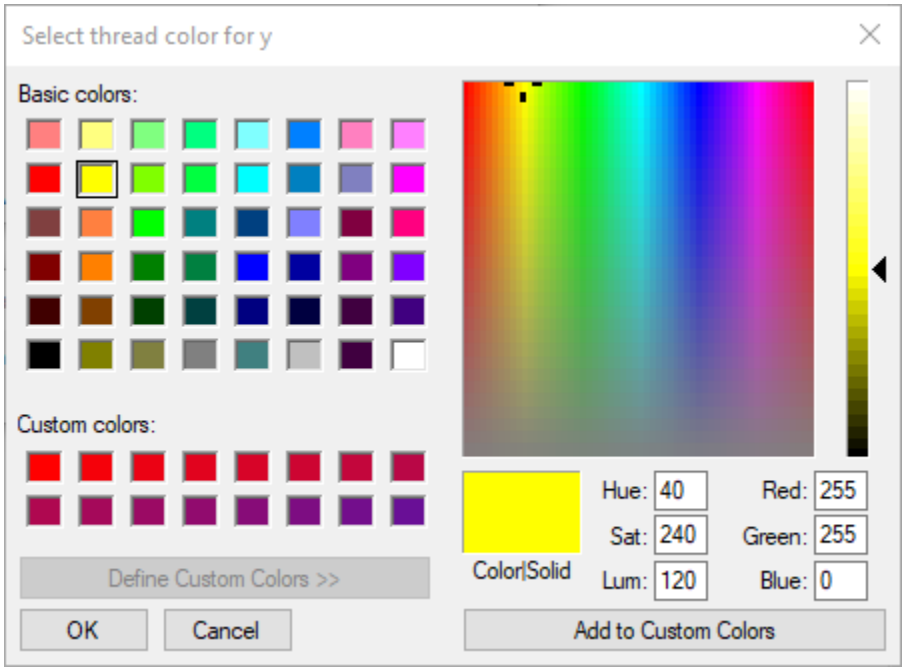



4. A second window should now pop up with three checkboxes available:

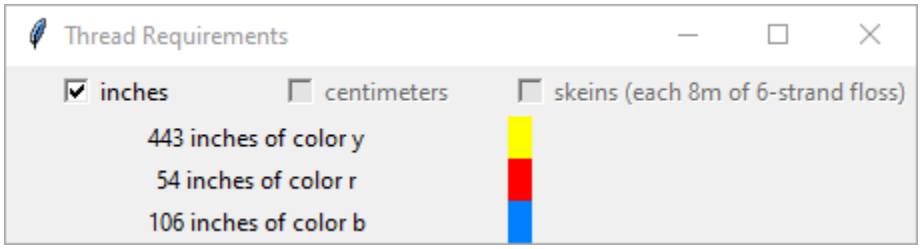



   Select the unit of measurement you want to see the results in.

5. Once you select a unit of measurement, a color picker window will pop up. The title of that window will be “Select thread color for [symbol]”, and once you choose the color you want to associate with that symbol and select “OK”, another color picker window will pop up, titled “Select thread color for [next symbol]”, and so on until you’ve selected a color for each symbol in the pattern file. In the example below, I’m selecting the color that goes with “y”, which I know will be yellow in my pattern, so I pick a shade of yellow.




6. Once you pick a color for each symbol, you’re done! You should see a list like this, depending on what unit of measurement you chose:



And now you have an estimation of how much total thread you'll need for your pattern! If you selected 2 or more strands, the total length of all thread involved will be included in the total. If you want to change the unit of measurement, you can deselect the checkbox you first chose and select one of the others instead–this will also give you a chance to change the colors you picked, if necessary.

**Please note that these totals are estimates**–this was made for a school project and I have not had time yet to rigorously test these calculations with actual thread and fabric. The program works by measuring the width and diagonal of a stitch based on the fabric count (18-count aida, for example, contains 18 stitches per inch, so each stitch is 1/18 inches wide and tall), then it doubles both of those numbers to estimate the amount of thread needed to make one stitch. From there, it counts the number of stitches in each color, multiplies each of those numbers by the amount of thread needed per stitch, and then adds an extra 15% on top of that to account for tying off and floating thread between sections.

In the future, I'm hoping to test these calculations by actually stitching these patterns–feel free to adjust the math if it is inaccurate to your experience/style of stitching. This program can handle any size of pattern, with as many different colors as you can fit onto your screen. *Happy stitching, and I hope this tool is helpful!*