

# Pickle Project: Variations on the Tool Roll

Please note: These projects are provided for your personal non-commercial use. Please do not sell or distribute without permission. But do feel free to contact me at [store@dillpicklegear.com](mailto:store@dillpicklegear.com) with any questions or comments or even just for help with a project!

And if you enjoy this tutorial, please consider making a donation to [Days for Girls](http://www.daysforgirls.org/) ([www.daysforgirls.org/](http://www.daysforgirls.org/)). They are an organization that harnesses the enthusiasm and skills of home sewing volunteers to make washable, re-usable sanitary pads for women and girls in developing countries who otherwise do not have access to feminine products, and often lose several days of school or work per month due to stigmas surrounding periods and the lack of available products to let them get on with their lives during that time. If you have ever wondered, “gee it must be inconvenient to get your period while on a long brevet”, you can imagine what an important but hidden cause this is for millions of women.

Thanks, and have fun!



Tool rolls are a handy way to keep the tools you need ready to hand, organized, and contained. There are endless variations on this simple item, and they are pretty straightforward to make.

And they're good for more than just cycling: The same basic concept can be used to carry drum sticks, knitting needles, knives, a set of travel silverware, toiletries, art supplies like pencils and brushes, all kinds of stuff. It's a blank slate that you can fill with whatever slots and pockets you need, then roll up and carry with you.



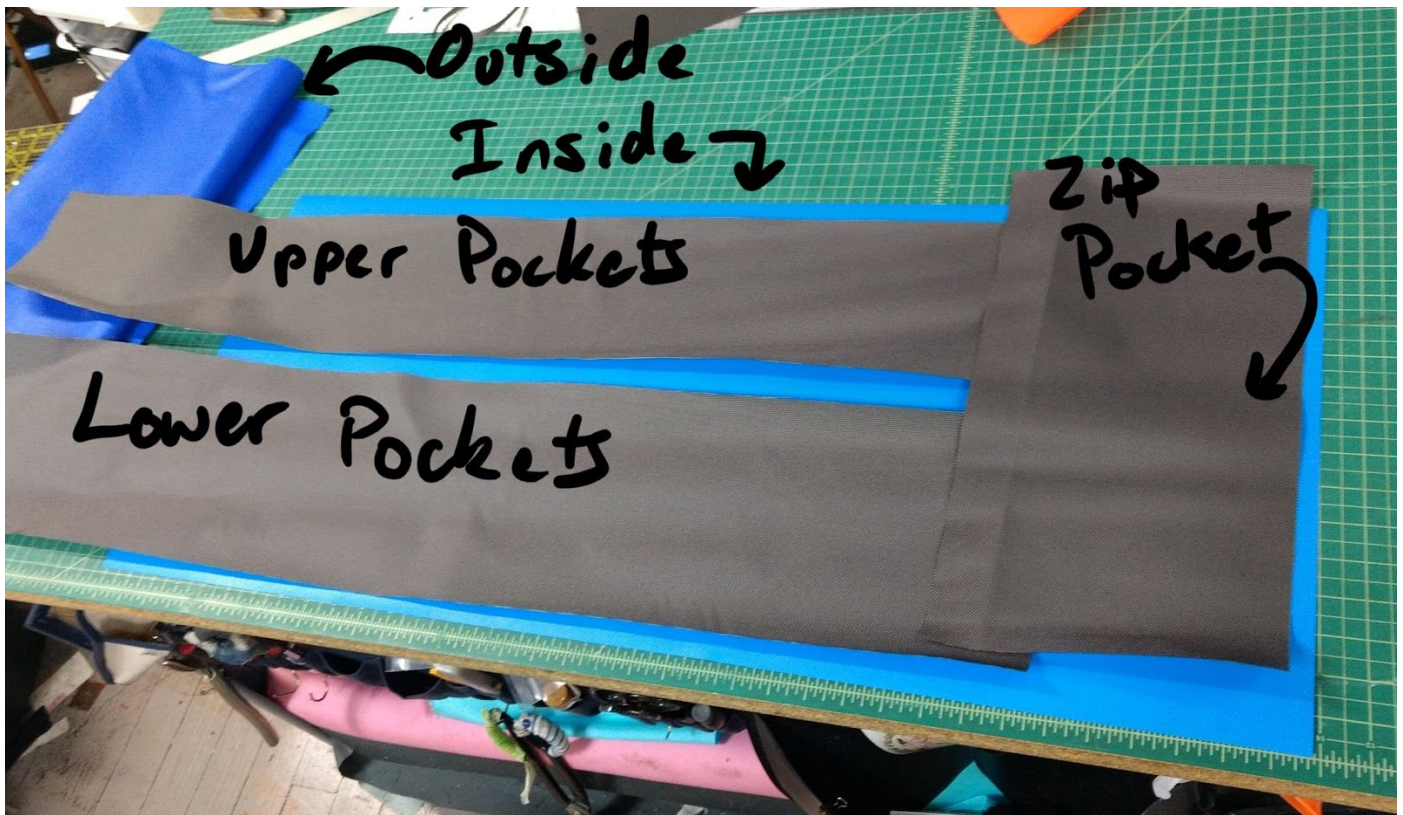
These can be good projects for less experienced sew-ers because they generally consist mainly of rectangles and require mostly straight lines of stitching so they're good practice. And because they aren't generally assembled as complex 3-D shapes, they also generally don't require sewing over accumulations of thick, bulky seams that home sewing machines often have trouble with if the materials are on the heavy side. Even a standard home sewing machine can produce a sturdy tool roll out of heavy duty materials, as long as you use strong thread and reinforce the stitching, and give a little thought to how you handle raw edges.

This tutorial does tell you the dimensions of all the pieces I cut, so you can duplicate the rolls I made. But really I would encourage you to use it as a guide to designing your own roll to meet your own needs. You don't have to be Coco Chanel to do this! If you can make a rectangle, you can design your own tool roll!

However, you can also duplicate the ones I made. The **drawings** I created for each are appended at high resolution at the end of this document.



This picture shows the main parts of the big tool roll. See, just rectangles:



### The basics:

Boiled down to essentials, tool rolls typically have the following elements:

- A back panel that is what rolls up and forms the outside
- Slots inside that can hold oblong implements
- A flap that closes over the contents to keep things from falling out
- Some way of staying rolled up when you want it to

Additional features could include other types of pockets, handles, straps, additional flaps, and so forth.

As examples, I have made three variations: A large tool roll that holds everything but the kitchen sink and can even double as workshop storage by hanging on the wall; a small tool roll that holds just the essentials for basic roadside repairs and can strap under your saddle; and a storage case for knitting needles and accessories. Each of these has its own particular considerations and features that illustrate some things you might want to think about when designing your own roll.

## Tools:

You need to be able to measure and cut accurate rectangles with straight lines. Quilting rulers, square rulers, even a roofing square, are all good for this. If all else fails, you can resort to things like books, folders, regular printer paper, etc.

If you have a large enough cutting mat and a good square or flat ruler, it's pretty quick and easy to cut accurate rectangles with a rotary cutter. If not, it's well worth the time to mark rectangles onto your fabric with a pencil or chalk and cut them meticulously with scissors. Good quality sewing really is all about accurate cutting, do not skimp on this!

Depending on your fabric, an iron may be helpful. If applicable, iron your fabric very well before you cut, otherwise it's very difficult to be accurate.

You probably also want a sewing machine, although you can get by without if you are patient.

## Materials:

It's important to consider how the roll will be used when choosing materials. If the contents will be heavy, you will want a material that can hold up to the weight and also take the strain from the straps that will carry it and the stitching for the pockets and slots. If the contents are sharp, it's a good idea to use materials that will resist wear and tear. You might want to use padding of some sort if the contents are fragile. You might also want to consider issues like snagging, poking through, etc.

Your choice of thread is also important. For a tool roll that will hold heavy items, you want to use the strongest/heaviest thread your machine can manage. If your machine doesn't do well threaded with upholstery thread, you can get by with regular sewing thread. You'll just have to do a bunch of extra reinforcing and back tacking. But even in that case, spring for the good quality stuff, not the bargain bin. It really does make a difference in how strong it is.

You'll also need to think about how you will finish the raw edges. There are any number of things you can use, but grosgrain ribbon is readily available and easy to fold in half and sew over a raw edge. Center-fold bias tape is another option, as long as you anticipate relatively low abrasion. You can also cut strips of fabric and make your own binding if you are so inclined.

And last, decide how the roll will stay closed and how it might be carried. Snaps, webbing, velcro, handles, magnets, buttons, and latches are all possible methods.

For the large tool roll, I used 18-oz vinyl-coated polyester (tarp material, essentially) for the main panel on the inside; ballistics nylon for the pockets; and Cordura nylon canvas for the outside. The contrast-colored stripes on the outside are partly for fun and decoration, but they also provide an additional layer of fabric where the carrying straps on the outside are sewn on, which reduces the likelihood of tearing over time.



This image shows the position of the box tacks for the straps. The background color is blue, which is the main panel. The other colors are sewn on top of it, and function as reinforcement as well as decoration:



I used nylon webbing with side-release buckles for the straps, with a webbing handle plus D-rings that could be used to attach a shoulder strap if needed.

For the small under-seat roll, I used Cordura for the outside and a smooth nylon oxford for the lining. Using a lining makes it look nicer and reinforces the stitching a bit, but in a simple roll like this, you could totally get away with using just one layer of fabric and skipping the lining entirely, particularly with heavier or sturdier fabrics. The small roll just has one strap with a buckle, which is also strapped around the saddle rails to carry it on the bike.

Both of these have edges bound with sturdy grosgrain.

For the knitting case, I used cotton canvas. The blue is heavier than the white, but both are quite fine and should stop knitting needles from poking through. To be honest, both fabrics are heavier than necessary for this application, but they were close to hand. This construction would be easier with a lighter-weight fabric such as quilting cotton. You could always use a stiffer material in strategic places or use a thick interfacing to help the final product keep its shape. It's held shut with a magnetic snap, and all the raw edges are turned inside so binding material isn't needed.

As always, I encourage you to experiment with recycled or upcycled materials if these strike your fancy. There's more on this at the end of this tutorial.

## Procedure:

The first step to designing your roll is to lay out the items you want to store in it and take some measurements. If you're making one as a gift for someone and you don't have the actual contents on hand, you can substitute things that are around the same size. If all else fails, a little time on Google or browsing product pages can tell you common dimensions for common items.

For the first example, I decided to make a **large tool roll** that we can hang on the wall in our shop or roll up to bring when we do mechanical support for an event. This one is probably overkill, but it's easier to leave it half empty than to shove more stuff into a roll that's too small. I grabbed an admittedly indiscriminate assemblage of tools to start with, and laid them out on the table:



I've laid things out in rows, with a bit of space around them so that there's room for the pocket material to be sewn down in between. There will be two rows of pockets, one for the longer items and another above for smaller things. The pile of stuff on the end will be a zippered pocket for things that don't fit as conveniently into slot-shaped pockets. I'm figuring on two cone wrenches per pocket, since cone wrenches are often used in pairs.

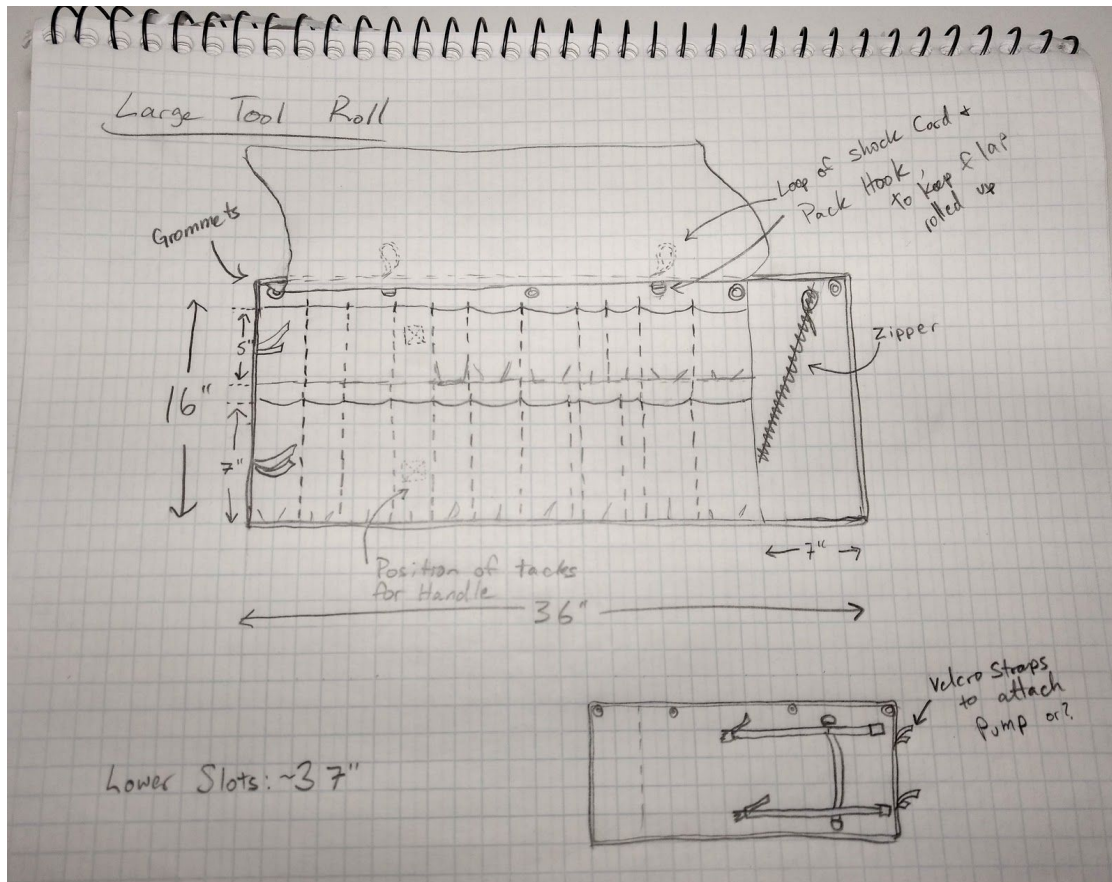
Below is a drawing of what I'm aiming for (full-page scans of these drawings are attached at the end of the document). I've marked the **overall height and width** as determined by measuring the space the tools took up when I laid them all out. I've drawn in the features I want, which include a zip-up pocket with the zipper on a diagonal, which will make it easier to get at stuff without it falling out if the roll is hanging up.

I've marked the **heights of each row of pockets**, which I decided on by measuring the heights of the tools in question. One note about this: I made these pockets on the deeper side. It's probably not necessary for them to be that deep, and it makes it harder to find smaller things or see what size wrench is which. But it makes it harder for stuff to fall out even if you shake the rolled up roll upside down or something. It's a judgement call. Another strategy for the heights of the pockets, if you can't decide what they should be, is to make the edge of the pockets on a diagonal so that they are all different heights.

I've also sketched in **how many pockets** I want, and roughly how they'll be divided up. Most are similar in size, but there are a couple of skinny ones that screwdrivers can stick into; a couple of shallow wide ones in the upper row for small things; and a couple of places where the ones in the upper row are staggered from the lower row.



I've also marked the **flap that keeps stuff from falling out**, and other features I don't want to forget such as grommets for hanging, extra velcro straps for attaching a small pump, the carrying straps and handle (they're drawn onto the outside, but I also marked which part of the inside I want them to line up with), and a combination of shock cord loops and pack hooks that will hold that flap rolled up out of the way when the roll is hanging on the wall.



The main body of the roll will be made from a rectangle at the overall dimensions marked, with enough extra for seam allowances. In this case, that's 36" wide and 16" high. I cut two rectangles that size, one out of vinyl tarp to go on the inside and one out of bright blue Cordura to go on the outside.

The piece that will make the zippered pocket is the same height - 16". Its width is the 7" width marked, plus some extra so that the side of the pocket can turn under and get a little extra depth. So call it 8.5".

I've decided that the two rows of pockets will be 5" high and 7" high respectively. I also want  $\frac{1}{2}$ " for seam allowance at the bottom of each row, and  $\sim \frac{1}{2}$ " to hem the top edge, so the pieces get cut to 6" and 8" (if I wanted to bind the top edge instead, I would not add seam allowance for the hem and they'd be cut to  $5\frac{1}{2}$ " and  $7\frac{1}{2}$ ").

But I also need to know how wide those long strips for the main pockets need to be. They definitely need to be wider than the 29"-wide area that they will be sewn to, because the tools are bulky. If I made the pockets the same width as the spaces on the backing, none of the stuff would fit.

So I measured how much extra slack I need by running a tape measure loosely over each item and down to the table in between, like this:



Doing that down the whole line:



Leaving plenty of slack, I ended up with 37". I'll cut it a little over that, because I'll have a chance to trim off any excess later. The upper row of pockets can be a little less because those pockets can be a bit smaller, but I'll still cut it the same length at trim as needed so I can be sure not to run out.



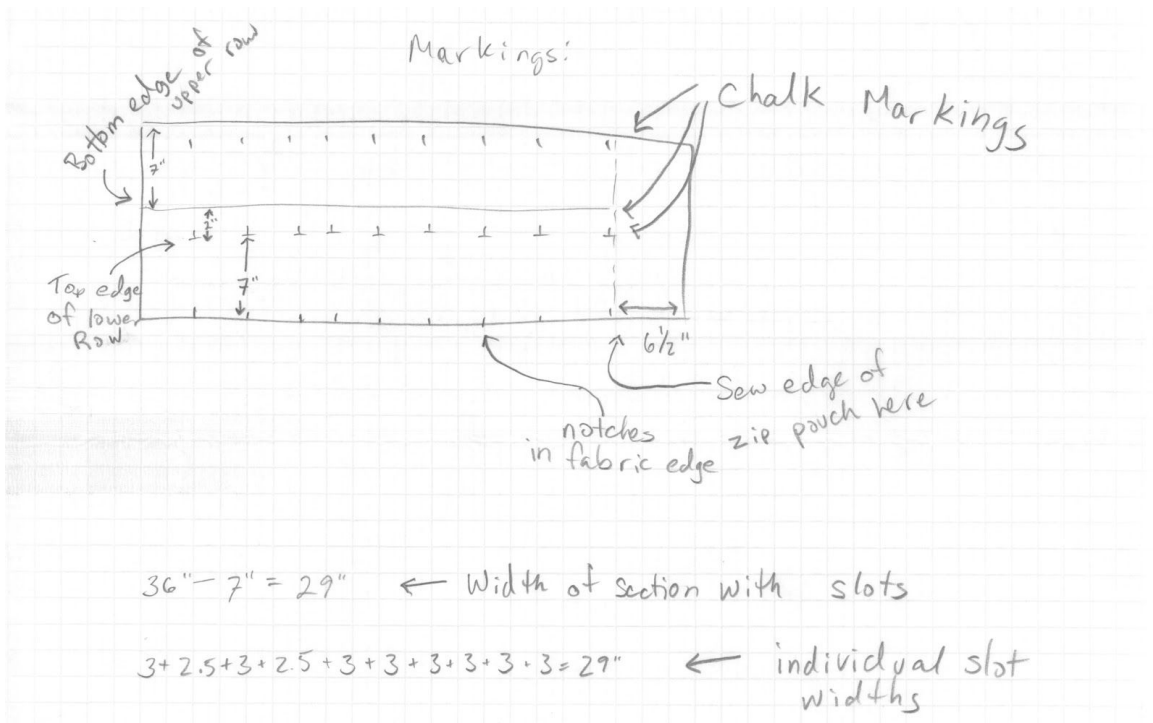
The flap up top is the same width as the portion of the roll with the pockets, so 29" wide and it has to come down far enough to overlap the stuff in the lower row of pockets. I made it 12" deep, and I rounded off the corners just because. It's only one layer of Cordura, because I want to be able to easily tie it up out of the way.

The last thing I cut is the decorative reinforcement contrast color panels on the outside. They're just big rectangles, cut on a diagonal and reassembled with the pieces mixed and matched, then topstitched them down. Quick'n'dirty and nothing complicated, but they make the roll look much fancier!

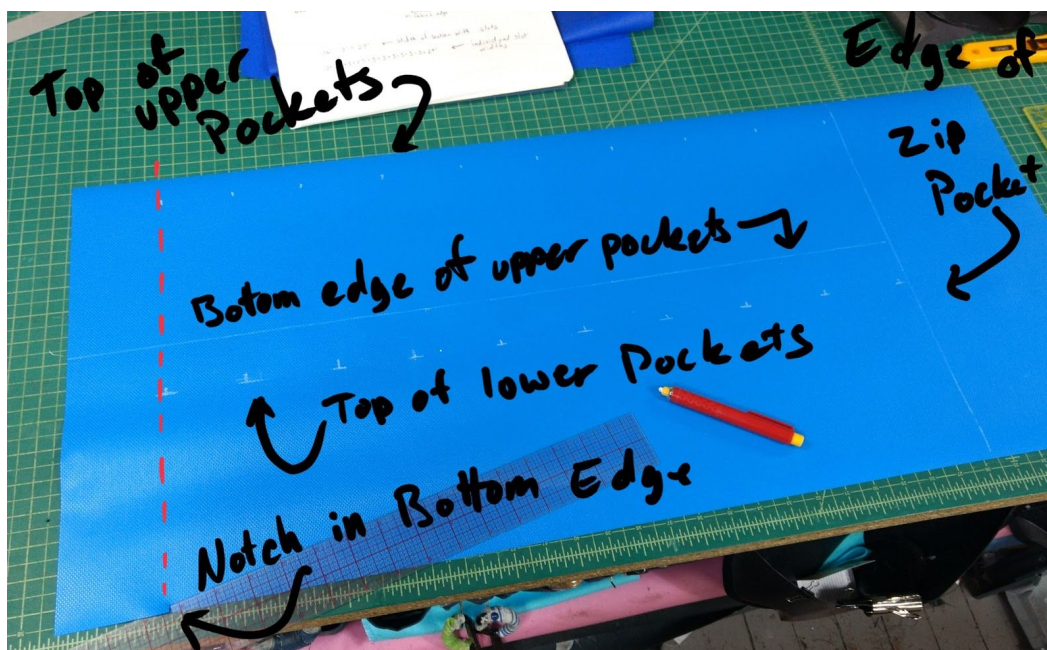


The first step in assembling the tool roll is to sew down the two rows of pockets. I started by hemming the top edge; as I mentioned before, you could bind this edge instead. For another alternative, with a lighter-weight fabric, you could double the fabric over and use just a folded edge; see the knitting case for more on that.

Since there's a lot to mark out, I made myself a diagram with the pocket measurements before marking on the fabric:



Then I marked out where the slots will go using chalk marks in the middle of the backing piece and snips in the bottom edge:



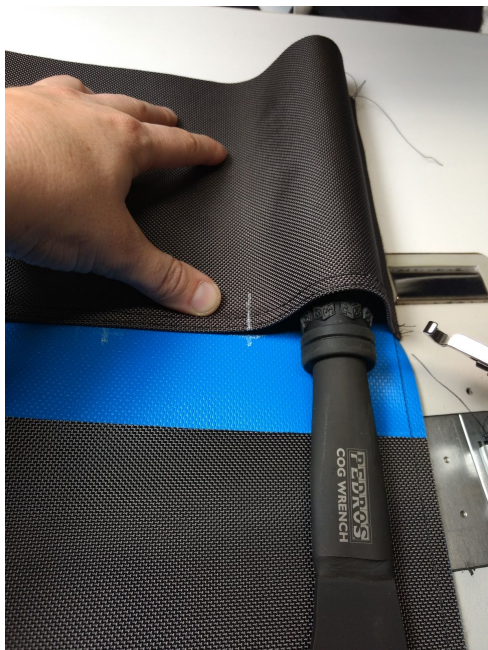
The notches in the bottom edge will be easier to find when there's fabric over top of them than a chalk mark would be. But measure and square these up carefully; if a notch doesn't line up with its corresponding chalk mark, and you're using the two as a guide, your line of stitching won't be straight.

Note that the line for the edge of the zippered pocket is not 7" from the end of the panel for a 7"-wide pocket. This line is where the edge of the fabric will line up, so it needs to account for seam allowance. If the pocket will be stitched 7" from the end of the backing panel, the line is 6½" from the end to allow ½" of seam allowance.

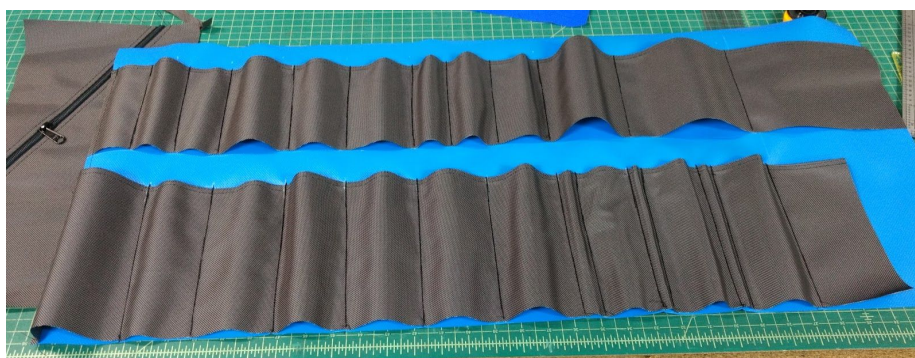
I started sewing down pockets from the lefthand side, although it really doesn't matter which way you go. Start by sewing the edge of the pocket strip to the edge of the backing, then use the tools or some representative object to gauge how much fabric the first pocket needs, and make a new chalk mark as in the picture below, to line up with the mark on the backing.

Then sew the stitching to divide that pocket, keeping the bottom edges flush and the chalk marks lined up. You can either measure the fabric you need for each one, or you can use some item to figure it out one by one as you go, like this. The pockets don't all have to be the same.





Once you've done that for the bottom row, repeat for the top. The result looks like this for now, with the stitching divided the pockets complete but the bottoms not yet sewn shut:



Note that the pockets go up to where the zippered pocket on the end is marked but there's still a bunch of excess. Now is a good time to trim that off, leaving about  $\frac{1}{2}$ " for the zipper pocket to overlap. You could start from the other end too, it doesn't matter.

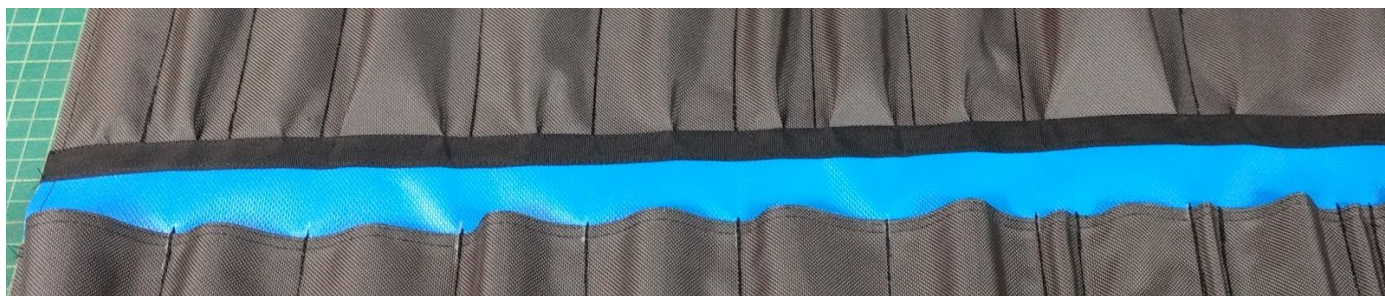
**Important note about reinforcing your stitching:** A tool roll this size will carry heavy items and take some abuse. You want to use the heaviest thread your machine can handle, such as upholstery thread if possible or just "heavy duty" if not. In any case, you definitely want to back-tack a bunch at the top edge of the pocket on each line of stitching; forward and back 6-8 times over a space of maybe an inch is a good amount. If your machine does good zigzag stitching, you can use it to make bartacks at the top edge instead. To make a bartack with a regular sewing machine, set the stitch length very short. You should try a couple on a piece of scrap until you get something you're happy with.

It's also not a bad idea to reinforce the whole line of stitching, either by going back and stitching over top of each line an extra time or two, or by stitching each by going two inches forward, one inch back, two inches forward, etc. Especially if you have to use lighter weight thread than would be ideal, doing this will go a long way toward making the roll hold up to heavy use.

Next it's time to close off the bottoms of the pockets. The bottom row is simple enough, just sew them closed along the bottom edge. Since the pockets have more fabric than the backing, they'll need a little pleat or two in each one in order to be sewn flat. You can just tuck this in with your fingers as you go. As you can see in the picture, I made one pleat in the skinnier ones and two pleats in the wider ones. To keep things looking neat, when I make two pleats, I make them mirror image of each other; when it's only one, I center it and make them all go the same way. An extra line of stitching here doesn't hurt, either. In any case, keep the stitching within the last ½" of fabric at the bottom so it can be hidden when you bind the edge at the end.



For the top row, I start by sewing the bottom edge down just like for the bottom row. But this won't have a seam binding because it's not at the edge, so we have to cover the raw edge some other way. One option is to bind the bottom edge of the top pocket piece before sewing it down. But what I prefer is to sew it down as a raw edge and then just sew a strip of grosgrain down on top of it, covering the whole business. This looks tidier and will hide any wobbles from sewing the pleats. An extra pass of stitching here doesn't hurt, either.



Now that the slot pockets are all done, let's make the zippered pocket. If you're intimidated about sewing zippers, look up part 1 of [last year's Pickle Project](#), which contains a detailed zipper tutorial.

It looks complicated and fancy to have a zipper on a diagonal like this, but it can be done surprisingly quick'n'dirty. In this case, I started with a rectangle about the size of the pocket, with a bit of extra width. If you're not sure, make it oversize; for this project, you can always trim off the excess after it's sewn down.



I decided where the diagonal zipper should go, more or less, keeping both ends away from the corners so that I don't have to sew over corners and zipper in the same places, and cut the rectangle on a diagonal. Then I sewed the zipper tape to each edge.

The width for the seam allowances at the zipper tape means that the edges don't line up anymore, so after sewing in the zipper tape just trim it so that you get a neat rectangle. Then insert the zipper slider.



This is why you start with a rectangle that's bigger than you need. If you were making a large batch of these, it would make more sense to actually calculate the correct size and line everything up, but when you're only making one and it doesn't have to be exact, this way is more straightforward.

To attach the pocket, lay it face down on top of the slot pockets, with its edge lined up on the chalk mark and sew it down. For a coil zipper of this gauge, a home sewing machine can run right over the teeth (don't forget to backtack a few times to reinforce the end!). Like the rest of the pockets, a couple extra lines of stitching aren't a bad idea. This seam will get some abuse from items inside the pocket. It's a good idea to cover it with some grosgrain too, just like the bottom edge of the slot pockets.



Next, flip the pocket over and stitch it around the edges. I left some slack at the fold, which will make a little more space for the pocket to puff out when it has stuff in it and give some extra room for the zipper to curve around.

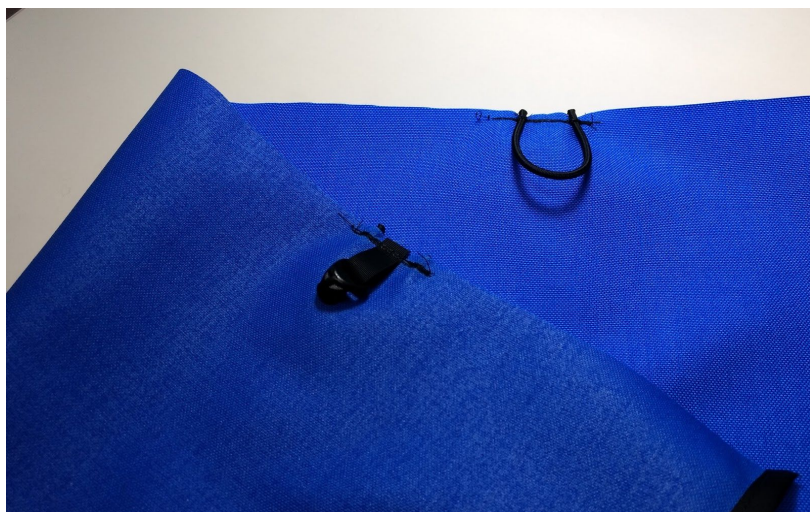


The next step is the flap to keep stuff from falling out. It's cut to cover the portion of the roll with the slot pockets. I rounded the edges and bound it with folded-over grosgrain, but you could leave it rectangular if you prefer, and you could hem it instead of binding it.





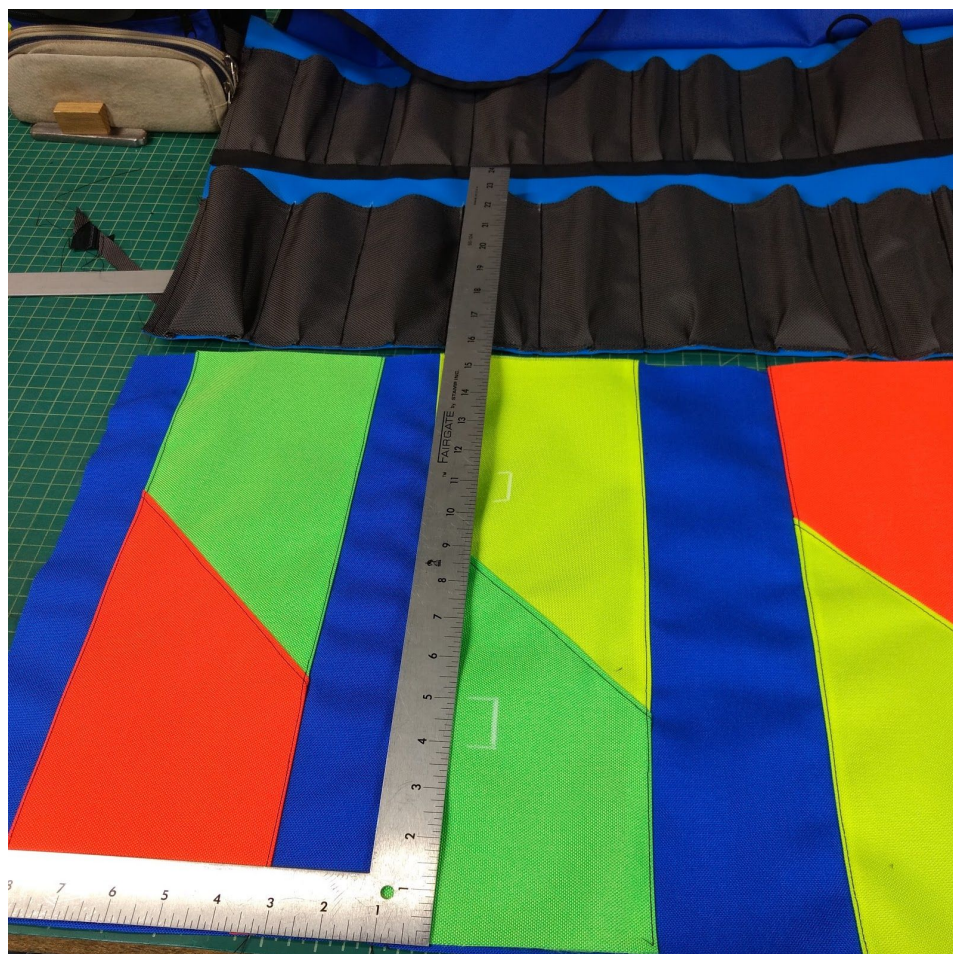
I also added pack hooks and short loops of shock cord which will tie the flap out of the way for easier access to the contents if the roll is hanging on the wall. I sewed these onto the edge of the flap first, then sewed the flap to the top edge of the roll.



Now the business side of the roll is basically done, and it's just the outside that's left. I've already sewn down the contrast color decorative/reinforcing panels, so basically I just have to attach the straps and handle.



I will want to stitch the inside to the outside in a few places to help everything stay together and roll up nicely, and I want some of those places to be to each side of the straps. So I need to position the handle so that it ends up opposite a pocket, not opposite a line of stitching:



I'm measuring and marking two boxes, which is where the box tacks will go. One piece of webbing makes the handle and holds the D-rings; the other two cross over it at 90° and hold the buckles. If you're not sure how long to make the straps, leave them on the long side until you can try rolling up the roll with stuff in it; you can always shorten them later. I position the straps closer to one end than the other, so that the end with the pocket can end up rolled inside. You can always sandwich the inside and outside together and try rollin it up tightly and loosely to figure out where you want the straps.

It's hard to sew around that D-ring, but one trick that will help is to prop up one side of the foot with a piece of wood or something with a flat surface that's at least as thick as the D-ring. You'll sew right along the edge of the wood, and that will keep the D-ring from deflecting your work.



Next, put the inside and outside together and stitch it around the edges. You could also just do this when you bind, but an extra pass of stitching won't hurt and it will give you one less thing to think about while binding.



Once that's done, all that's left is to bind the edges. One nice thing about grosgrain is that if you crease it half with your fingers, it's really pretty easy to sew it neatly over a raw edge without needing a guide or binder attachment. I sew two opposite sides, then trim the edges flush, then sew the two remaining sides. Trim the remaining ends flush, and singe the cut ends of the grosgrain with a lighter. Then make a couple of backtacks over those ends so they don't come open.

It may not matter in all cases, but for a tool roll that will get as heavy as this I think it's helpful to stitch the inside to the outside, to help it roll neatly and keep everything together. So as a last step in the construction, I sewed a few lines of stitching on top of the pocket divider stitching but going through all layers and with



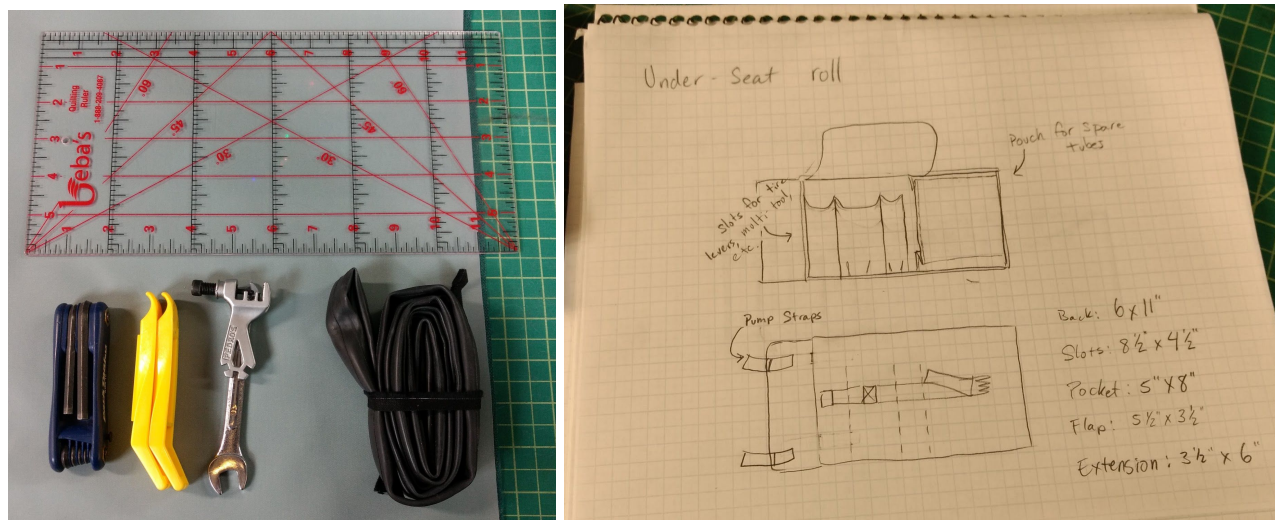
backtacks just shy of the binding at each end. As I mentioned, I checked when marking the positions of the straps so that they wouldn't be in the way of this step. Here's what the outside looks like, with those extra lines of stitching:



For the finishing touch, I punched some holes and hammered in some brass grommets to hang it by, and sewed some velcro straps onto the edge at the zip pocket end for a small pump, and the big tool roll is done!



Now that the big complicated one is done, let's look at the littler, simpler **under-seat tool roll**. As before, it starts by laying out what it will carry, and plan it on paper:



Because that's not very many items and the tube is bulky, it's going to need a little extension past the end of the pockets so that there's enough length to actually roll up. I suppose a small pocket for little things like patches, a spare master link, or a presta valve adapter wouldn't hurt, and if you want slots for CO2 cartridges, that would be a good place to put them. I made the extension this way to illustrate another way of covering the edges, but it's your roll, so you can decide how it goes together!

This roll will have room for maybe two skinny tubes or one wider tube in a pocket that will keep the tube away from anything sharp or rough. To have room for the tube, the pocket will have some larger pleats along the edge, and it will open toward the inside of the roll. And like the big roll, the slot pockets will also have pleats to give them room to hold bulky items. So the dimensions of the parts are as follows:

Back panel: 11" wide x 6" high

Slots: 8.5" x 4.5"

Tube pocket: 5" wide x 8" high

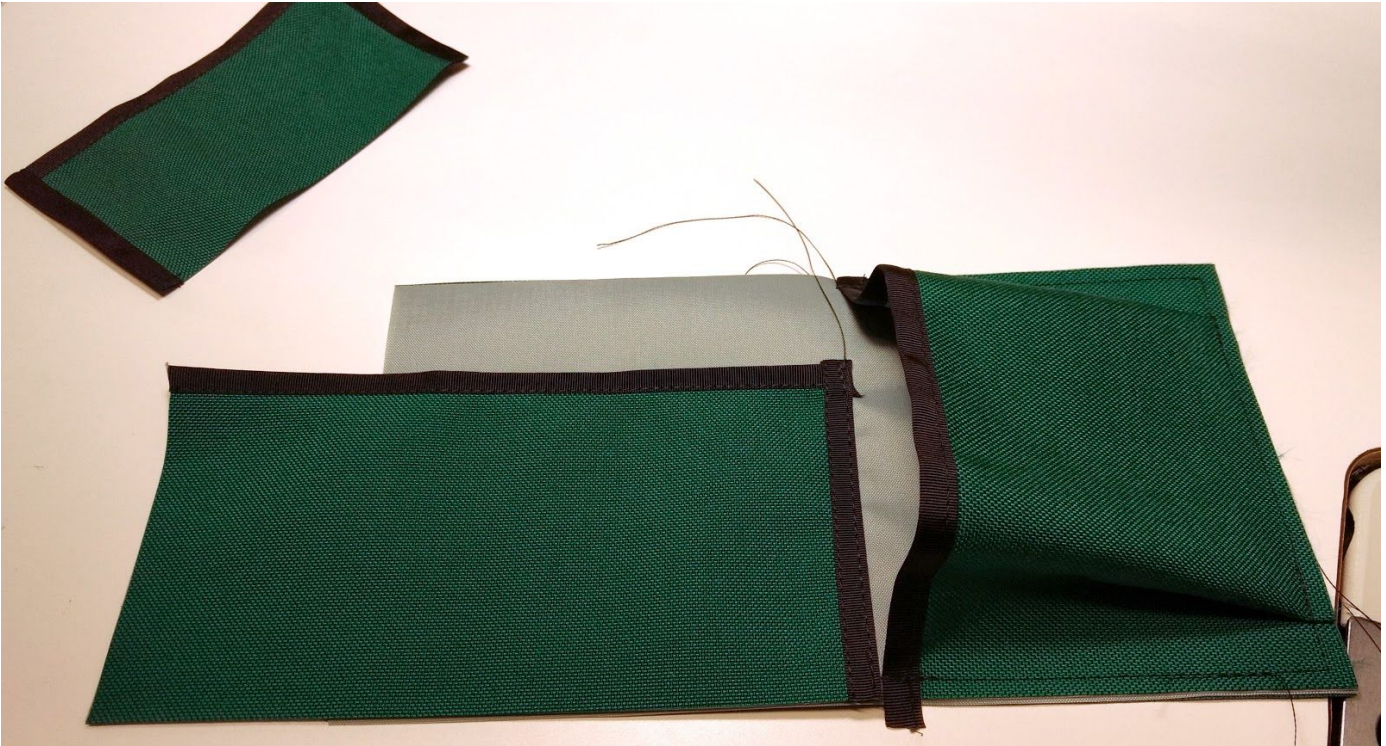
Flap: 5.5" x 3.5"

Extension: 3.5" x 6"

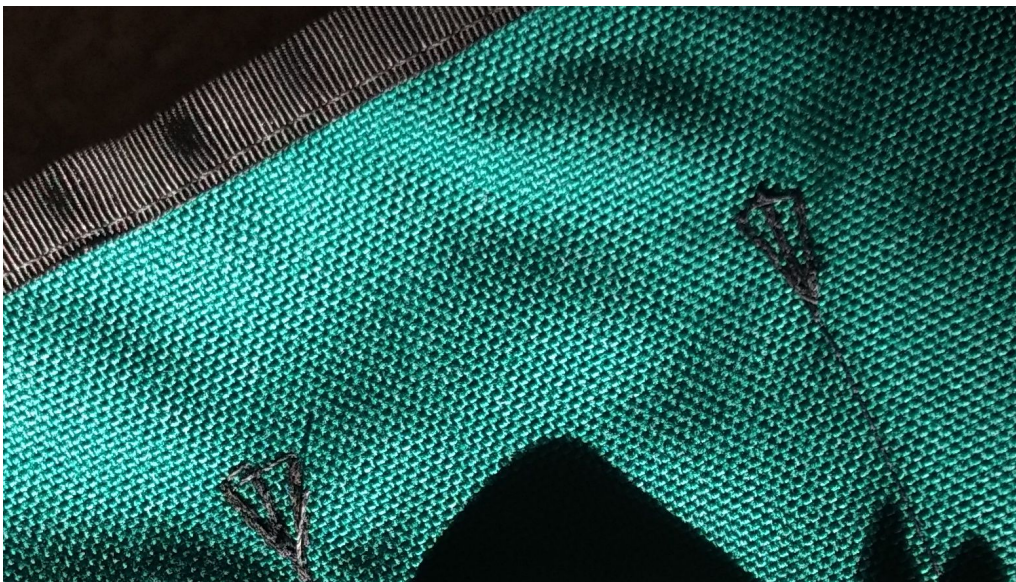
Each of these pieces except the flap (you could do it with the flap too if desired) gets cut in both an outside material (Cordura in this case) and the lining material (nylon oxford). These will mostly be kept together and basically treated as one piece from here on out, which makes this roll even simpler.

In this photo, I've used grosgrain again to bind the raw edges of three sides of the flap, one side of the tube pocket, and two sides of the slot pockets. And like the final step on the big tool roll, I singed the cut ends of the grosgrain at the corners and back-tacked over the ends to keep them from coming apart. Then I sewed the tube pocket down to the back panel around three sides, making a small pleat about an inch from each edge. I have also sewn down the righthand edge of the slot pocket piece.





Although it's not really necessary in this little roll, I made extra triangular "crow's foot" tacks at the top of each slot to demonstrate another way of reinforcing these (although it will narrow the openings a bit):



With the slots sewn:



Next I'll attach that extension piece. This is the one part of this roll where the lining and the outside get separated at all. But separating them this way is one possible method of adding on additional components to a roll without having extra awkward seams sticking out. You might do this as a neat way of adding more contrasting colors, or because you forgot about a component you wanted to add, or because you thought of something extra later.

Anyway, make a sandwich with the roll in between the two extension pieces. The lining piece goes against the inside of the roll with the fabric facing in, and the outside piece goes to against the outside of the roll with the fabric facing in. Stitch the lefthand edge through all layers. Then flip the extension pieces back out so that they meet. The raw edge is now hidden sandwiched between them. Topstitch to keep things neat.

In this photo, I've sewn on the extension and bound the edges of the extension fabrics together, and I've also attached the flap and sewn up the bottoms of those slot pockets.





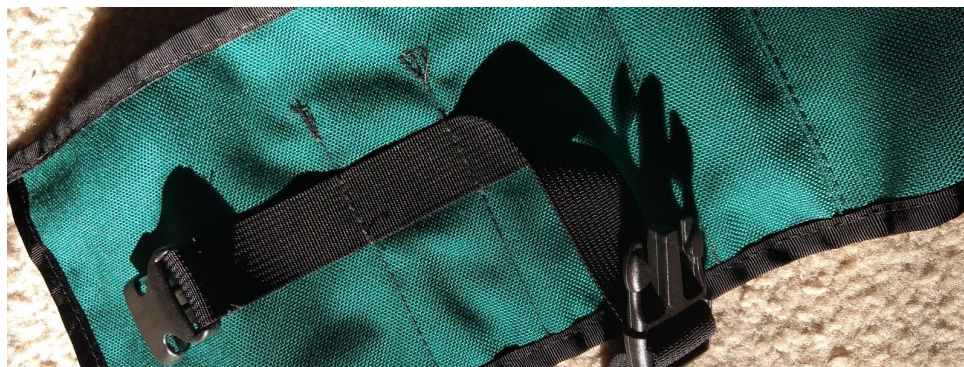
As you can probably assume, the next step is to bind the remaining raw edges. The little roll is almost done.



All that remains are the velcro straps to hold a pump, and the strap that will keep it rolled up and attached to the saddle rails. In this case, I simply flipped the whole thing over and stitched a strap onto the same place as two of the pocket seams. Another alternative way to attach a strap would be to use a short piece of webbing to



make a belt loop on the outside before sewing down the pockets (make sure the belt loop doesn't coincide with any pocket seams), and then use a toe strap or anything else you've got on hand to roll up and mount the roll.



Lastly, I stitched two velcro straps onto the end of the extension. Those will hold a small pump, which can then be rolled right up into the roll with everything else.



Here it is strapped onto the saddle rails. It's quite secure even with just the one strap.



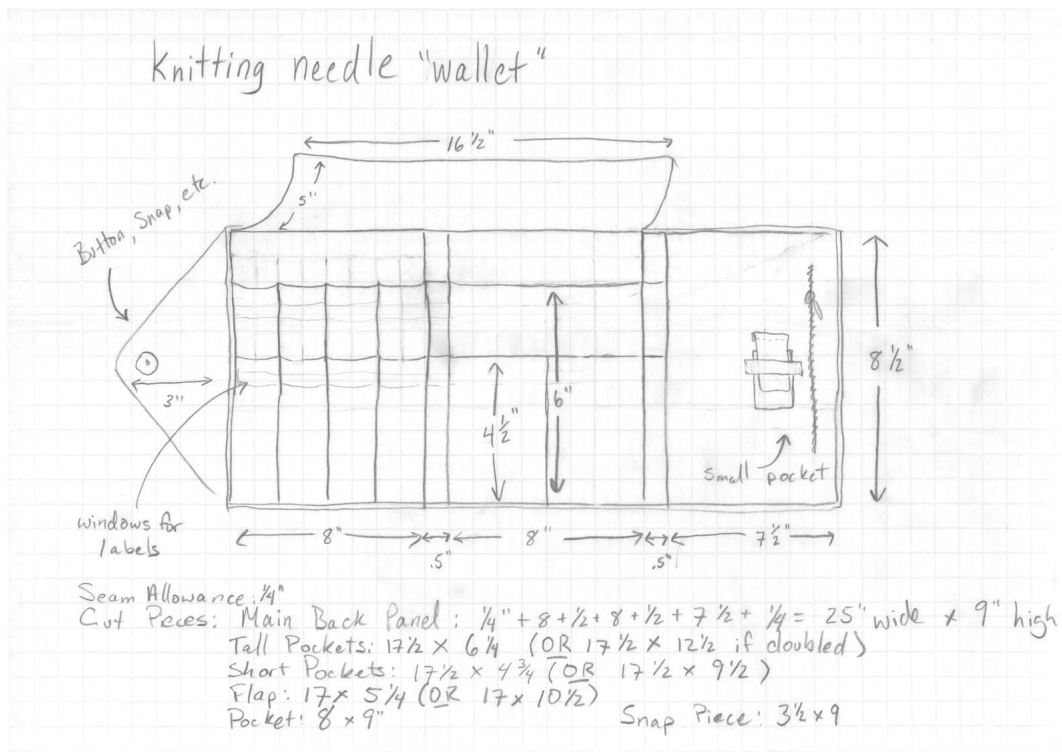


Lastly, we have the **knitting needle case**. It's still a useful thing to read through even if you aren't a knitter, because it demonstrates a few more alternatives to consider.

Here's the pile of stuff I want to put in it:



One thing that jumps out immediately is that the circular needles (those are the ones with a flexible cable in a loop) don't necessarily lend themselves that well to being rolled up. So this one won't be a roll per se, it will be more like a tri-fold wallet or folio. The lefthand panel will have two rows of slots for the shorter needles and the longer ones; the center panel will have wider slots to hold circular needles; and the righthand panel will have a zippered pocket for all the other odds and ends. Just because it's another thing to demonstrate, I'm going to add an extra little pocket on top of the righthand panel for those tapestry needles, which can easily go missing.



In order to make it fold neatly in three, I'm leaving  $\frac{1}{2}$ " between each segment, which will act like the spine of a book, allowing for the bulk of each part and its contents. Also, the panel that will be in the middle when it's all folded in (in this case, the one with the zippered pocket) is a little narrower than the others so that it isn't in the way when it folds in.

This one will close with a magnetic snap on an extension that will stick out the side, a lot like the extension on the small tool roll. I used fine cotton canvas for this. Any finely-woven smooth fabric would work; quilting cotton could be a good choice, or cut-up shirts, etc. I recommend a somewhat heavier fabric for the outside to help it keep its shape and protect the contents, but you could also use a fine fabric and add interfacing.

So as with the others, I've laid out the knitting stuff and decided that each segment will be 8" wide and the whole thing will be  $8\frac{1}{2}$ " high. And because I'm using a finer, lighter fabric, I only need  $\frac{1}{4}$ " for seam allowance. That means the backing panel is cut to 25" x 9". I cut one out of the outside material and one out of the lining.

**\*One note about that  $\frac{1}{4}$ " seam allowance:** If you're using finely-woven fabrics such as quilting cotton,  $\frac{1}{4}$ " or  $\frac{3}{8}$ " are good seam allowances. The reason for using smaller seam allowances, rather than the  $\frac{5}{8}$ " recommended in a lot of home sewing patterns, is that it's easier to be more accurate with a smaller seam allowance (it's not to skimp on fabric). Anything that makes accuracy easier is helpful! For thicker and heavier fabrics though, or anything with a looser weave, I use  $\frac{1}{2}$ ".

The **slot pockets** on the knitting case don't need the extra slack that the pockets on the first two rolls needed, because knitting needles are pretty skinny. And also because they're pretty skinny, I can put a row of short pockets right over top of the tall pockets. Both go all the way to the bottom, to accommodate the longer needles and the shorter needles.

Therefore, the slot pockets can be the same width as the backing panel minus the portion where the zip pocket will be, plus seam allowance to get the edge under the zip pocket's edge, which means they're cut  $17\frac{1}{2}$ " wide. The height of these pieces depends on what method you use to finish off their top edge. The taller pockets will be 6" high. If I wanted to bind that top edge like in the small roll, I'd cut the piece  $6\frac{1}{4}$ " high because I only need to add seam allowance at the bottom edge. If I wanted to hem the top edge, I'd need to add enough to account for the hem. But in this case, I'm going to fold the fabric over and use the fold as the top edge for a clean finish with fewer steps. So I'll take that  $6\frac{1}{4}$ " measurement that I'd use if I were just going to bind the raw edge, and double it. That means the taller pockets are cut to  $12\frac{1}{2}$ " high, and the shorter ones are cut to  $9\frac{1}{2}$ " high. I've made the taller pockets out of a contrasting material.

It's not a bad idea to iron the creases into the top edges of the slot pockets to keep the layers cooperating.

The **zip pocket** will be basically flat, so it doesn't need extra width beyond the seam allowance. So if it's  $7\frac{1}{2}$ " wide by  $8\frac{1}{2}$ " high, add  $\frac{1}{4}$ " seam allowance to all sides and cut it 8" wide by 9" high. The zipper itself will be set in, so that I don't have to deal with the ends of the zipper at any of the edges. See the [zipper tutorial in last year's project](#) for more on this part.

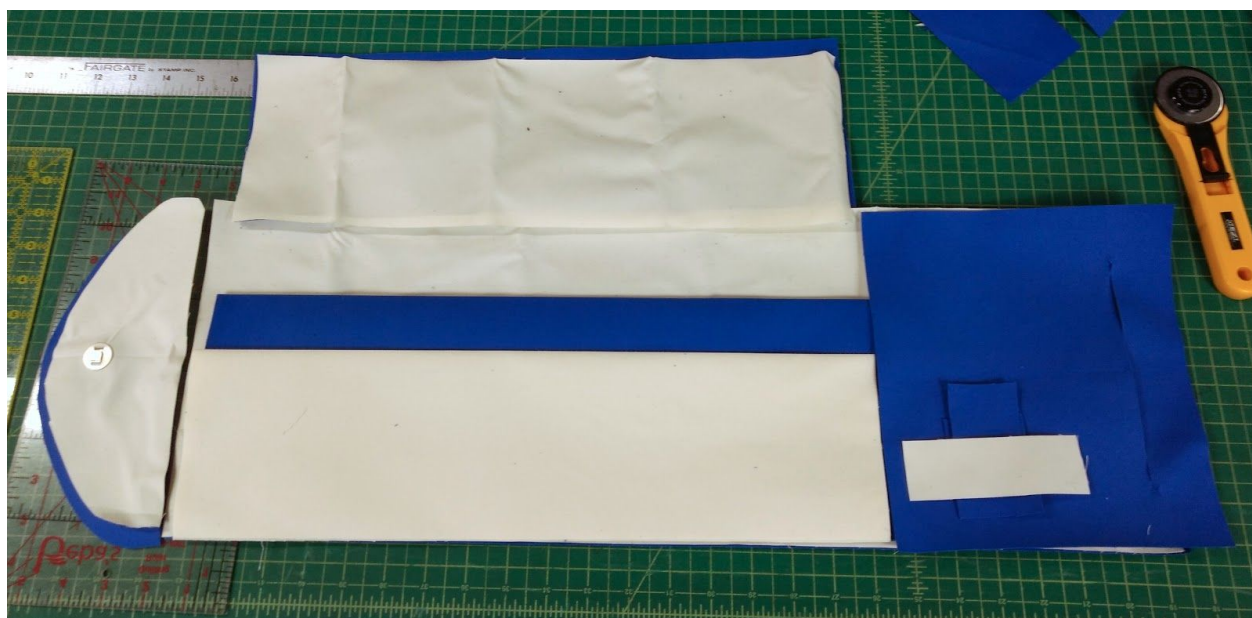
The **flap** will be made with a double layer of fabric as well, rather than just binding or hemming the raw edge. One option would be to make it with a folded edge like the slot pockets. But I've decided to make it white on



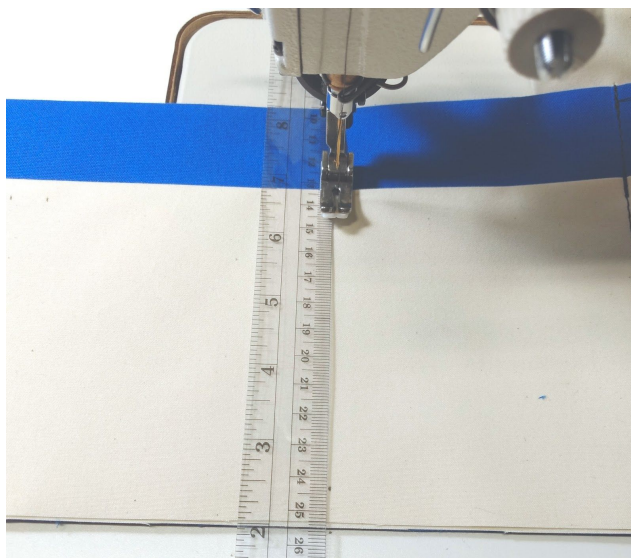
the inside and blue on the outside. So that means I need to add seam allowance all the way around. The two dimensions listed on the drawing are for either this option or the folded-over option.

The extension with the snap on it can be done any number of ways, and you can wing it to some extent. I listed dimensions and cut it out as a rectangle, then trimmed it into the shape I actually wanted.

Here are all the parts laid out:



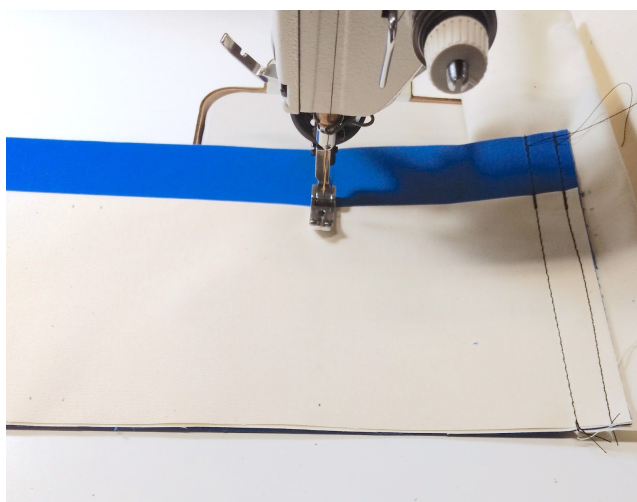
As before, start the assembly with the slot pockets. I'm sewing these only into the interior fabric, not the exterior. Since the fabric is white, I marked the stitching positions with tiny pencil dots, and used a ruler while stitching to keep myself honest.



With the folded-over pocket pieces, there are a lot of layers and I don't want them sliding around while I work. That's what pins are for, but pins distort the fabric and plus they're sharp. I prefer binder clips when I need to do something like this. In the picture below you can see my tiny pencil marks, and you can also see that the pockets don't go all the way to the ends of the backing piece.



You might notice that in the middle panel, the stitching dividing it into two halves doesn't go all the way through both pocket pieces. This will be two smaller pockets at the shorter height, and one wide one at the higher height. So for this one line of stitching, I need to get the backing piece out of the way and sew that one line going through only the two pocket pieces. Then I can put everything back together and sew the rest of the slots.



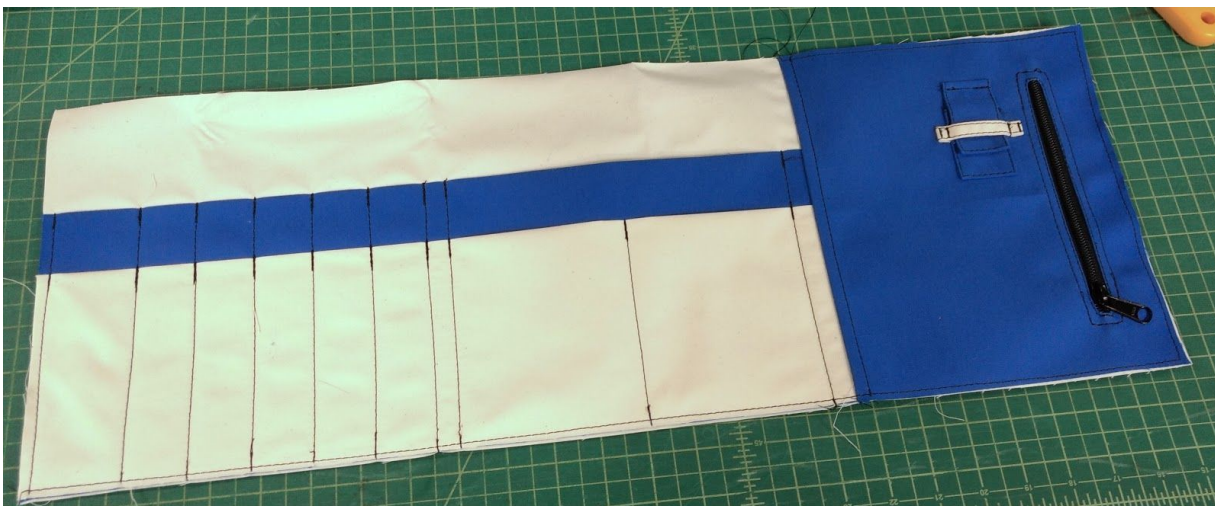


Next comes the zip pocket. It's pretty similar to the zip pocket on the big tool roll, only this one is going to be flat instead of having that little bit of extra slack at the fold. So I start by sewing the pocket just like the other one:



But instead of covering that raw edge with grosgrain, I'm just going to flip the pocket back to the right side and topstitch a tad over  $\frac{1}{4}$ " from that raw edge to cover it. This difference is one reason why the zipper is set in and not on a diagonal like in the big tool roll: it wouldn't make that crease very well.

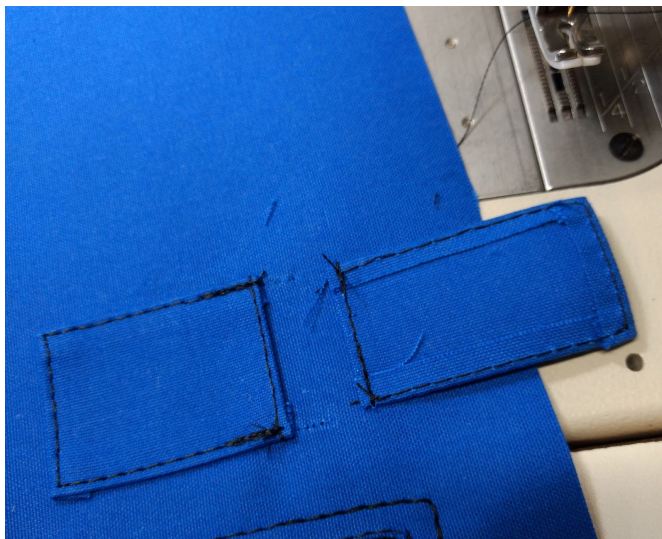
In this next picture, I've topstitched the raw edge on the left side of the zipper pocket and sewn down all the edges of all the pockets:



Now, for a little diversion. This is actually slightly out of order, because it needs to be done \*before\* the zippered pocket gets sewn on. To demonstrate another way of adding additional pockets onto an item like this,

I've made a leeeetle tiny **add-on pocket** for tapestry needles. It's functionally a tiny version of a single slot pocket, with it's own little flap and a little fabric strap to keep the flap from flapping on its own. The little lid is slightly narrower than the little pocket and the fabric strap is wider, so it's not too hard to get the lid into the strap. It's pretty straightforward; because this fabric is rather stiff and the whole thing is so small, I only did single-fold hems all around. With more fragile fabric I might do double fold hems, but since this is so small and isn't going to get much abuse I'm not too worried about it.

I hemmed three sides of the little lid flap, and the top edge of the pocket. Then I topstitched the pocket down on three sides, and stitched the flap above it.



Then I folded the flap down and topstitched  $\frac{1}{4}$ " from the fold - a smaller version of how I covered the raw edge of the pocket itself. The little strap to hold the lid down is just a strip of fabric with the raw edges folded inside and sewn down the edges, then sewn down with a couple of short backtacks on each end.



In this case, this add-on pocket is just little and simple. But you could use the same basic method to attach larger pockets onto any other portion of your roll - inside, outside, pockets on pockets, etc. They could even have slots or pleats or zippers or whatever.

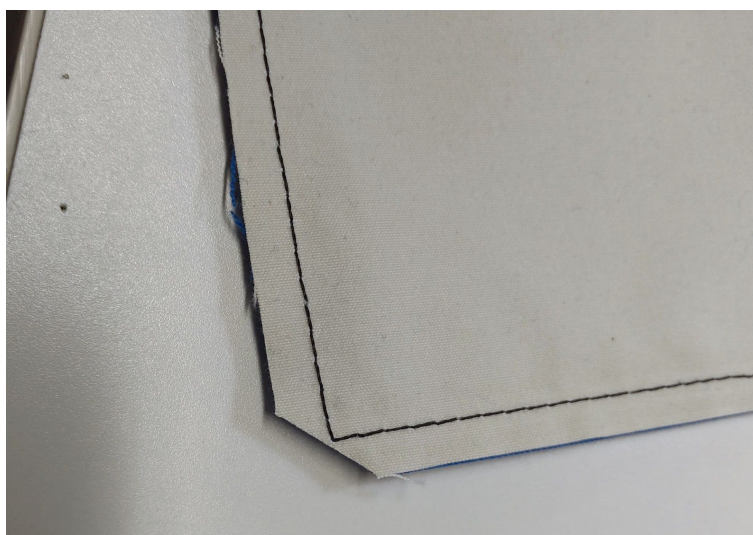


With that done, let's look at the parts that will get sewn to the outside panel. In this case, that's going to be the extension and the flap. For the extension, I decided where the snap would be and set the first side of it in the lining only. This way it won't show from outside. I used a magnetic bag snap; you could use similar methods with regular snaps, or with a button, or with velcro, buckles, etc.

Then I put the "right" or outside sides of the fabric together, and stitched around the outside edge of the extension at the usual  $\frac{1}{4}$ ". Another benefit of smaller seam allowances is that you don't have to clip or trim as much when you turn a curved edge. So having stitched around the edge with the piece inside out, I flipped it right side out and topstitched  $\frac{1}{4}$ " from the edge.



The flap is made basically the same way: "right" sides together, and stitch around three sides. The one difference is that you need to clip the corners before turning it right side out, otherwise they'll have weird little bumps and won't come out square:



With the flap and the extension done, they get sewn down into their positions on the **outside** fabric just as they would sit on the inside. Yes, the outside! Don't worry, they'll end up in their proper places! But you do want to make sure that the flap ends up on the right side and the extension is on the end where you want it, so it doesn't hurt to stack up all the parts into their final configuration, then flip the flap and extension over so they're flat against the outside and you know they're in the right place before sewing them down. I forgot to take a photo of that, sorry.

The last thing to do before final assembly is to **set the other half of the snap**. Again, put all the pieces together the way they'll be when it's finished, and fold it into three. Wrap the extension around and find where the snap lands, and use that spot to find where its mate should go. Having marked where the snap is this way, it's not a bad idea to just check the position with a ruler to make sure it's centered. Then set the other half of the snap (or sew on velcro, or attach a buckle, or whatever you use).

Now for the **final assembly**. For this roll, I'm turning the edges in between the layers instead of having them on the outside and covering them with binding tape like in the other two. That means putting it together inside out and sewing around as much of it as possible while leaving a small opening through which I can turn it right side out. Then I will have to close up that little gap in some way.

In this case, I left the gap at the top edge where the flap is, because it will be easy to close it neatly and invisibly when I topstitch it all afterward. I was in a hurry and didn't photograph this step, but this picture shows where I sewed and where I left the gap:



Just keep in mind that this is after turning it right side out. While sewing, the inside panel with the pockets sewn to it is facing the outside panel, with the flap and the extension sticking to the inside. So the whole thing that you're sewing on this step looks like a rectangle, not a rectangle with a flap and an extension sticking out of it.

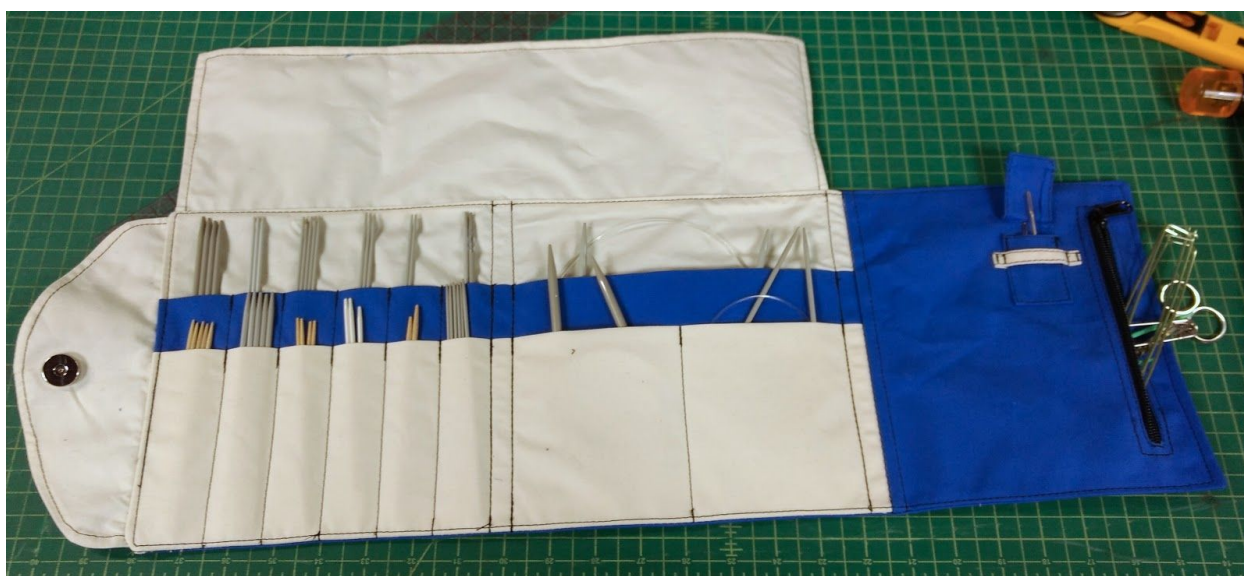


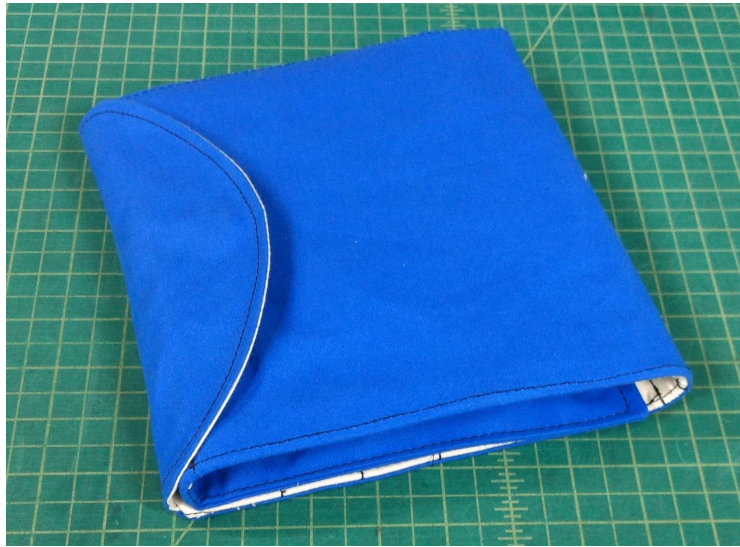
Next, clip the corners like you did for the flap and turn it right side out through that gap. With all these layers, there will be some bulk at the corners, especially near the bottom corner of the extension. It doesn't hurt to iron everything at this stage (I didn't do this, as you can see from the wrinkles... but I was in a hurry to finish this tutorial!), but at the bulkier corners that might not be enough. You can use a mallet like the one to pound them a little flatter, which will make the topstitching work a lot more easily.

Lastly comes the topstitching. I topstitched at a bit under  $\frac{1}{4}$ " all the way around the rectangle you get if you don't count the flap and the extension. This keeps everything flat and also closes that gap that was needed for turning it right side out. I also topstitched the two half-inch "spines", right over top of the stitching that was already there for the pockets. So here's a diagram of where I topstitched:



And the knitting needle case is done!





As you can see, the same basic methods can create a huge variety of useful tool rolls, and the variations are endless.

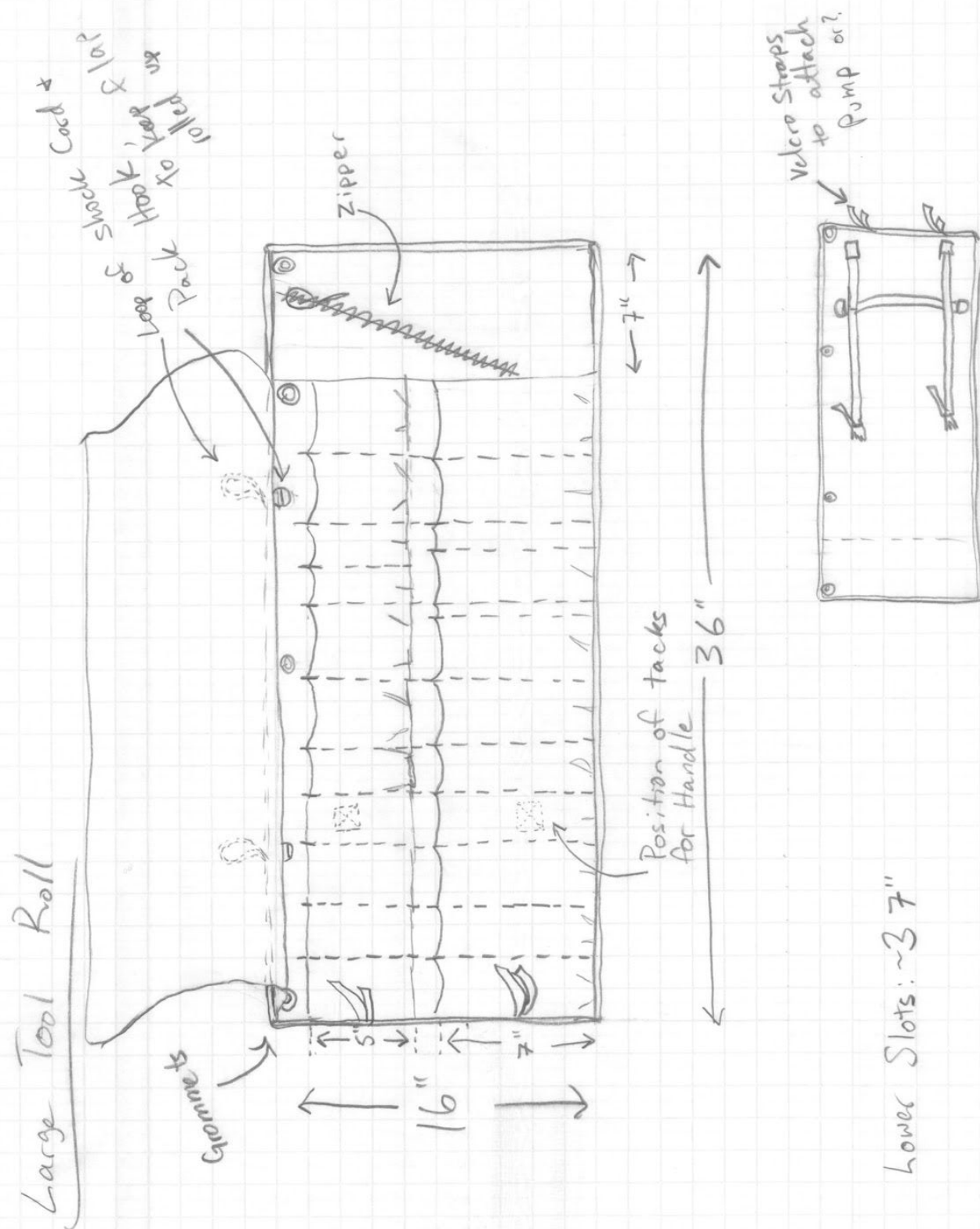
This tutorial is long enough, but for more on things like zippers, tacks, ways of attaching straps and buckles, etc, check out last year's two-part project on luggage and travel accessories. It covers some of those topics in depth, as well as more about either purchasing new material or reclaiming/upcycling materials from other sources.

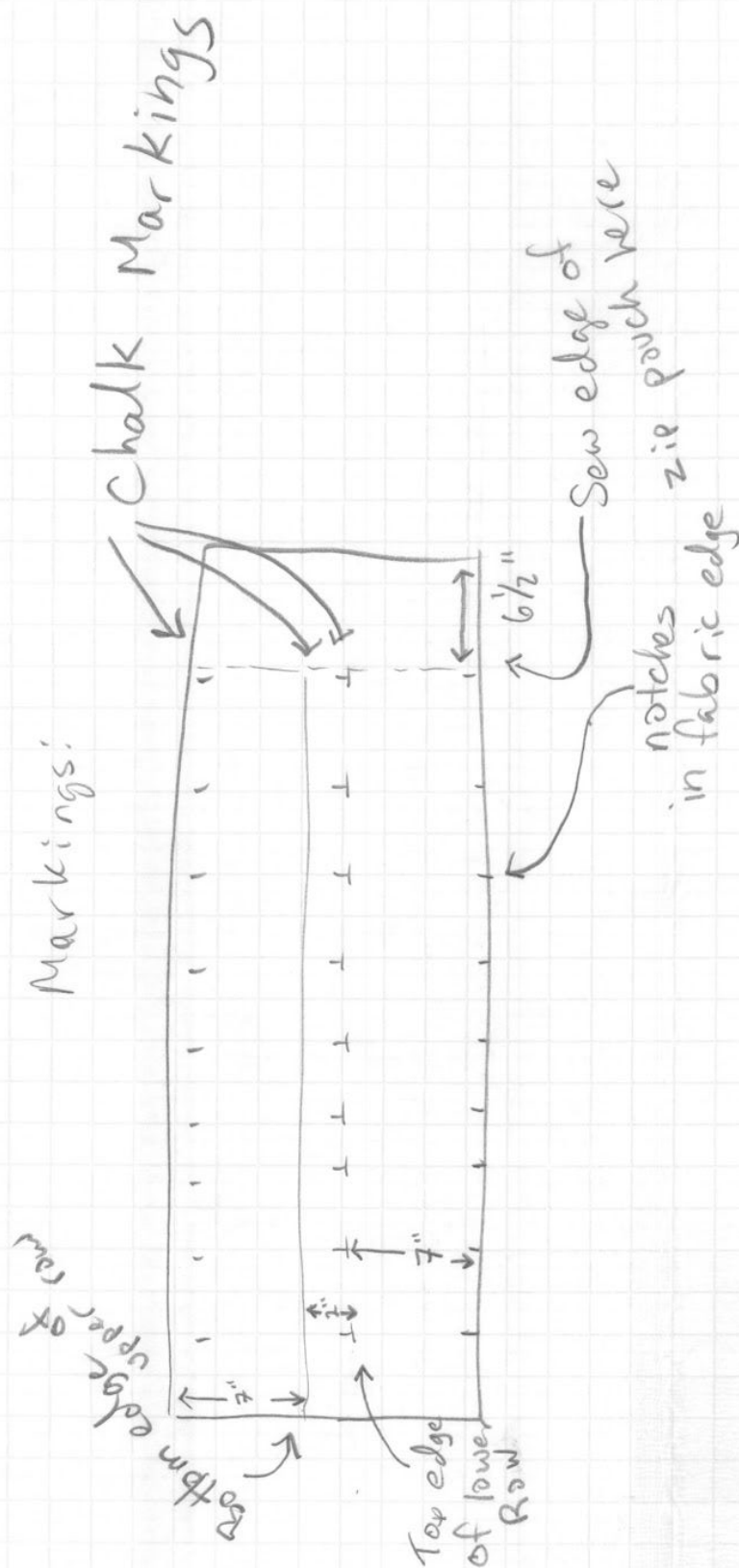
And as always, these projects are shared for free for your personal use. Please do not sell or distribute them without credit.

If you enjoyed this tutorial, please consider making a donation to Days for Girls ([www.daysforgirls.org](http://www.daysforgirls.org)) or even sign up as a volunteer!

The last few pages are the drawings I created for each roll:





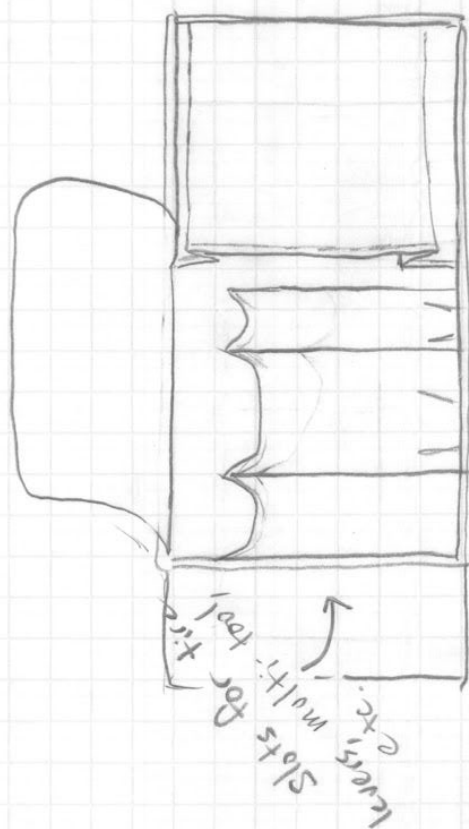


36" - 7" = 29" ← Width of section with slots

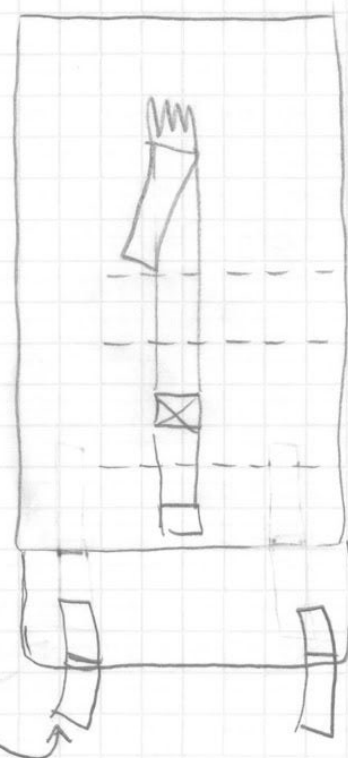
3 + 2.5 + 3 + 2.5 + 3 + 3 + 3 + 3 + 3 = 29" ← individual slot widths



# Under-Seat roll



Pump Straps



Back:  $6 \times 11$ "

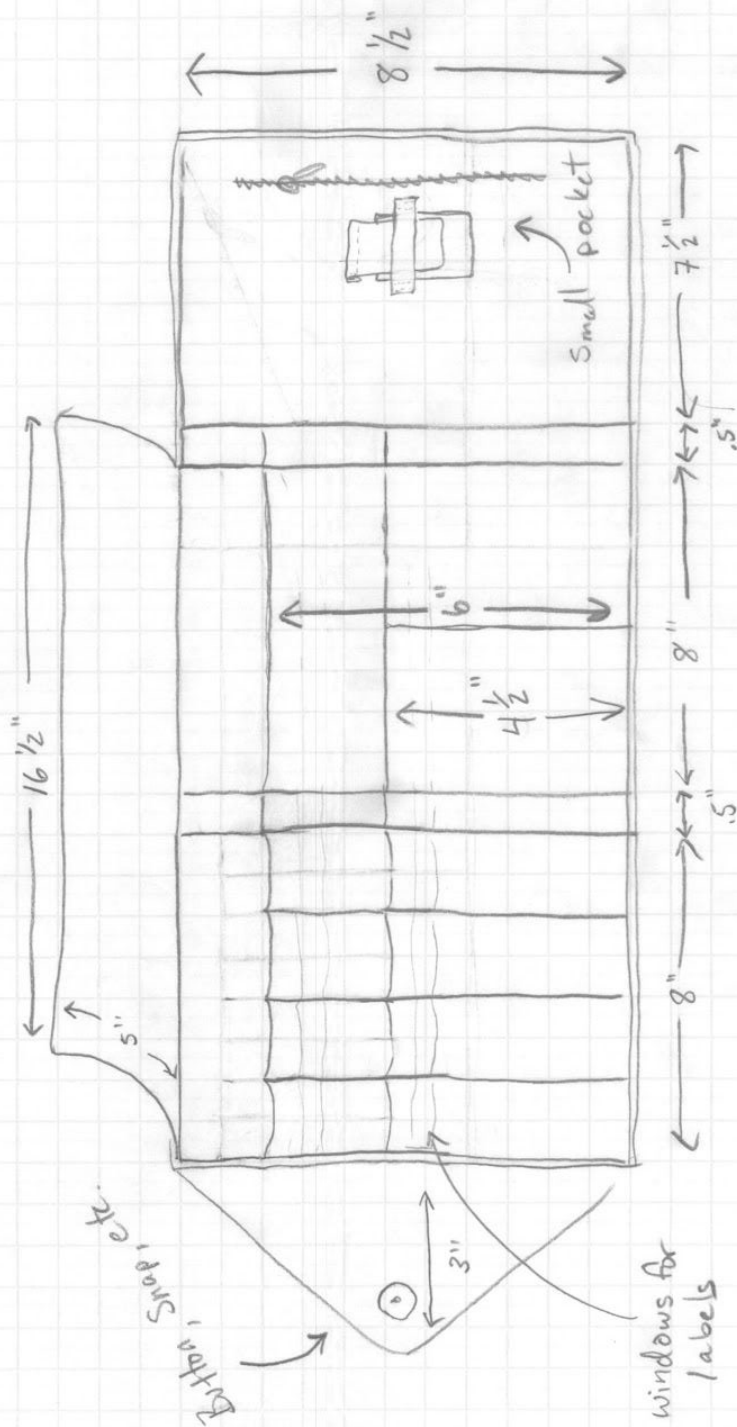
Slots:  $8\frac{1}{2} \times 4\frac{1}{2}$ "

Pocket:  $5 \times 8$ "

Flap:  $5\frac{1}{2} \times 3\frac{1}{2}$ "

Extension:  $3\frac{1}{2} \times 6$ "

# Knitting needle "wallet"



Seam Allowance: 1/4"  
 Cut Pieces:  
 Main Back Panel: 1/4" + 8 + 1/2 + 8 + 1/2 + 7 1/2 + 1/4 = 25" wide x 9" high  
 Tall Pockets: 17 1/2 x 6 1/4 (OR 17 1/2 x 12 1/2 if doubled)  
 Short Pockets: 17 1/2 x 4 3/4 (OR 17 1/2 x 9 1/2)  
 Flap: 17 x 5 1/4 (OR 17 x 10 1/2)  
 Pocket: 8 x 9"  
 Snap Piece: 3 1/2 x 9"