

N95 STYLE MASK PATTERN

By Molly R. Smith

Disclaimer: I am not a medical professional, I am a professional sewer. **This is not a N95 mask.** N95 masks are manufactured with specialized materials and equipment to provide full respiratory protection. In this time of crisis and supply shortage this is my attempt to engineer a mask that provide the best protection we can to our medical workers facing PPE shortages.

This pattern is more complicated than the surgical style masks that many hospitals have requested but if you have any experience sewing then it is pretty simple to make. I have made this pattern and guide for those looking to donate masks to medical facilities. If you want to make your own personal mask, I would ask only that you also make at least one for donation as well.

NOTE: For the purpose of this tutorial I will not be wearing gloves. If you plan on donating masks please take all reasonable precautions! Sterilize your sewing environment and wear gloves and a facemask. **DO NOT make masks for donation if you are in any way sick!!**

THANKS FOR YOUR INTEREST! LET'S GET STARTED!

MATERIAL LIST:

Fabric

Elastic (woven)

Aluminum Strip

Clear elastic

EQUIPMENT:

Sewing Machine with straight and zigzag stitches

Iron (not necessary but perhaps helpful for beginners)

Fabric- .25 yards

-The word has gone out that cotton is where it's at! This makes a lot of sense, as woven cotton fabrics are easily accessible to home sewers. If you

are using cotton, you want a tightly woven flat weave cotton fabric. For my cotton mask below, I am using tightly woven cotton sateen.

Medical grade surgical masks however are made from non-woven polypropylene fabrics. I could not find a medical fabric supplier, but I found a non-woven polypropylene fabric to use in my own mask donations. From the studies I have read, this fabric is far superior at filtering. I am waiting for confirmation from a PPE expert that non-woven polypropylene fabric is the preferred fabric choice. Once I hear back I will update the pattern.

Elastic- 26”

The ideal is a .25” woven elastic but it is selling out rapidly. Round elastic will also work. Use what you can within the bounds of common sense.

Aluminum Strip- 3.5”

This will be the hardest material to come by but it is also arguably the most important for this style mask. The strip I used below was taken from a used N95 mask and sterilized for the purpose of this tutorial. I have flat 5mm aluminum wire on order currently. Anything wider and you will have a hard time installing it. Disclaimer: **PLEASE DO NOT USE ANYTHING SHARP OR POINTED IN MASKS FOR DONATION, THESE ARE FOR PEOPLE’S FACES!**

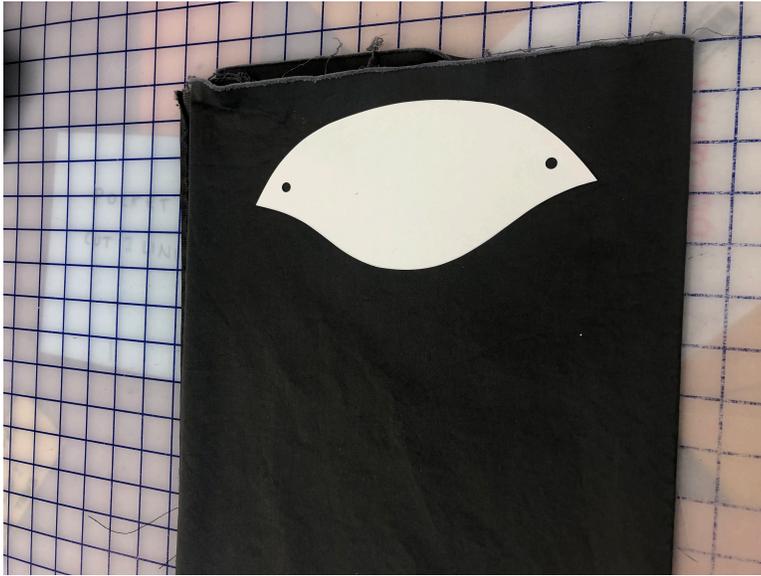
.25” Clear elastic (optional)- 24”

This elastic is not for gathering or stretching! I used this elastic along the edge of my prototype for two reasons. The first is that I believed it would help keep the mask in place and the second is that I hoped it would create a tighter seal.

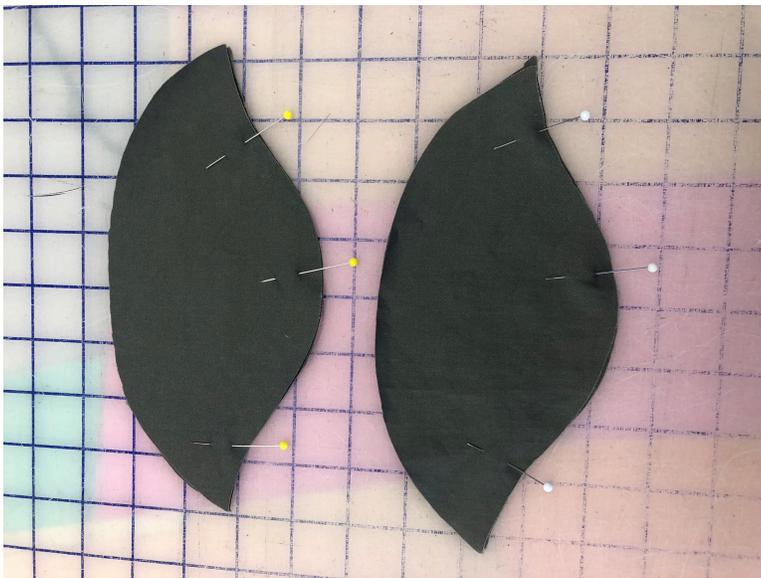
SEAM ALLOWANCES are .25” and included in the pattern.

INSTRUCTIONS:

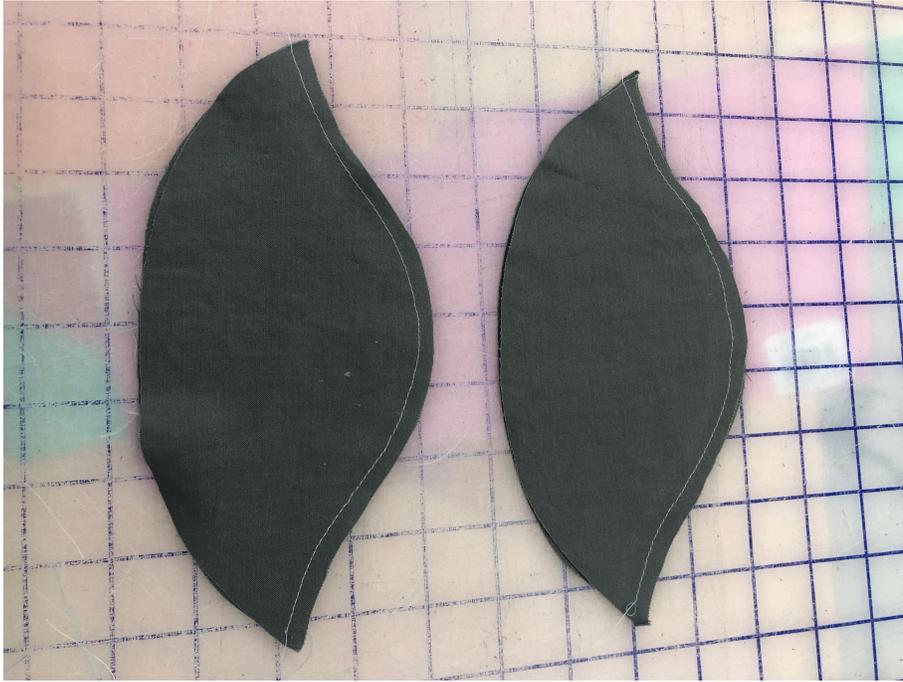
1. Cut four of the pattern pieces. Two pieces will be used for the outside and two are for the inside. If you are using a rotary cutter you can layer your fabric for ease and speed.



2. Pin each pair, right sides together along tapered edge.



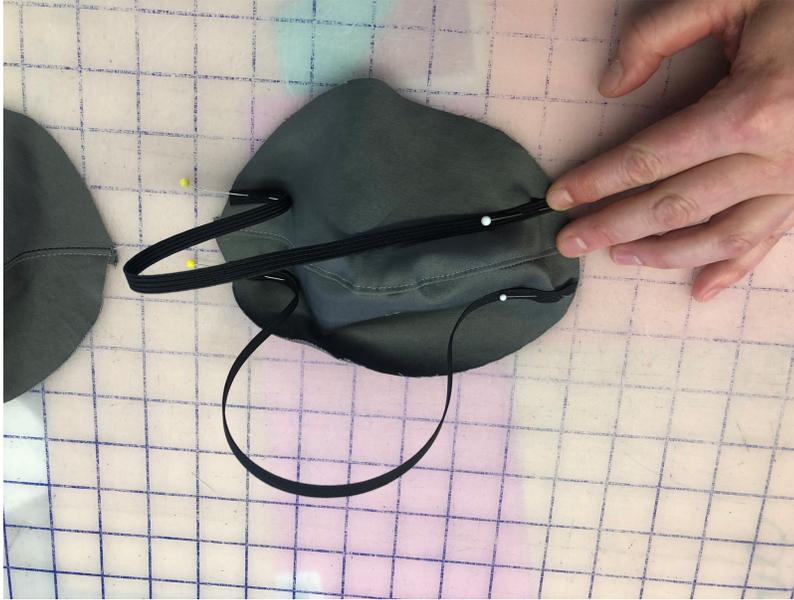
3. Sew along pinned edge for both pairs.



4. Press seam allowance to one side and top stitch down center. You can use an iron to press the seam allowance to one side.

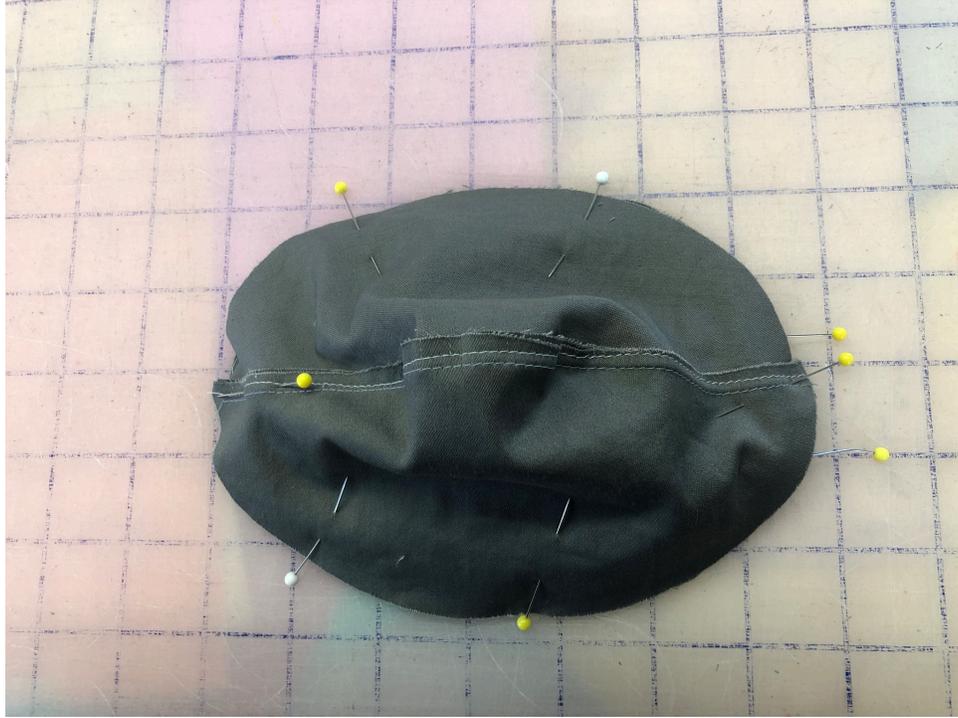


5. Cut elastic into two 13” pieces. Choose a side and pin elastic where marked on pattern. NOTE: in this pattern we are not using ear loops! The elastic will go from one side of the mask to the other (around the head) on both top and bottom). Baste in place or keep pinned.



6. With right sides together pin the inner and outer masks together aligning both side seams. Pro Tip: for a less bulky seam, flip one mask so your seam allowances are pointed in opposite directions! NOTE: I have done the seaming this way on purpose so there are no gaps in the seams. For this reason, avoid pressing your seams open!





7. Stitch the perimeter of the mask being sure to leave a 1" gap at the top between the start and the finish of the stitch.



8. Using the gap you left, turn the mask right side out.



9. Top Stitch Around the edge of your mask, closing the gap you left on the top. If you are using the clear elastic, you can topstitch this to the back side of your mask!



10. Create a .5" pleat centered on the bottom of the mask. Stitch in place.



11. Flip the mask to the right side and pin the metal piece in place as marked on the pattern piece.

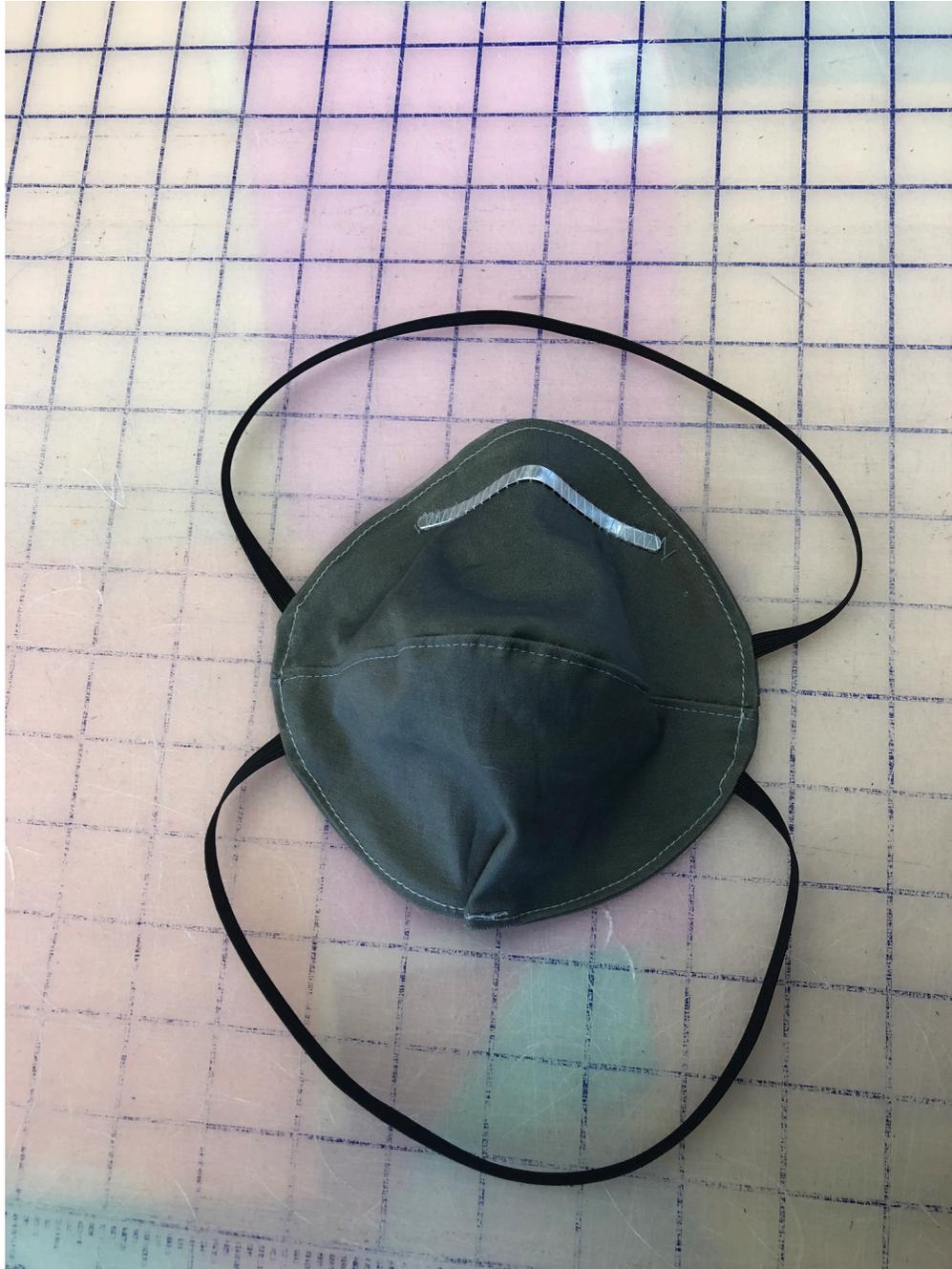


12. Set your machine to zigzag and adjust the stitch width as high as it will go (My home machine will go to 7). Being very careful, start at one edge and zigzag down the length of your metal band. Make sure to use the hand wheel at first to make sure your stitch is wide enough.

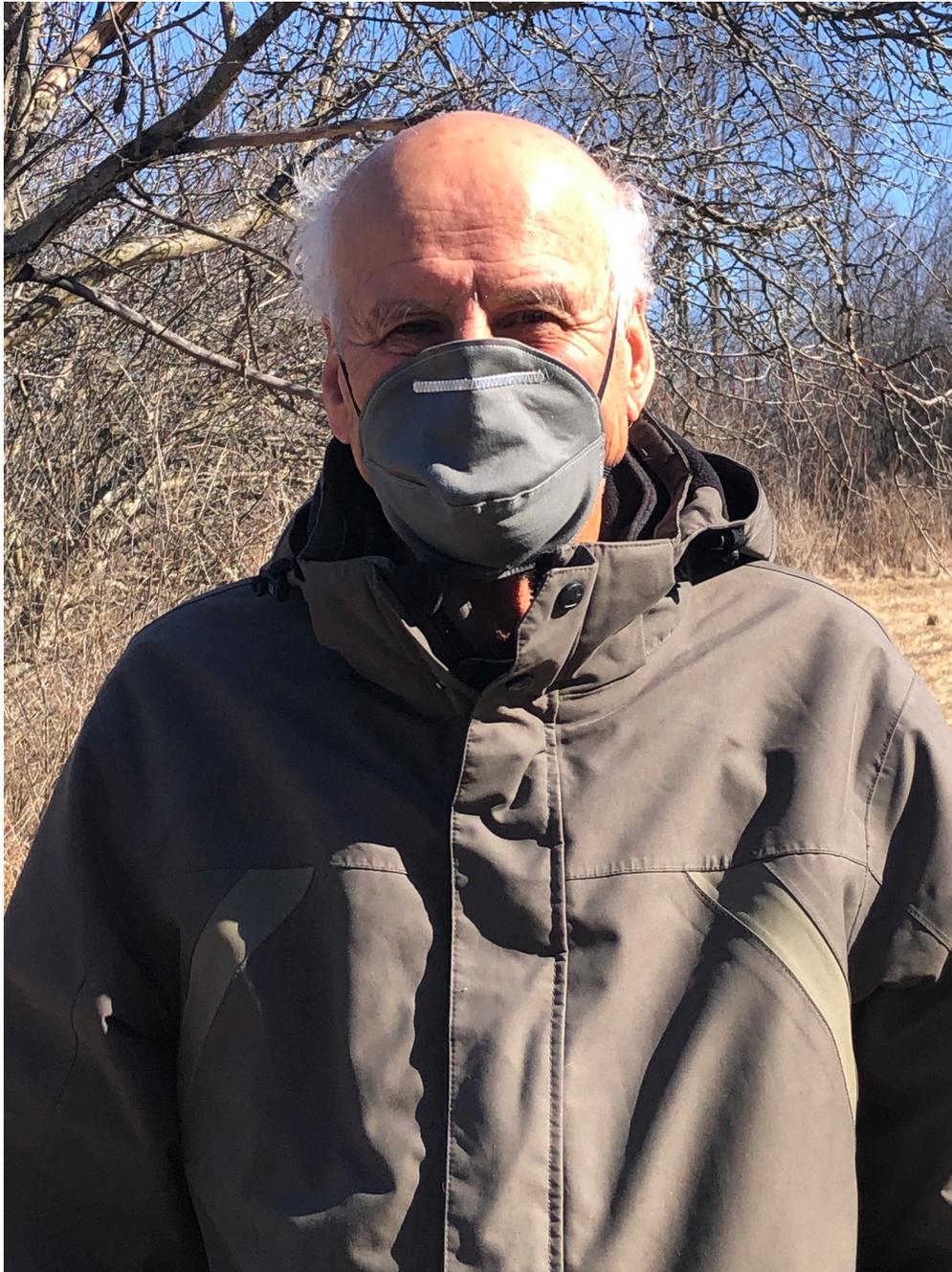


13. You're done! Seal that puppy in a new re-sealable plastic bag and send it off to one of our hard working medical heroes!

**DO NOT PUT THE MASK ON YOUR OWN FACE TO TEST THE FIT.
DO NOT PUT IT ON YOUR DOG, CAT, FERRET OR GOLDFISH!**
(Although I'm sure it would look ADORABLE)



(With Nose Bridge bent into shape)



(Modeled by a member of our esteemed elderly population...thanks dad)

Thanks to everyone who is putting in the work to stop this thing! Keep it up!

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MASK PATTERN

