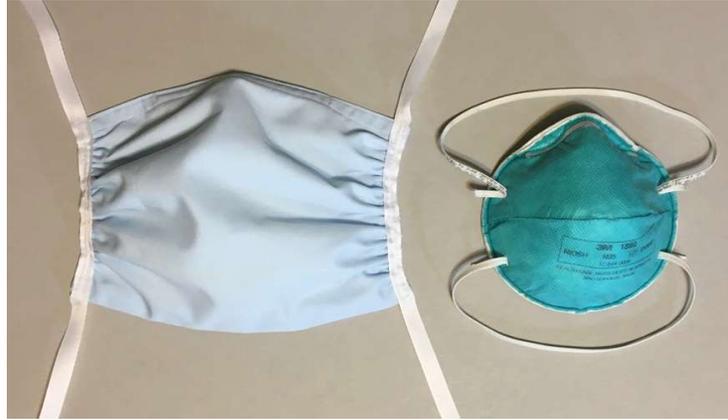


## Fabric Cover for N95 Mask



N95 masks (also called respirators, pictured on right above) are healthcare-grade masks that are designed to protect the wearer from inhaling infectious airborne organisms. Unlike common surgical masks, they have to be fit-tested to the face because the wearer is supposed to breathe *through* the mask with minimal airflow passing between the mask and the face.

By comparison, common surgical masks are designed to keep the wearer's own potentially infectious droplets from dispersing into the air around the wearer or from landing on surfaces, where they could get passed on to others who touch these contaminated surfaces.

N95 masks are an essential part of the personal protective equipment (PPE) that healthcare workers must have as they care for patients with COVID-19 or as they test patients for this pathogen. PPE is in critically short supply as the global pandemic continues. Due to the unprecedented nature of this global health emergency, health departments are issuing recommendations about the limited and judicious reuse of PPE to stretch limited supplies as far as they can reasonably go. This has never happened before, as we have never before faced a threat of this magnitude in the era of modern medicine.

The purpose of this tutorial is to share a pattern for making a fabric cover for N95 masks. This is intended to provide a resource (mask covers) for the healthcare workers on the frontlines of the battle against COVID-19. These workers can wear the cover over their N95 masks to prevent the outside of the N95 masks from getting contaminated by patients' secretions and having to be discarded.

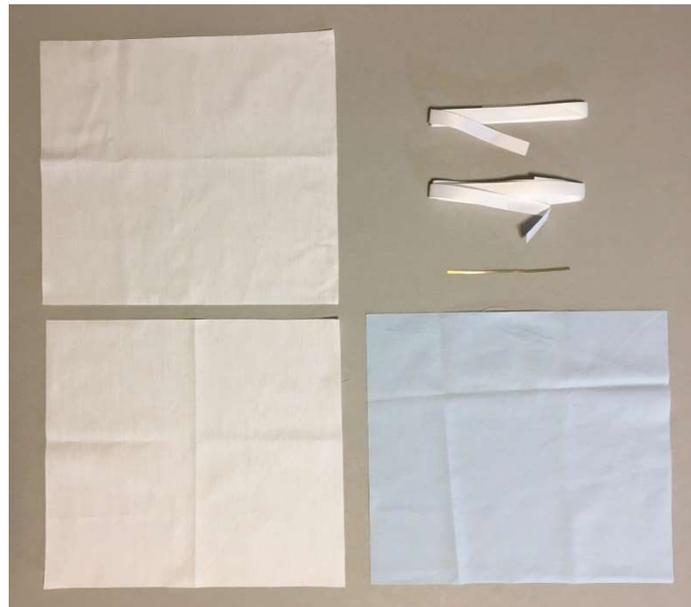
These mask covers have been designed with the following in mind:

- Washable by laundering
- Durable
- Completely cover the N95 mask
- Light, solid colors so that any soilage is easily visible and the worker knows they need to replace the cover
- Multiple layers of fabric to decrease the likelihood that secretions that get on the outer layer reach the inner layer and ultimately the N95 mask
- Different color on outside versus inside of mask so that the worker knows which side to wear against their N95 mask (covers are actually reversible, but this lets the worker distinguish the two sides of the mask easily)

**Please note:** While these mask covers could be worn as masks by people without an N95 mask, they would not be protective to the wearer. They would *only* protect others from the wearer's own respiratory droplets. **Remember, social distancing and good and frequent hand hygiene is your #1 line of defense against COVID-19!**

## Materials:

- Fabric of 2 different solid, light colors. These could be cotton or a poly-cotton blend. 100% cotton should be pre-washed to prevent finished masks from shrinking.
  - 1 10" x 9" piece of color A
  - 2 10" x 9" pieces of color B
- Material for ties: 2 pieces, each 44" long. The model uses ½" wide twill tape. ½" Bias tape or ¼" grosgrain ribbon could be used. The material should be washable, durable, and not slippery.
- Wire, 4". This needs to be sturdy enough to get pinched down over the wearer's nose so that it holds its shape. It could be craft wire (not finer than 20 gauge). It should not be a material that will rust or corrode because mask covers must be washable.



## Instructions

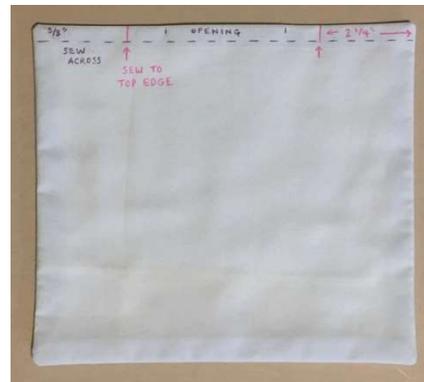
1. Layer all 3 pieces of fabric, with fabric A on top.



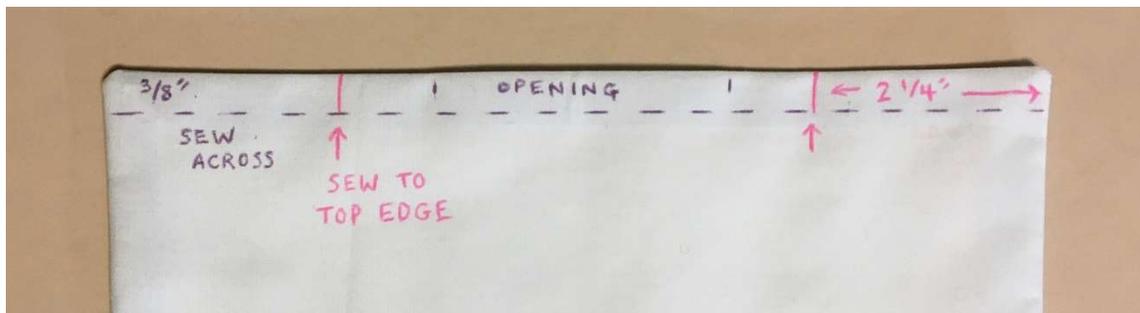
2. Pin all layers together and sew, using a  $\frac{1}{2}$ " seam allowance and **leaving a 3" hole that is centered along one of the long edges of the fabric** (red arrows). This will be the center top of the mask.



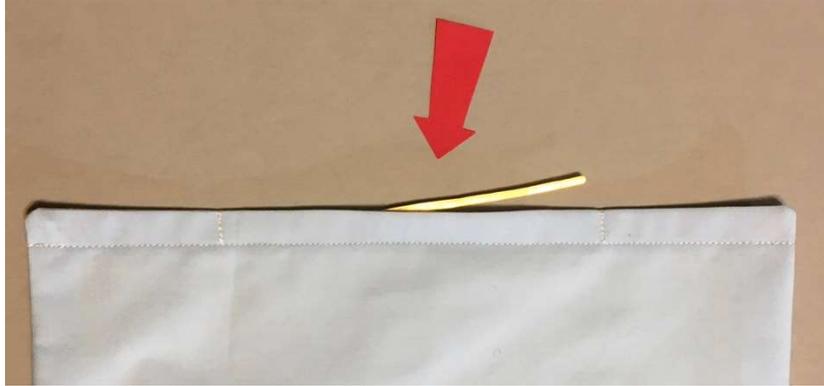
3. Trim corners, turn right side out and turn the raw edges of the opening under. Press.



4. Sew a line across the top of the mask,  $\frac{3}{8}$ " from the edge (purple dashed line). Then measure in  $2\frac{1}{4}$ " from the sides and sew vertical lines (pink solid lines) from the horizontal stitch line to the top edge of the mask.



5. Insert the wire into the space you created in Step 4. Push it down to the horizontal sewn line.



6. Sew across the top of the mask, sewing close to the edge. Be careful not to strike the wire with your needle!



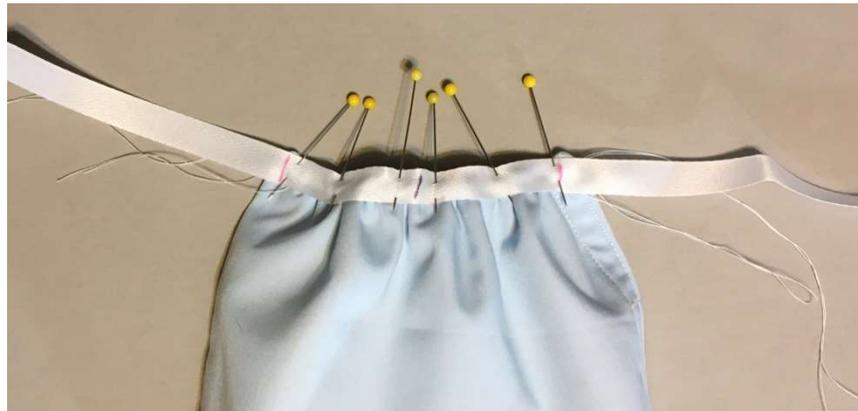
7. Increase the stitch length on your sewing machine to its longest length. Leaving 4" thread "tails," sew two lines of stitching along both short edges of the mask, 1/8" and 1/4" from the edge of the mask.



8. Pull on the bobbin thread "tails" to gather the edges of the mask down to a length of  $4\frac{1}{2}$ ". Repeat with the other side of the mask.



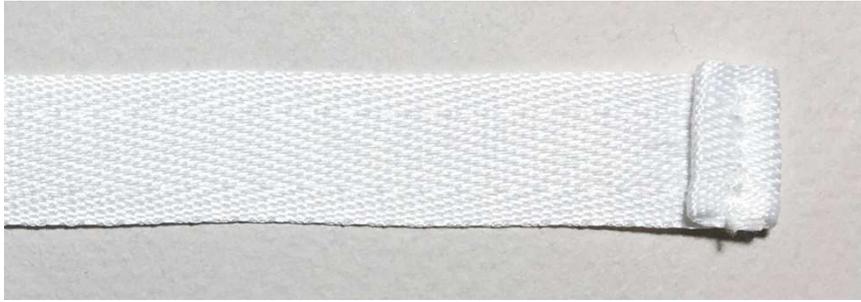
9. Fold one of the tie pieces in half to find its center. Pin this to the center of one of the sides of the mask. Model shows it pinned it on the side with fabric A. In the illustration, purple mark on the tie is the center, with pink marks 2" on either side of center. Your goal is a final gathered edge  $4\frac{1}{2}$ " long. Repeat with the other side of the mask.



10. Return sewing machine to routine stitch length. Sew the tie to the mask using two lines of stitching about  $\frac{1}{8}$ " apart. Be sure to backstitch and secure thread ends well. Repeat with the other side of the mask.



11. Secure the cut ends of the ties so they don't unravel in the laundry. Ends on the model were folded under and sewn. Depending on the tie material, other methods, such as Fray Check, could be used.



12. Finished!

