5mm - 7/32" Customizable Stacking Parts Box with Drawer Options

Original design published by: Mutsuki 5/11/14
Customizable Parts Box by Mutsuki
Link: http://www.thingiverse.com/thing:327393

Remix by Tankueray 12/20/2015
Link: http://www.thingiverse.com/thing:1239522

This remix was originally because I wanted a bigger box and I wanted to use 5mm plywood (link below). I resized it and made it for my Grandfather as a Christmas gift. Then I decided that I needed one or two for different work areas and so I started tweaking it.

So far, the options are:

- Original Design (4 rows of drawers) resized for 5mm material
- 2 row drawer version
- 3 row drawer version
- 9 row drawer/bookshelf version (more info below)
- Double DIN drawers (the drawer takes up two rows instead of one)
- Dividers, spacers, and tool holder customizations (work in progress)

Notes:

Corel File:
It was made in CorelDraw X6. My laser software automatically assigns cut to red and scan to black. Black is by default inactive, so that's why the writing and optional parts are outlined in black (or blue). Blue is a color I use for cutting as well, usually for inner pieces so I can set them at a different speed or power, or cut them in a separate pass from the red parts. These parts are ganged (fit together) to optimize material use, but they ARE NOT WELDED! (I prefer to cut fitted parts in 2 passes for multiple reasons.) You can separate them or weld them as you like. I tried to order the objects so that the laser won't bounce all around the sheet while cutting (I haven't tested whether it worked or not yet).

Material:
I bought this 5mm plywood at Home Depot: http://www.homedepot.com/p/Unbranded-Underlayment-Common-7-32-in-x-4-ft-x-8-ft-Actual-0-196-in-x-48-in-x-96-in-431178/203183010
I like it a lot, Lowe's did not have anything as nice.
FYI - I also bought this: http://www.homedepot.com/p/Columbia-Forest-Products-1-4-in-x-4-ft-x-8-ft-PureBond-Birch-Plywood-165891/100092485
because it's formaldehyde free...well, forget it. The end product is nice, but it creates an insane amount of acrid, thick smoke that took 20 minutes each time for my exhaust to clear, and I was constantly having to clean my mirrors and lenses.

9 Drawer/Bookshelf:
I wanted to have some drawers, but also store my books and magazines, so this was an experiment. I haven't tried it yet though. It's about 20 inches tall and in theory, you can have 9 rows of drawers, or 3 rows of drawers and about 12 inches of book room, enough for a few 3 ring binders.

Problems:
After designing the bookshelf, I realized that the unit is only about 7" deep, which will not hold a 3-ring binder. So I went about designing a deeper unit that's about 10" deep (which still won't work for binders, do'h!) But it will work for most books and you can also use it as a file tray if you leave a row of drawers out. (The deeper version is published separately.)

Because the design is larger than the original, you can't really put the largest drawer on the bottom because it bears all the weight. It really needs the 4 small drawers with their dividers to give it support, but I've found that any of the configurations with at least one divider in there works fine (again, I haven't tried the 9 drawer unit yet though).

Body

4 drawers
Outer Dimensions:
9.027” tall
12.824“ wide
7.395” deep

size S

size S

size S

size S

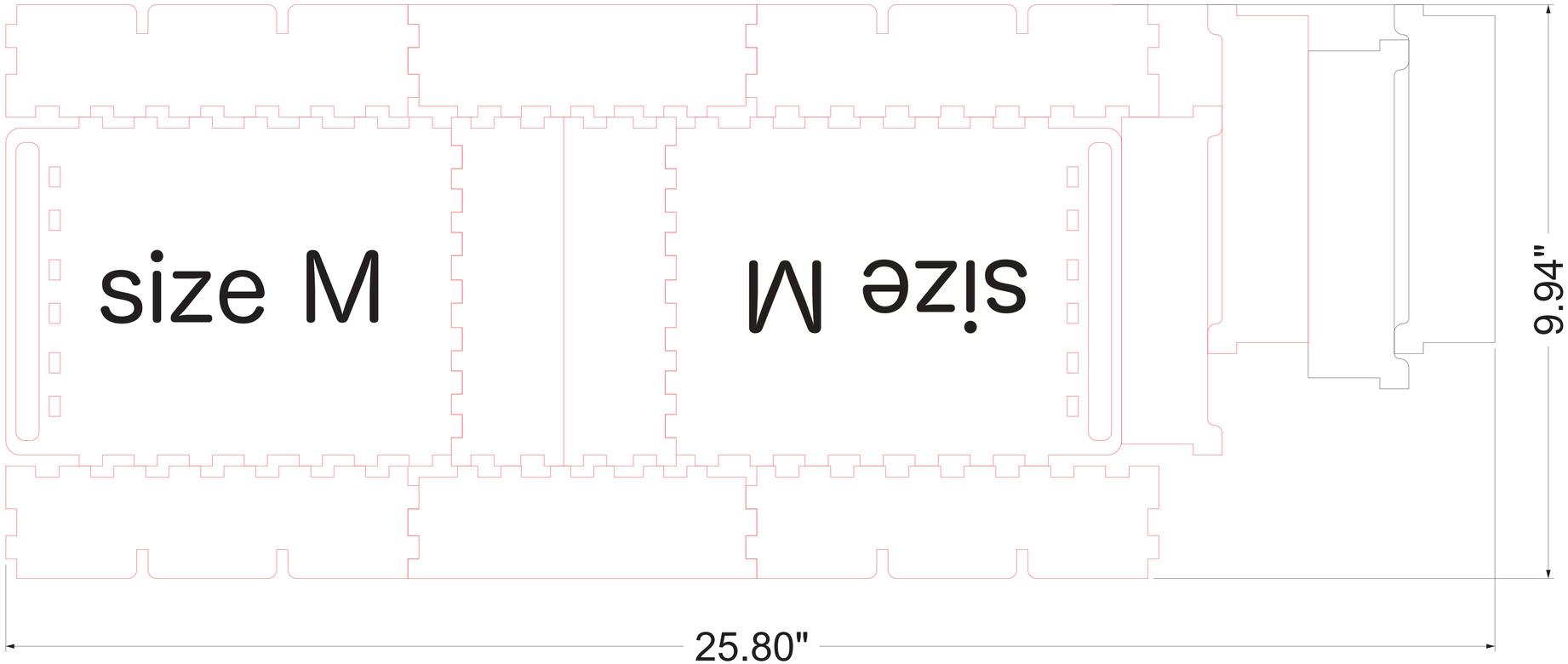
size S

12.80"

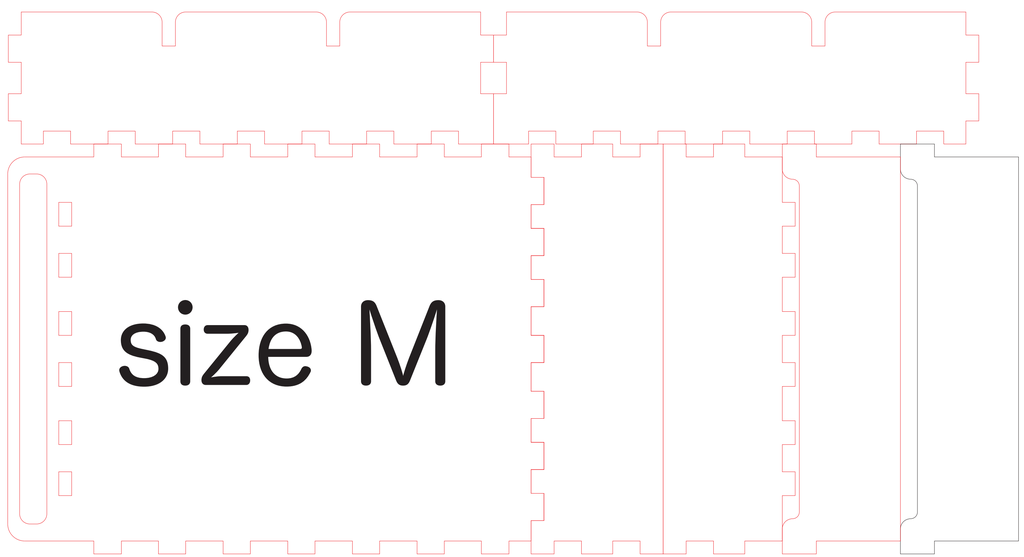
26.49"

5 Small Drawers and
3 extra drawer
dividers.

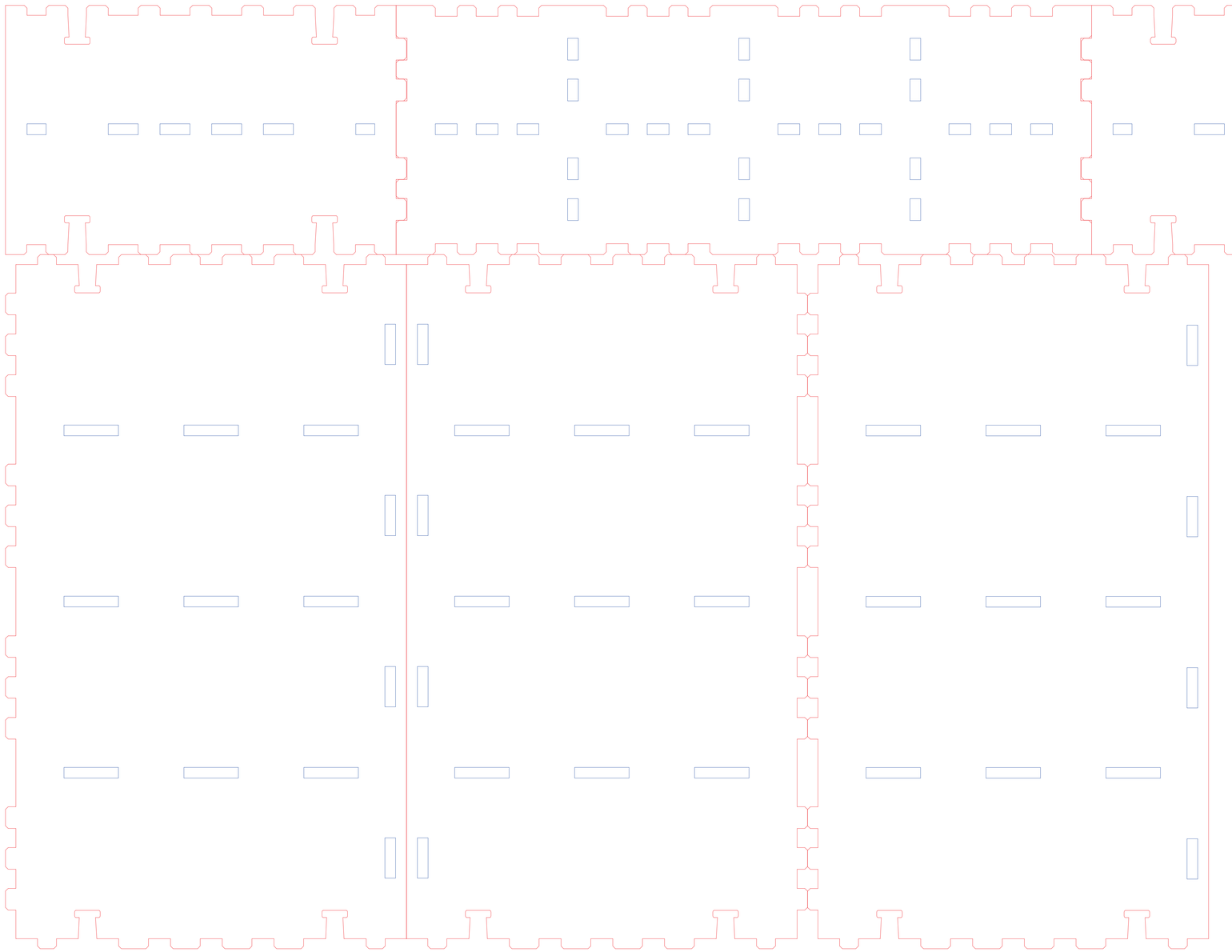
size S



2 Medium Drawers and 2 extra drawer dividers.



size LL
size L
14.93"
25.46"

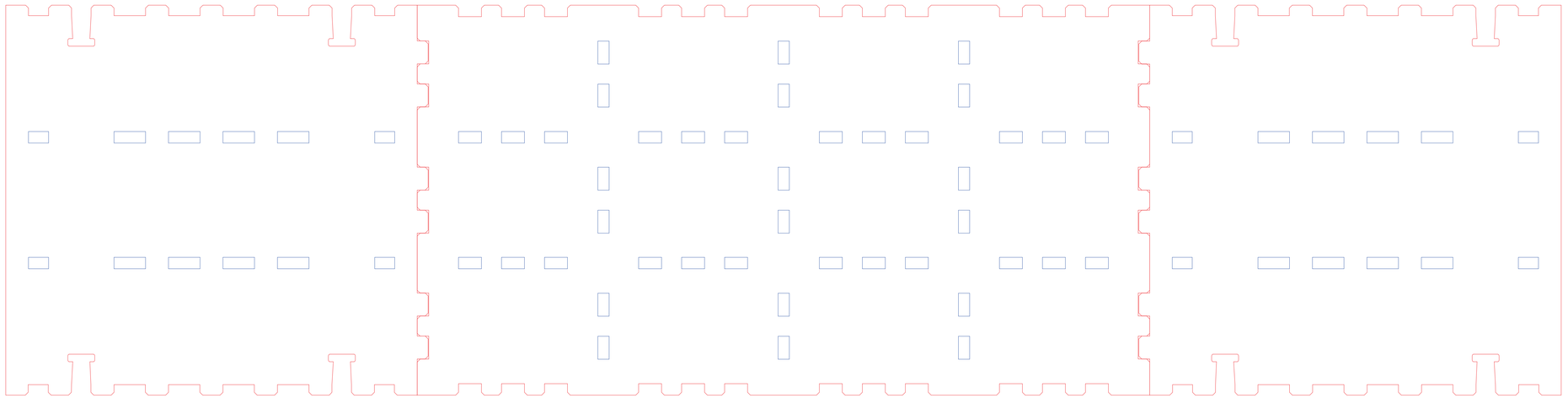


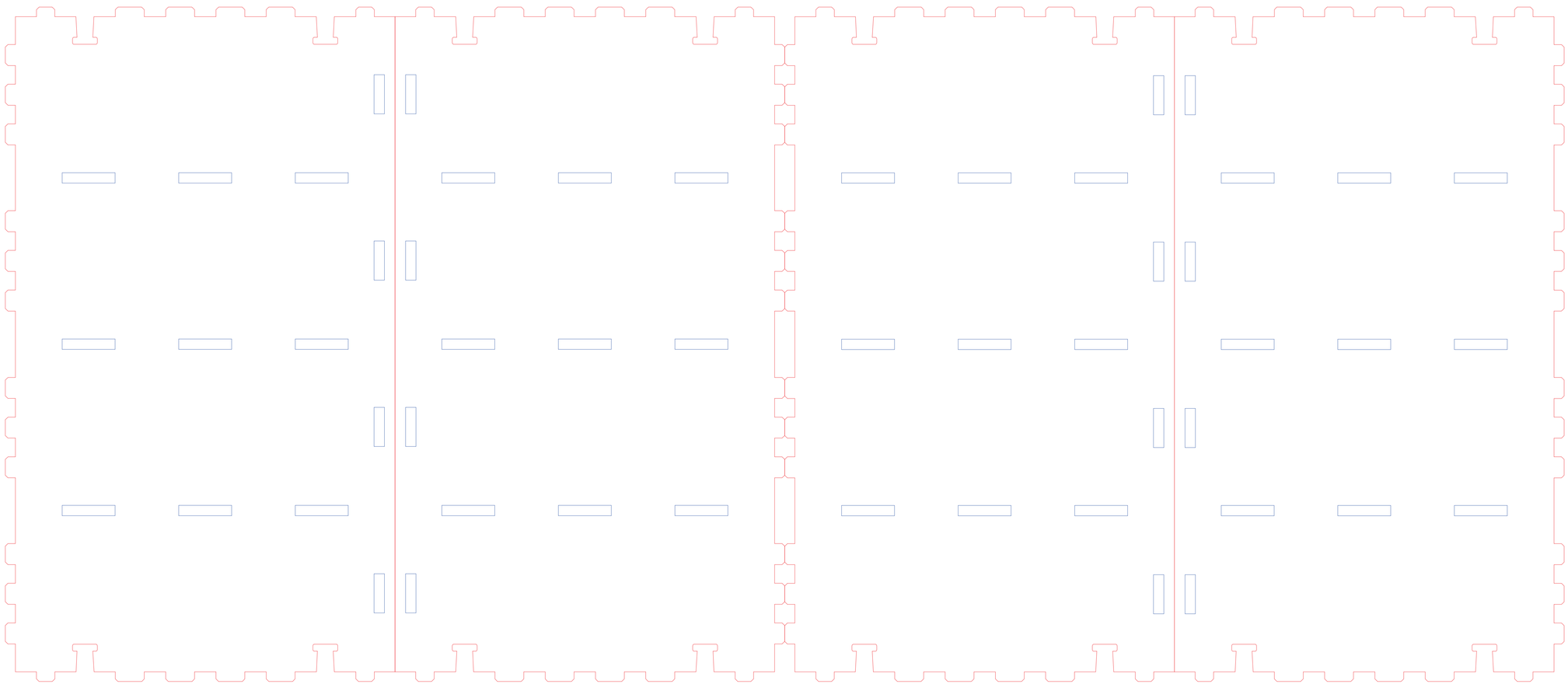
Body

2 drawers tall
OD Approx:
4.595” tall
12.824“ wide
7.395” deep

Body

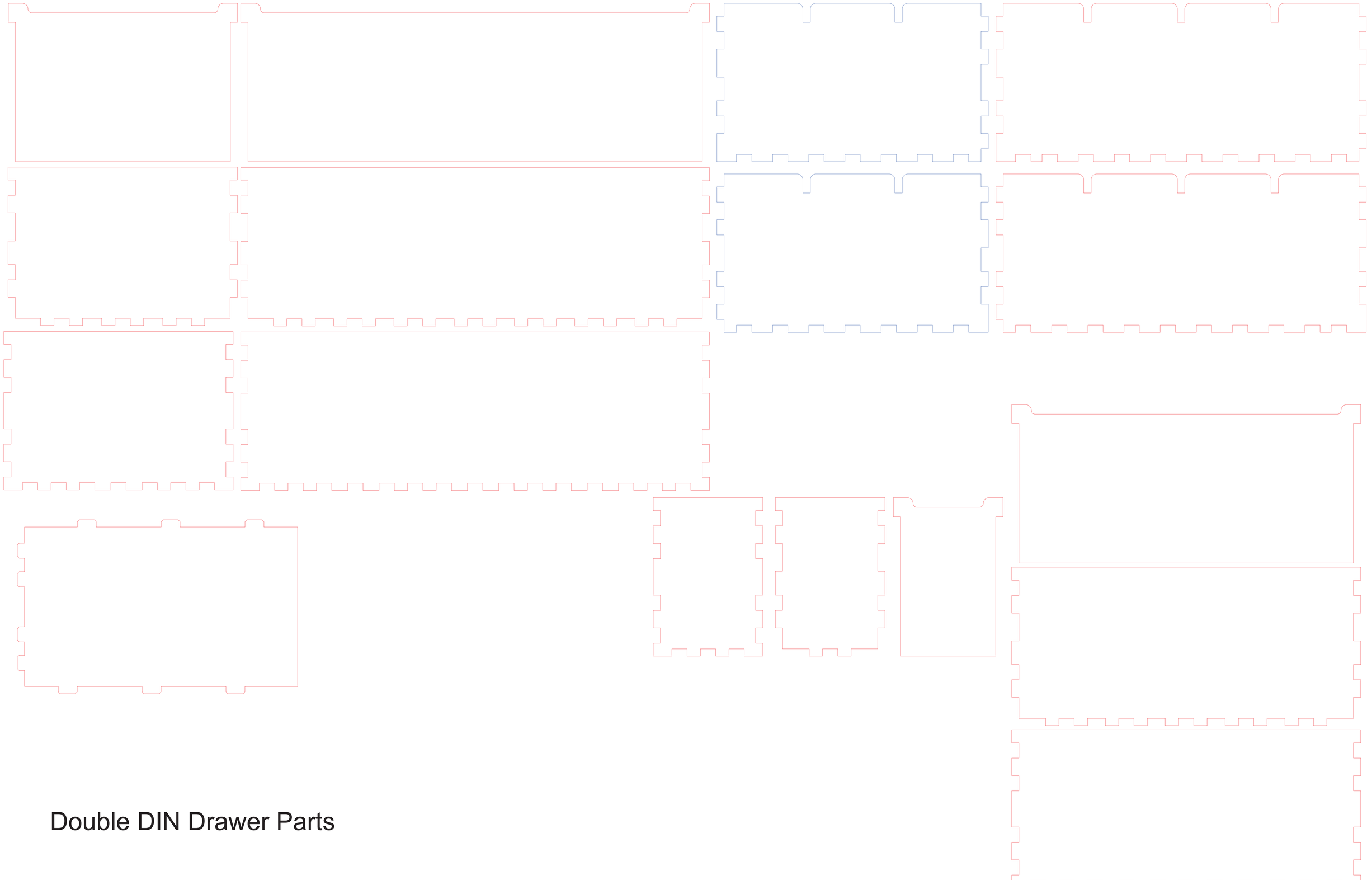
3 drawers tall
6.822” tall
12.824“ wide



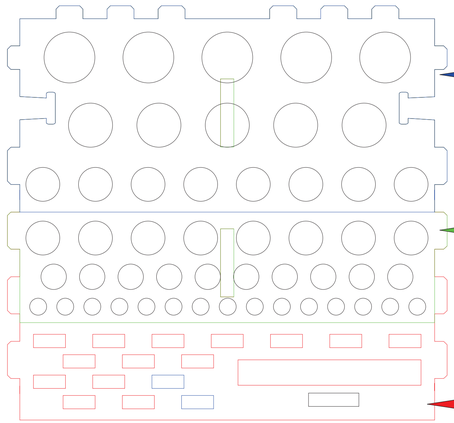


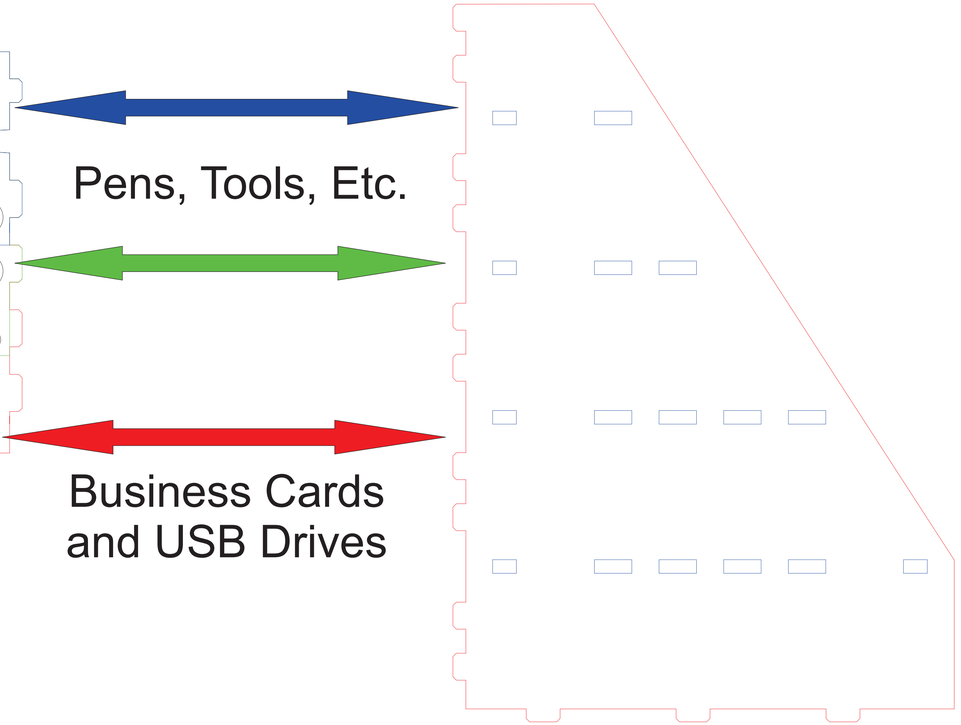
9 drawers tall
20.054” tall
12.824“ wide

OR
3 drawers tall with Bookshelf
(illustrated here - Just
change the holes to a color
that doesn’t cut.)



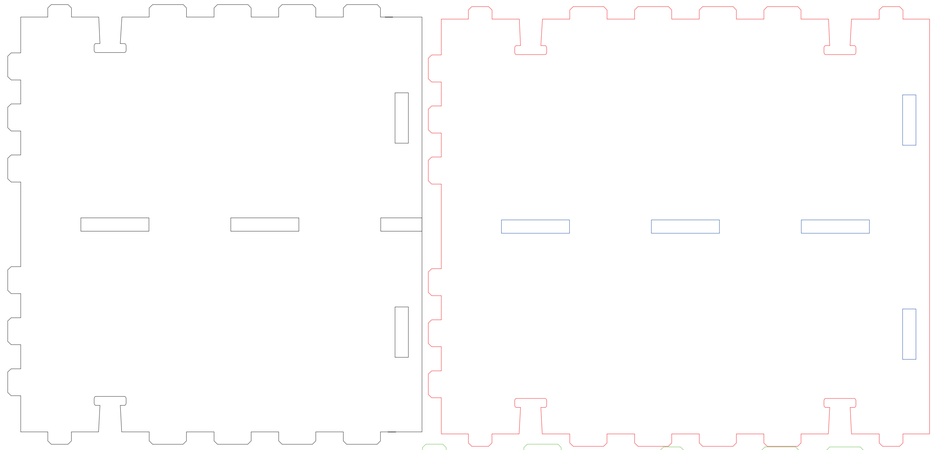
Double DIN Drawer Parts

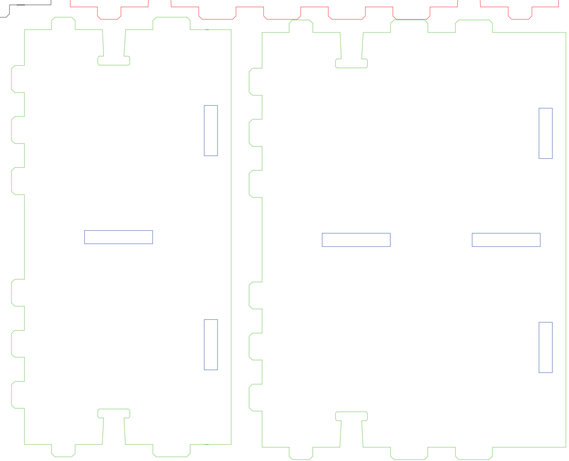


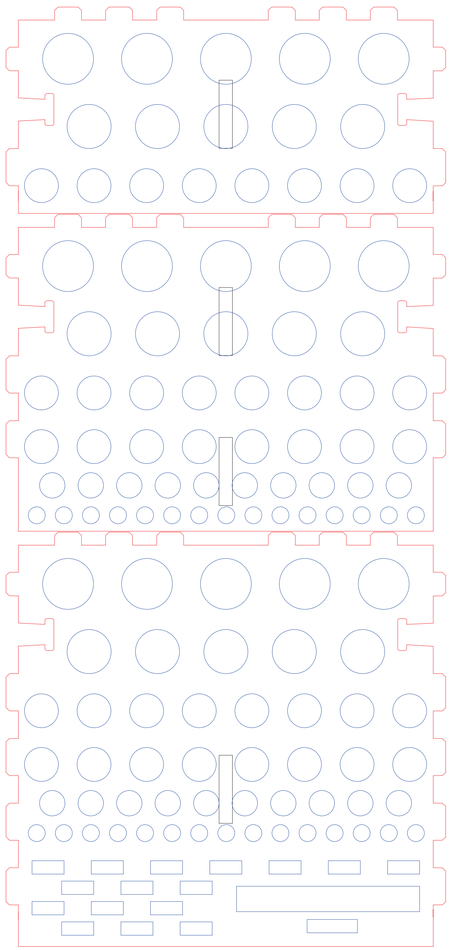


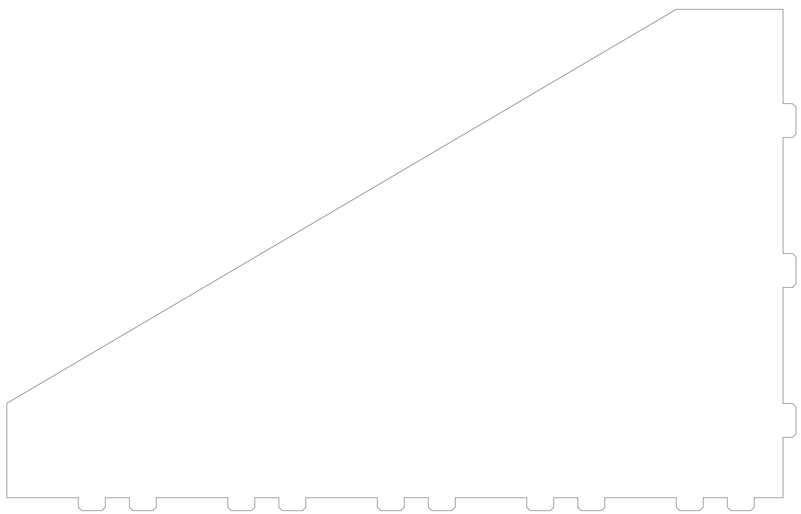
Pens, Tools, Etc.

Business Cards
and USB Drives

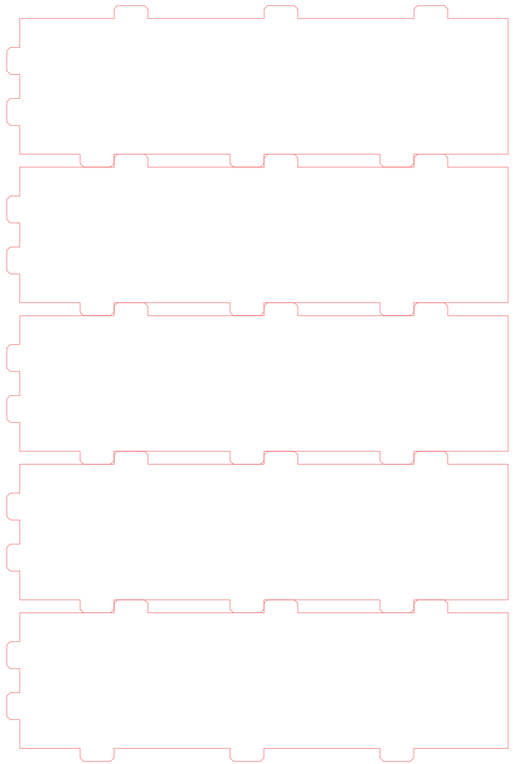


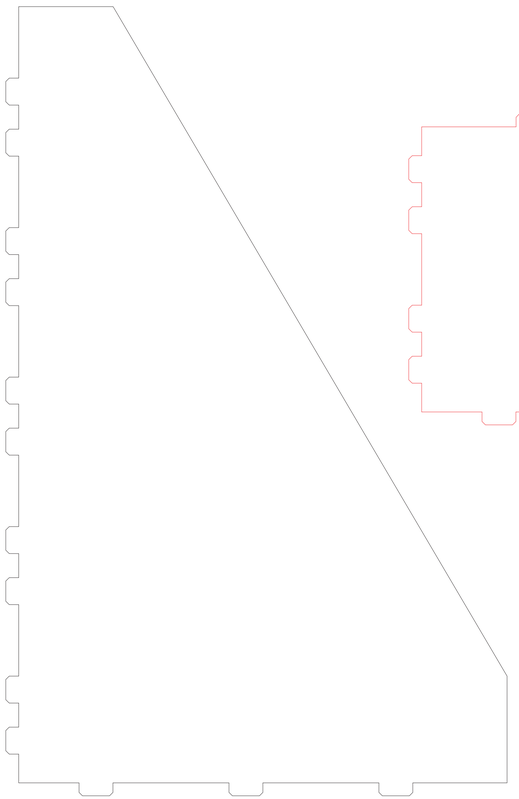


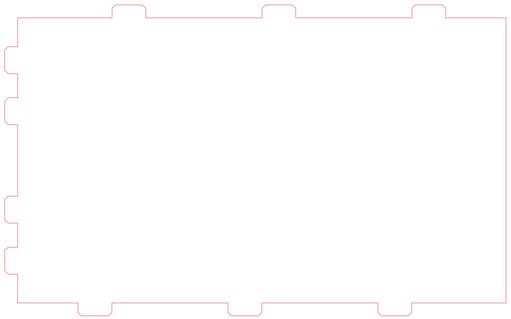


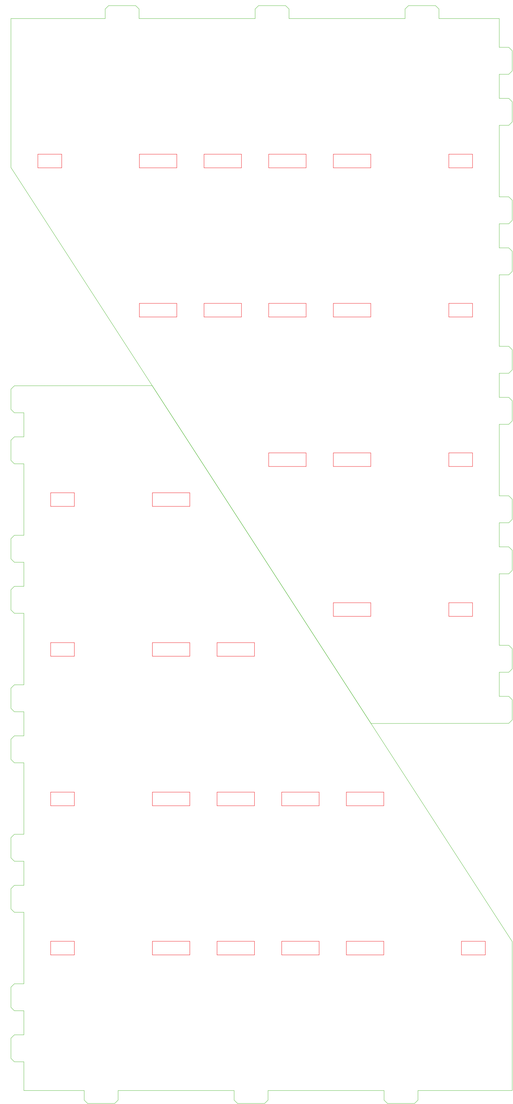


Experimental Parts

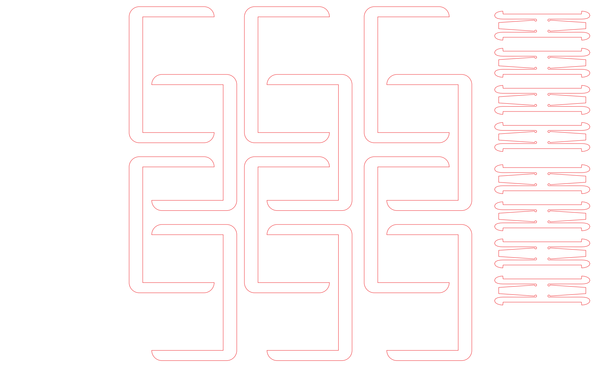




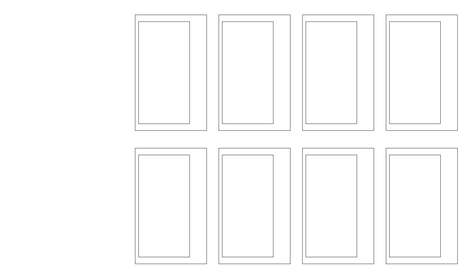




Drawer Divider Parts



Label



Stopper