Previously, the suggestion from

https://www.silhouetteschoolblog.com/2021/01/how-to-turn-off-silhouette-3mm-kraft.html

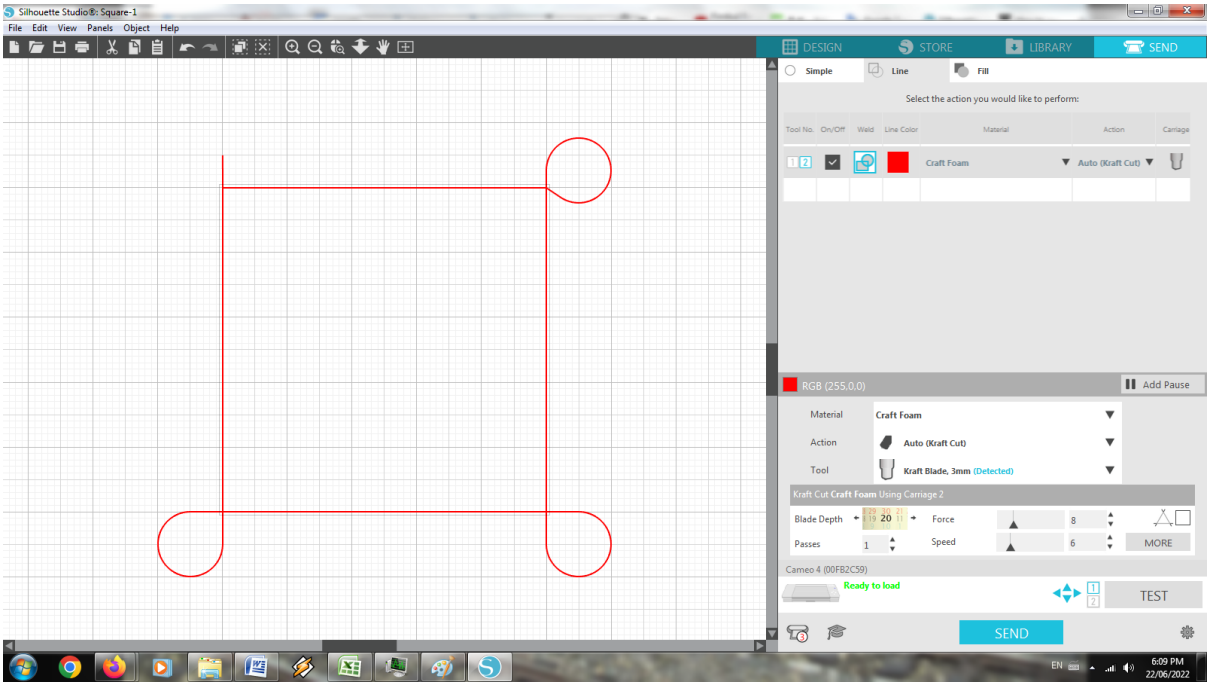
was to ***disable*** Smart Cuts to stop the kraft blade for getting stuck in them, particularly in dense materials. Recently, I came across the following article:

https://silhouette-secrets.com/2021/09/12/15-tips-for-the-silhouette-kraft-blades

Their advice is to ***enable*** Smart Cuts as these allow the blade to be turned in preparation for a cut, which made sense. Not turning the blade could well be the cause of cut inaccuracies I reported in my post of May 23. So, I decided to investigate Smart Cuts.

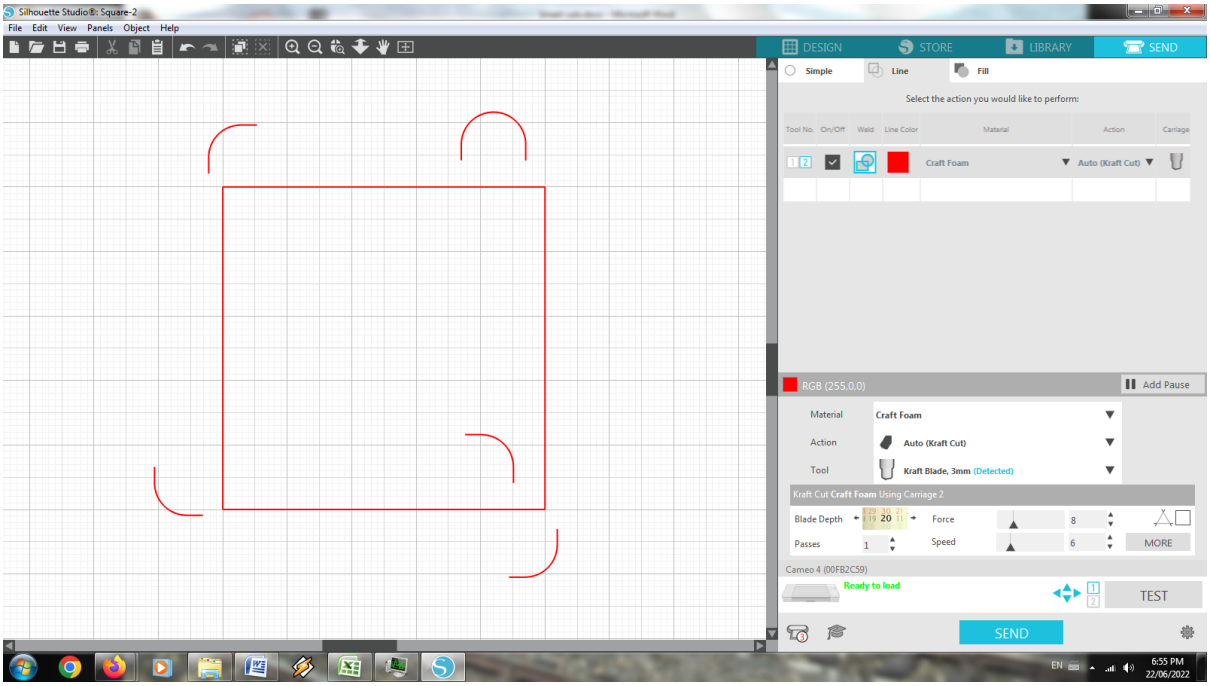
For the record, I'm using basic SS version 4.4.945ss.

Square 1: here's a 5cm square drawn as such.



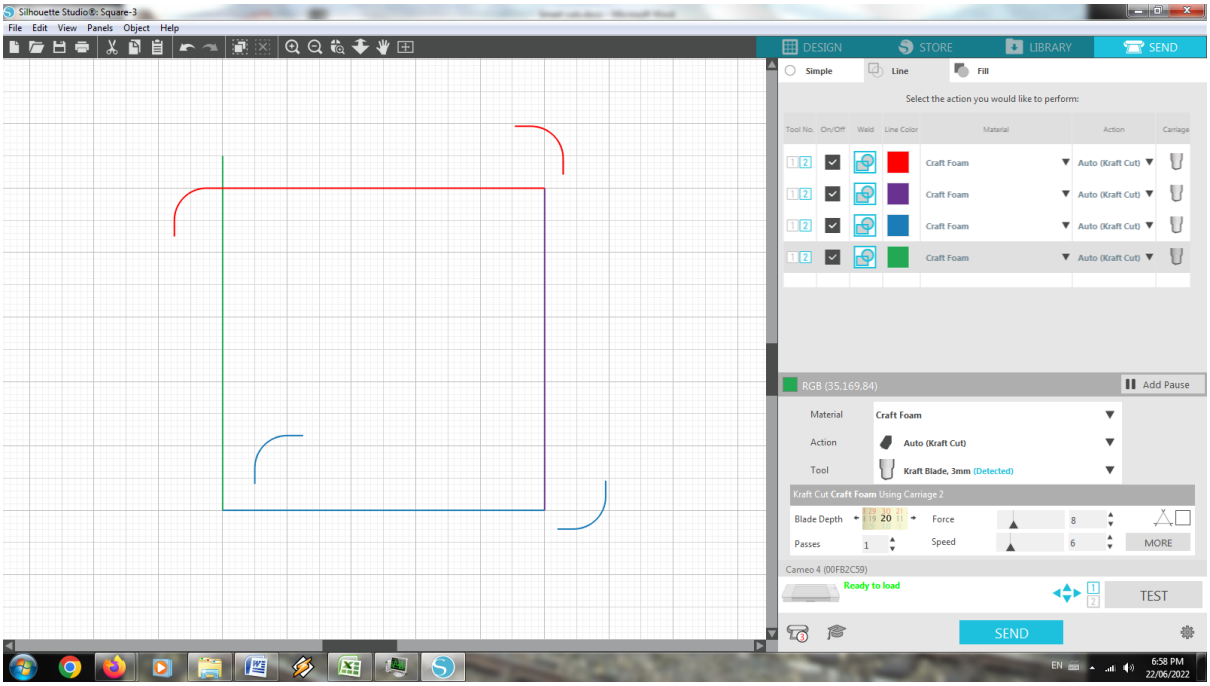
The cut order is unclear, but I guess top left-to-right, right bottom-to-top, bottom right-to-left, then left bottom-to-top. There is no Smart Cut before cutting the top, but I've seen before that these aren't shown on screen. I regard this as a bug, since it's important when positioning the design on the media to ensure that these additional cuts aren't off the edge of the media. I have no idea what the extension at the top-left is, nor why the Smart Cut at the top-right is different from the others.

Square 2: here's a 5cm square drawn as four lines: top, right, bottom then left.



Again, the cut order is unclear. There are five Smart Cuts, including a U-shape one which might suggests that the two vertical cuts are made in succession. There is also a Smart Cut in the middle of the design, which isn't very Smart at all.

Square 3: here's a 5cm square drawn as four lines as before, but each a different colour to try to figure out the cut order and which Smart Cut corresponds to which cut.



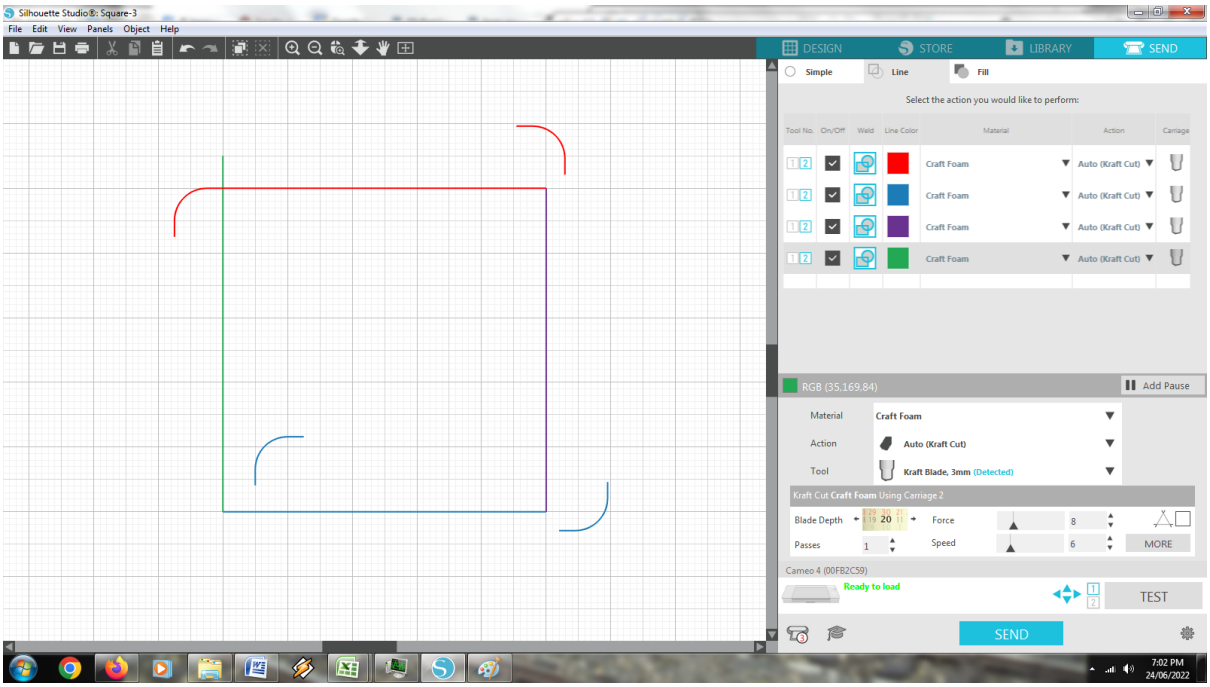
The Smart Cuts are different, even though these are the same four lines drawn in the same order!

There are no Smart Cuts associated with left or right, two each for the top and bottom, and, again, an unwelcome Smart Cut in the middle. The cut order should be defined by the order of the rows in

the top right of the screen: top (red), right (purple), bottom (blue) then left (green). I'd think that the cut order is as follows: left red Smart Cut, red line left-to-right, right red Smart Cut, purple line top-to-bottom, right blue Smart Cut, blue line right-to-left, left blue Smart Cut, then green line bottom-to-top. I've still have no idea about the green extension at the top left of the design. It may be an unnecessary overcut.

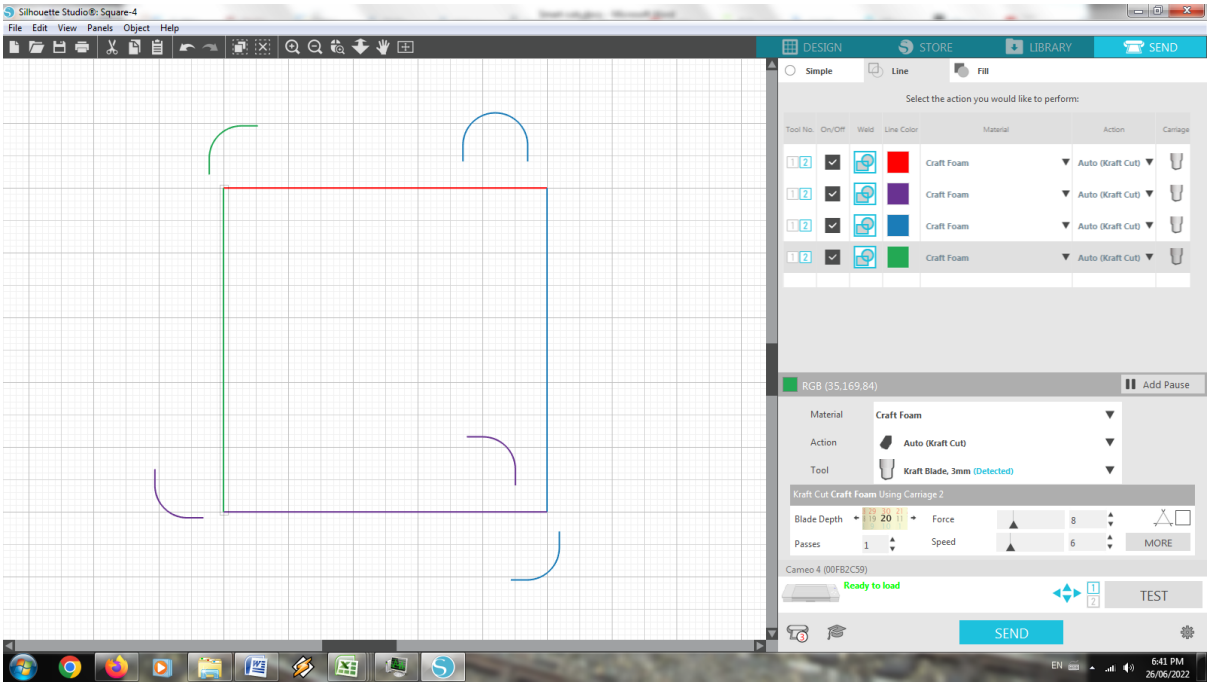
I'm thinking that the best approach would be to minimise the number of Smart Cuts, allowing the blade to be turned appropriately prior to each cut yet minimising the chance that the blade might get "stuck" in one of these additional cuts. For a simple design like mine, you really only need two Smart Cuts: one before cutting the horizontal lines and one before the vertical.

Changing the cut order by dragging the rows in the top-right of the screen may well change the cut order, but it has no effect on the Smart Cuts (see below).



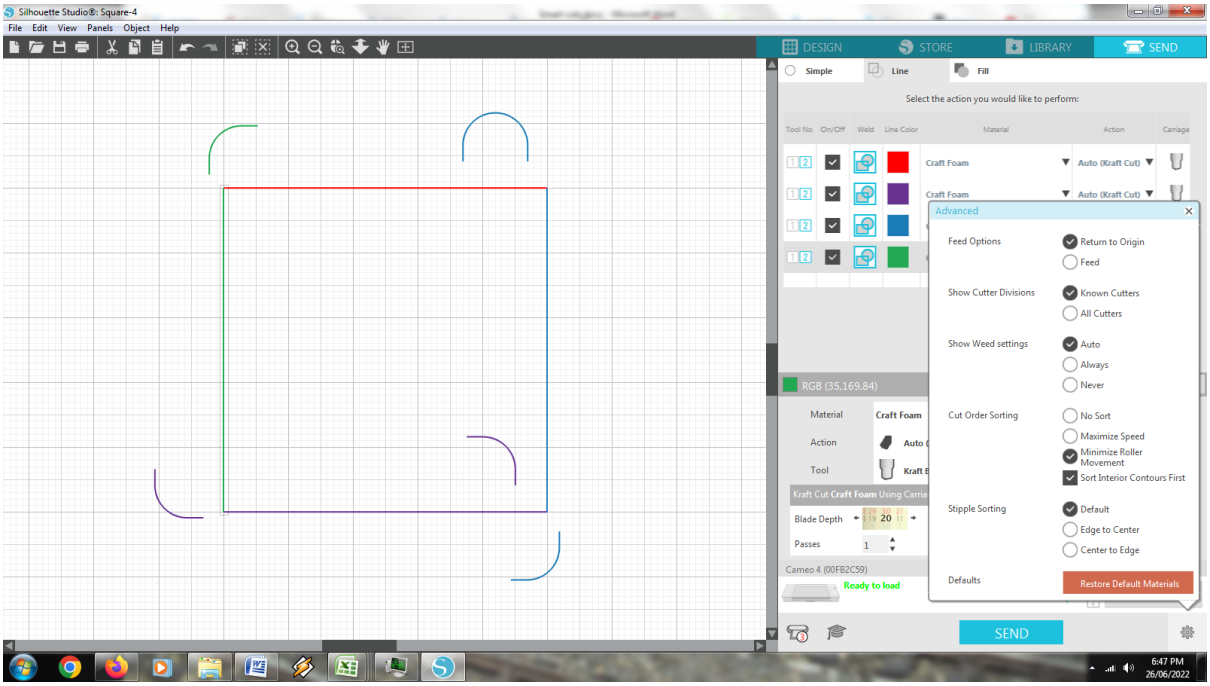
I also tried using "Bring Forward" on the blue line, with the same lack of affect to the Smart Cuts.

Square 4: here's a 5cm square drawn as four lines as before, but in the order top, bottom, right, left. The same colours have been used, so the bottom is now purple, right now blue.

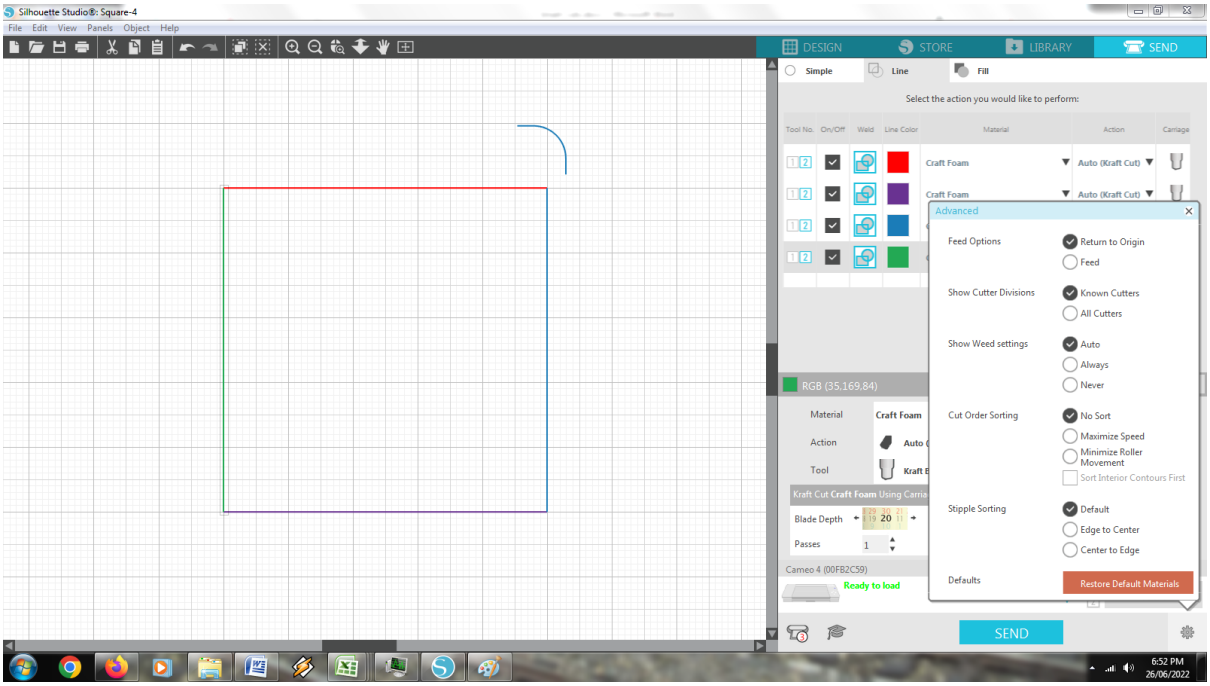


I still have no idea what is going on here, although the Smart Cuts are the same as those for **Square 2**, shown three images previously, so I suppose that's something.

About now, I discovered the Advanced Settings, accessed by clicking the cog-wheel icon at the bottom-right of the screen. Note that these Advanced Settings apply to the application, and therefore to ***all*** designs, not just the one you have open at the time.



It turns out that all along, I've been using the default Cut Order Sorting of "Minimize Roller Movement". I'm guessing this is the default because moving the media in and out is less accurate than moving the carriage left and right. Selecting "Maximize Speed" made no difference to the Smart Cuts, but selecting "No Sort" does.



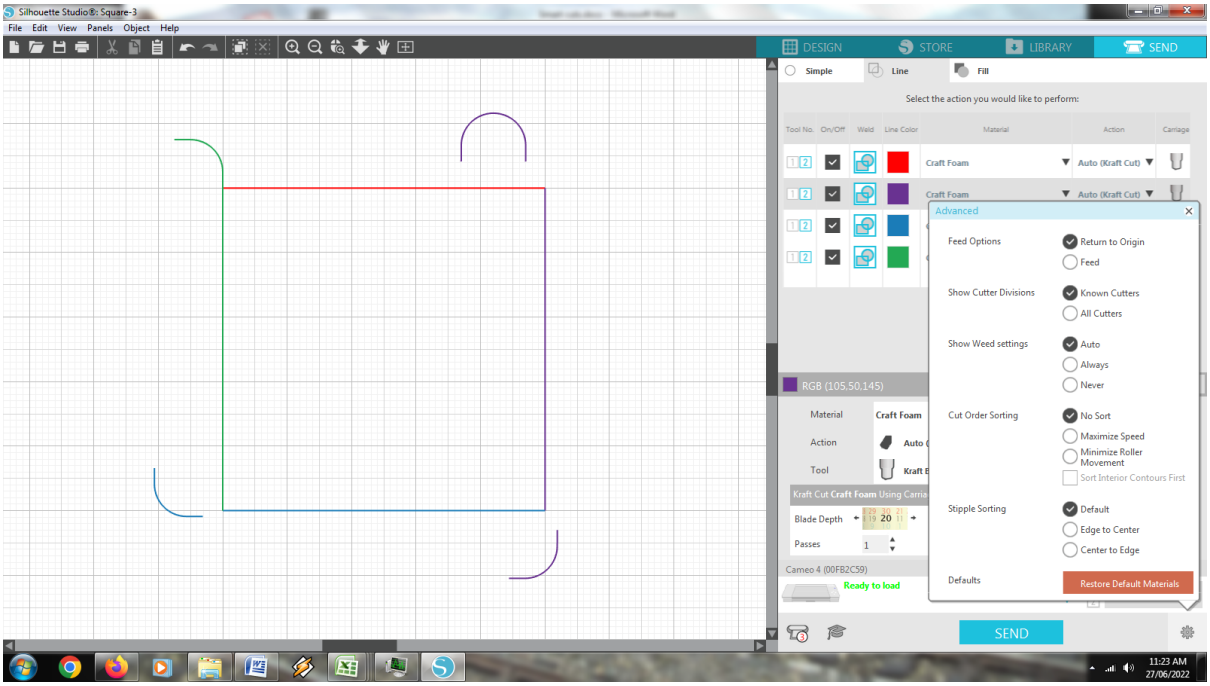
Only one Smart Cut!

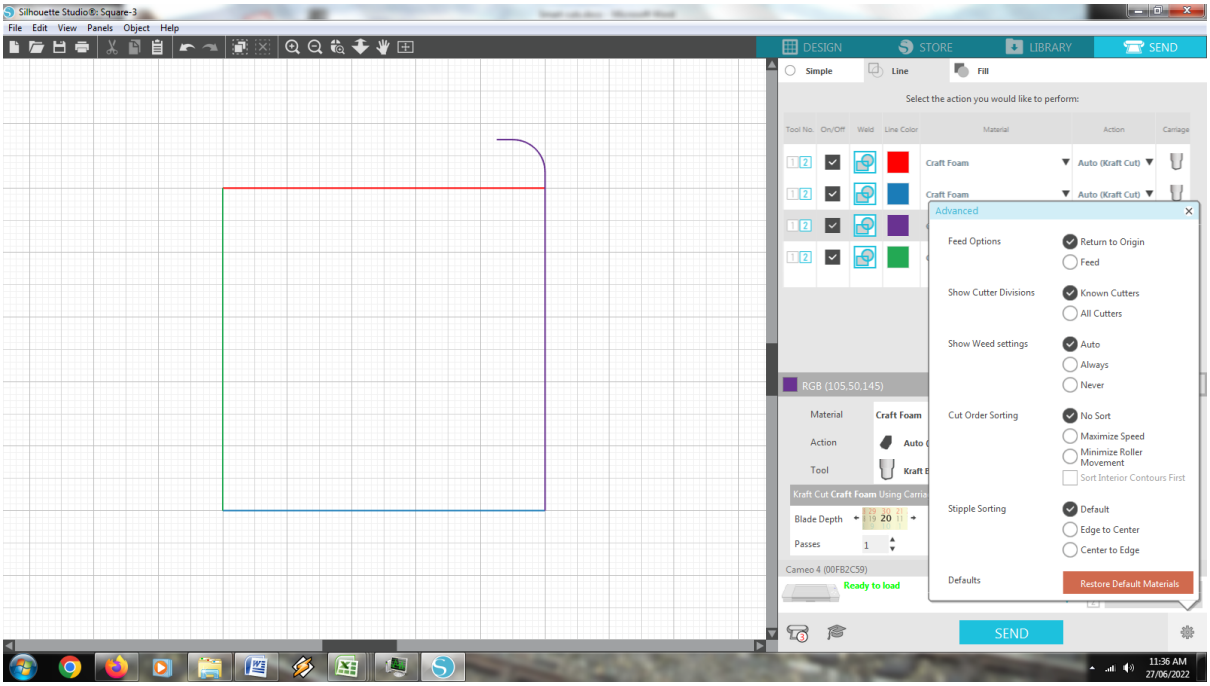
I think this makes sense if the initial alignment Smart Cut is not being shown on the screen. In “No Sort” mode, cuts are only made left-to-right or top-to-bottom. The cuts are made in the order specified by the rows in the top right part of the screen. Where there is ***more*** than one line with the same colour, the cuts are made in the ***reverse*** order of how they were drawn, i.e. the last line drawn in each colour is the first like cut.

Here, the cut order should be: red line left-to-right, purple line left-to-right, right blue Smart Cut, blue line top-to-bottom, then green line top-to-bottom.

This gives some hope as the designer does have some chance of controlling the Smart Cuts and the cut order. Basic SS gives you the ability to move lines forwards and backwards in order, but unfortunately provides no means to view the order, so you have to remember, and/or be careful as you create your design.

Back to **Square 3** and applying “No Sort”.



It's weird that there are ***two*** purple Smart Cuts. Perhaps the cut order might be red line left-to-right, bottom purple Smart Cut, top purple Smart Cut, purple line top-to-bottom, left blue Smart Cut, blue line left-to-right, left green Smart Cut, green line top-to-bottom.

I now found that changing the cut order by dragging the rows in the top right of the screen does work, but that the Smart Cuts are not updated, at least not on the screen. One way of forcing the Smart Cuts to update is to change the Cut Order Sorting to something different then back again. So, dragging the purple row down one place gives a similar result to **Square 4**, which makes sense, for a change.