

Courtney's Masks *En Masse* Method

This is an illustrated set of instructions for making reusable, pleated cloth face masks with filter pockets, with additional notes on how to make them more efficiently if you're sewing several! There are also modifications at the end if you're making child-size masks!

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Materials & Equipment

- Lightweight, tightly woven, 100% cotton fabric
 - "Quilting cotton" works great and comes in fun patterns!
 - Have at least two kinds of fabric in order to contrast the outside of the mask with the inside.
 - You will need at least ONE 9"x6" piece of "outside" fabric and TWO 9"x7" pieces of "inside" fabric
- Material for the ties
 - You can use bias strips (homemade or store bought), tube ties, elastic, or ribbon, but ribbon is the fastest and easiest
 - I recommend cotton or cotton blends because they don't slide around like satiny ribbon. Avoid anything too thick, like cord, because it will be hard to stitch over.
 - Elastic isn't adjustable or as durable, but might be easier for children's masks (see below).
- Ruler
- Scissors
- Pins and pin cushion
- Sewing machine
 - Make sure you're using a new, Universal needle when you begin; dull needles will have a hard time going through all the layers of fabric at the end and could break and/or jam your machine.

Instructions

1. Cut out ONE 9"x6" piece of "outside" fabric and TWO 9"x7" pieces of "inside" fabric (increase width to 10" to make a wider mask; increase length 1-2" to make a longer mask to cover a short-medium beard).



En Masse:

- a. Fold your piece of outside fabric to the correct width as many times as needed to best use up the amount of fabric you have:
 - i. Standard fabric widths are around 44" or 60" wide, so if you have a 44"-wide piece of fabric, fold it over parallel to the straight-grain five times, each section just under 9" wide (your mask's width).
 - ii. For 60", fold into ten 6" sections (the length of your mask's outside piece).



- b. Now fold again parallel to the cross-grain:
 - i. For 44" fabric, fold in 6" sections until all the fabric is folded.
 - ii. For 60" fabric, fold into 9" sections until all the fabric is folded.



- c. Hold the fabric in place and cut along the cross-grain folds, then along the straight-grain folds until you have a big stack of 9"x6" fabric pieces! (This is not a precision cutting method and I wouldn't recommend it for other things, but since we're doing basic rectangles, they don't require a high degree of accuracy!)



- d. Repeat with inside fabric, now measuring pieces 9"x7".
2. Make or cut the ties so that you have FOUR 18" strips per mask.



En Masse: If making several masks, do each of the remaining steps for all your masks like an assembly line before moving on to the next step! This will save you time because you won't be switching between different tasks and changing your sewing setup between each mask.

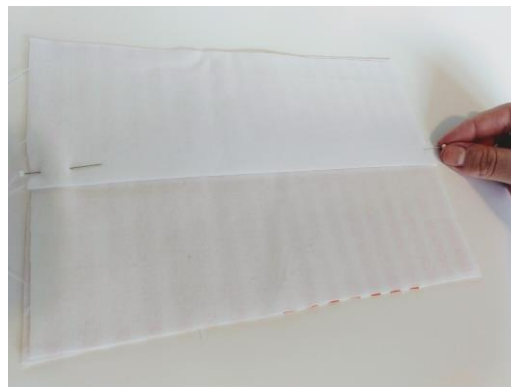
3. Grab your stacks of outside and inside fabric and get ready to start pinning!
 - a. Lay a piece of outside fabric right side up.
 - b. Fold a piece of inside fabric in half lengthwise, wrong sides together, pressing the fold with your fingers so it stays.



- c. Lay folded inside on outside so that corners are aligned.
- d. Fold another piece of inside the same way, but lay this one on the opposite corners so that the insides overlap about 1”.



- e. Pin each side of the overlap so that all three pieces stay together. Insert the pins lengthwise, point toward the inside of the mask – this will hold the pieces flatter, make it easier to remove the pins while sewing, and avoid pins poking your hands! ALWAYS USE A PIN CUSION! Pins in your mouth or loose on a table are dangerous!
- f. NOTE: I prefer silk/glass-head pins because they're thinner and longer, and thus hold better with less fussing than standard pins.

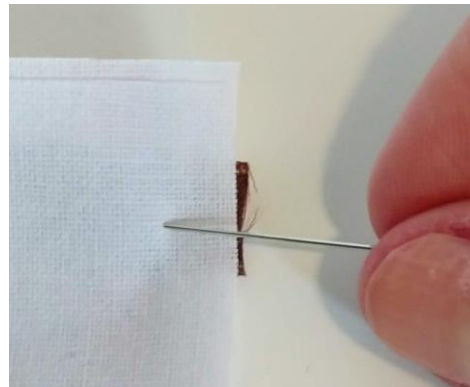


- 4. Grab your strap pieces for some more exciting pinning!

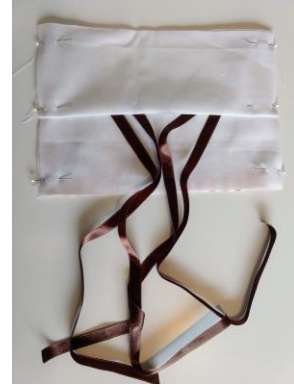
- a. NOTE: At this point I'll refer to the 'overlap side' of your mask as the top and the underlap side as the bottom. Pictures will be oriented top up whenever possible.
- b. Poke two straps under the underlap so that they come out the bottom slightly, between inside and outside pieces, and most of the strap dangles out from the middle of the mask, between the two inside pieces. Place the other two straps under the overlap in the same way, so that stick out the top and middle.



- c. Lift up one corner of your inside fabric, holding its corners together but separate from the outside piece.
- d. Place one strap end aligned with the side edge, but $\frac{1}{4}$ " in from the top/bottom edge and pin in place. The idea here is to place the strap ends within the seam allowance of the sides, where they will be stitched, but outside the seam allowance top and bottom.



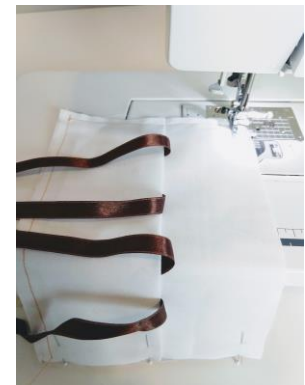
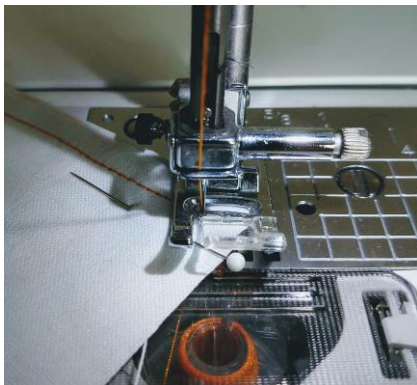
- e. Repeat with remaining corners until all four straps are pinned in place. You should now have six pins in place, three along each side.



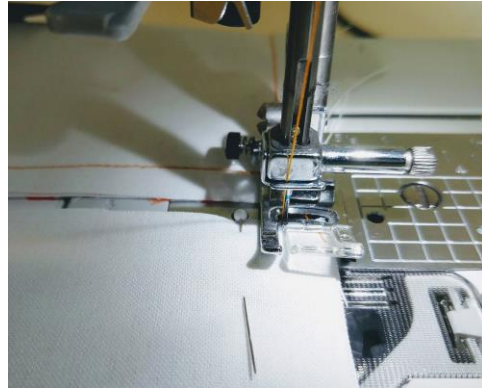
5. Time to sew! Make sure all pieces are in the correct position, because there's no going back after this!
 - a. Pull all straps through the overlap as much as possible, leaving only the pinned end in place (otherwise they could get caught in the stitches and cease to be functional).
 - b. It doesn't really matter which corner you start at, but I like to begin by stitching across the top because it's an easy section to stitch and creates a solid baseline that helps keep the fabric from shifting as you sew the rest.
 - c. Stitch along each side in a continuous line with a $\frac{1}{4}$ " seam allowance, taking care to keep the straps clear of the top and bottom stitch lines as you go. Remove pins as you approach them – NEVER stitch over pins!



- d. To reinforce the corners and help them lay flat, stop sewing just shy of where the corner will be with the needle down, lift the pressor foot, and rotate the fabric about 45° . Sew about two stitches, backstitch over them, stitch forward over them again, rotate another 45° , and continue sewing the next part of the stitch line.



En Masse: Chain stitch to sew more, faster! When you reach the last corner of one mask, stitch off the end of the fabric, and, without lifting the needle or cutting the threads, lay the first corner of the next mask under the pressor foot and proceed to sew that mask. If the previous one starts to get in your way, just snip the bit of thread connecting them and continue sewing!

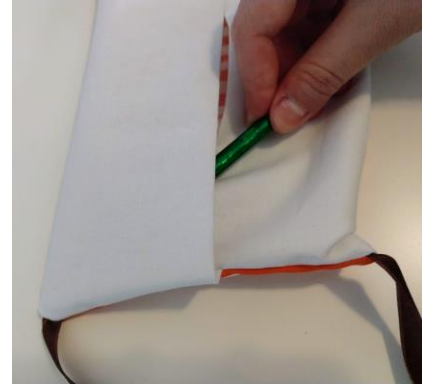


6. Clip the corners and turn!

- a. Trim off some seam allowance at each corner, on a 45° angle, outside the seamline. This reduces bulk to help the corners lay flatter.



- b. Turn the mask so that it's now right side out and give each strap a little tug to pull the corners straight (bonus: this ensures your straps are secure!).
- c. Use something like a capped pen or eraser end of a pencil to poke the corners and seams out, then finger press them flat.



7. Pin the pleats!

- a. Pinch the top of your mask just below the straps (about 1" down from the top) and fold that 1" section back so that the insides touch.



- b. Fold that fold forward again so that it touches the mask front, creating a pleat.



- c. Pin this pleat in place on each side.



- d. Now pinch the middle of your mask, feeling for where the underlap ends, and fold mask backwards roughly in half.
- e. Fold that fold forward, as before, and pin.



- f. With the pleats spaced out this way, you should end up with the overlap tucked neatly into the bottom pleat of the back and the underlap tucked into the top pleat. This minimizes fabric bulk on the sides, keeps the overlap from sticking out under your nose, and still allows easy access to the filter pocket.





8. Once more to the sewing machine!

- a. Place mask on the machine so that the bottom of it goes under the pressor foot first – this allows the feed dogs to help keep the pleats on the other sides in place instead of pulling them loose.
- b. It's often best to start with the needle just inside the seam bulk so that the bulk doesn't cause the thread to tangle, backstitch over the bulk to flatten it, then stitch forward about $\frac{1}{4}$ " in from the side (just inside the seam bulk).



- c. Stitch a straight line to the top of the mask, pausing to lift the pressor foot and make sure the pleats are aligned under it as you go.
- d. Backstitch at the top to secure the stitches.
- e. Repeat on the other side without rotating mask, in order to allow the feed dogs to help hold the pleats in place.

En Masse: This is another place you can chain stitch! After you backstitch the top of one mask, stitch past the end and place the next under the pressor foot. You may need to gently pull each subsequent mask in order to get over the seam allowance bulk. Be sure to backstitch at the bottom, too, to secure the stitches. Once you finished one side of all your masks, cut the thread and start again with the other side of the first one!



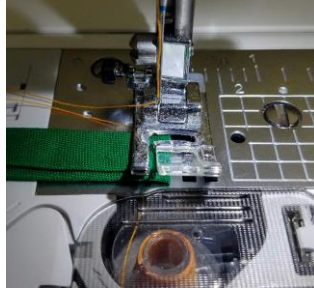
9. Press the mask

- a. Heat your iron to medium/Cotton setting.
- b. Using steam, press iron first to one side, then the other, and finally in the middle of the mask. Hold in place for a few seconds each time you press, rather than moving the iron, to set the pleats.



10. Finish the strap ends, and you're done!

- a. Depending on the material your straps are made of, you can finish the loose ends in different ways so that they don't fray or come unwound.
 - i. Knot them. This is a good option for cotton ribbon as the cotton fibers should hold the knot in place well, and the knot will prevent the end from fraying past the knot.
 - ii. Stitch them. Good for any fabric – just run a line of stitches along the loose ends to stop any fraying at that point.
 - iii. Burn them. ONLY works with polyester blends (30% poly or more). Gently singe the ends over a candle, NOT a lighter – you need to hold the fabric carefully and not be messing around with the flame at the same time. The heat will melt the plastic in the synthetic fabric blend, which will hold the ends when cooled. You should be able to hold end high enough above the candle that it melts without catching.



Congratulations, you are now a mask master!



Modifications for Children's Masks

The steps for children's masks are generally the same; the sizes of the pieces are the main difference. You may only be able to get fit pleat in the smaller size; this is fine as long as the expanded mask covers the bridge of the nose down to the chin. NOTE: masks are not recommended for children 2yrs or younger.

ONE 7"x5" piece of "outside" fabric

TWO 7"x6" pieces of "inside" fabric

TWO 40" (measured when stretched) pieces of elastic (best to measure this based on the individual child since you won't be able to adjust the fit)

[or FOUR 16" straps (straps are more adjustable, but younger children may have a hard time with the ties in the back)]

Sewing Terms

Straight-grain: The warp/"vertical"/"long" grain of the fabric. If you look at the sides of your fabric piece, you will see a tightly woven area with holes in it, usually a different color than the rest of the fabric: this is the selvage edge; the edge that was on the loom "vertically"/"lengthwise" as the fabric was woven. The grain of the fabric parallel to this is the straight-grain.

Cross-grain: The weft/"horizontal"/"wide" grain of the fabric. This is the grain perpendicular to the selvage edge, and thus to the straight-grain.

Bias: The diagonal in between the straight- and cross-grains. Not technical a "grain" because fibers don't run in that direction on most weaves, this term describes the diagonal of the fabric, which is stretchier than either grain because the warp and weft can pull away from one another here. We're not using bias cut fabric here, but it's good to know.

Right side: The "outside" of the fabric; the side with the pattern on it. Some fabrics don't have a significant distinction between right side and wrong.

Wrong side: The "inside"/non-pattern side of the fabric.

Seam allowance: The distance between the raw/cut edge of the fabric and where you will stitch. Stitching too close to the edge can cause the stitches to come loose as the fabric frays; too far, and it could create too much bulk. Standard sewing patterns include a 5/8" seam allowance. I use a 1/4" seam allowance here because 5/8" creates too much bulk. Handy tip: whatever the standard pressor foot for your sewing machine is, it's probably 1/4" from where the needle goes down to the right edge of the foot.

Notes About Mask Use

- Wash your mask in soapy water and line dry before each use – reusing without washing defeats the purpose.
- Handle your mask from the straps only – the front part is where the germs live.
- Once you put your mask on, keep it in place until you can take it off and wash it and your hands. Taking your mask off and on, lowering it to talk to someone, etc. increases the chances you're getting germs on your hands and exposes your face, which defeats the purpose of having it in the first place.
- These masks have a filter pocket into which you can place a piece of more heavily filtering, breathable material for additional protection.
- Cotton masks are NOT medical grade and are intended to be used IN ADDITION to social distancing practices. They do not provide adequate protection in a hospital or other setting with people in close quarters or with a higher rate of illness.