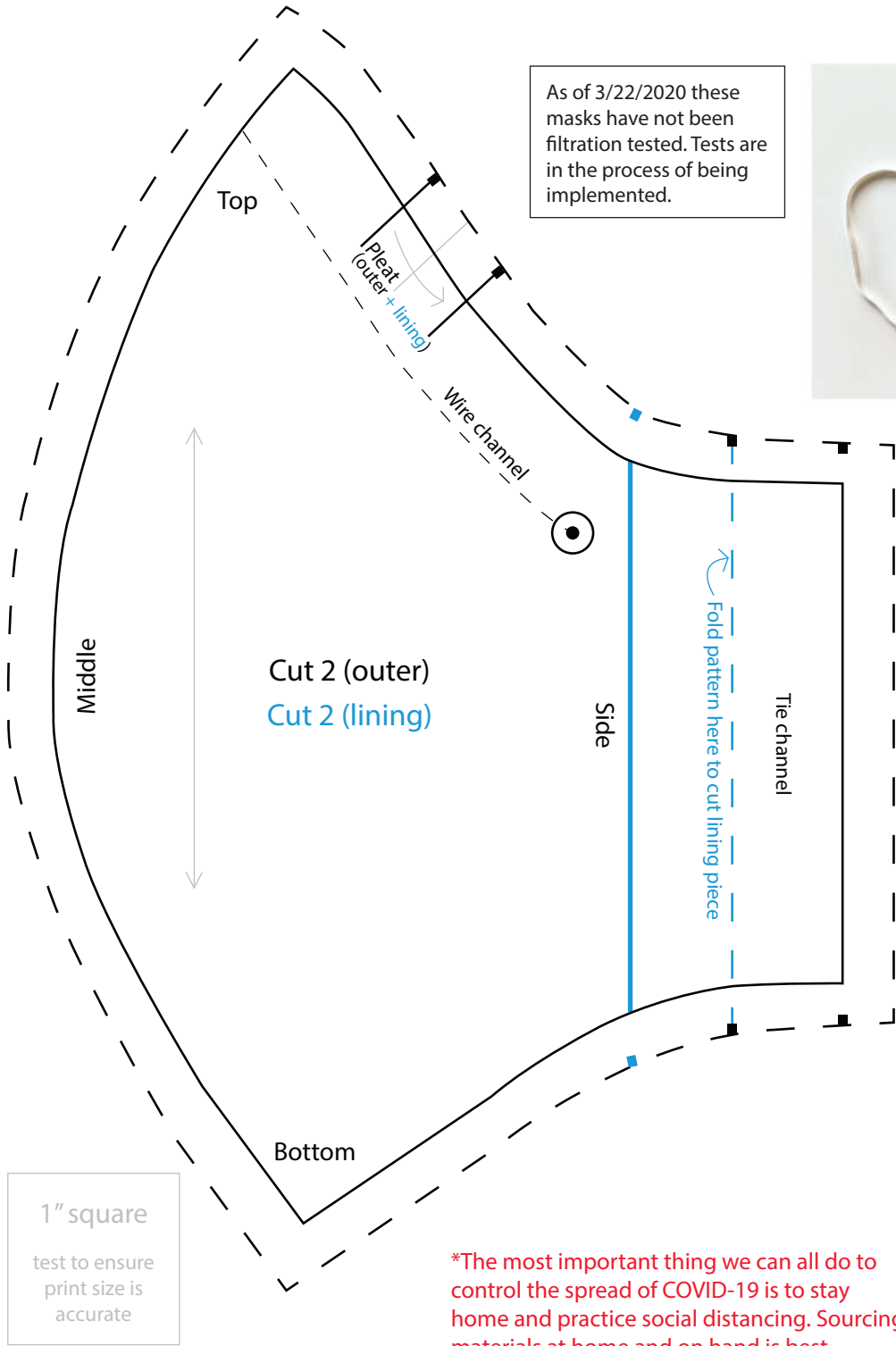


# Cotton Face Mask with Pocket

The World Health Organization and other authoritative sources have written that in times of urgent need and no other options, offering a means of breathing protection is better than no protection for healthcare workers, patients in a hospital, and people in the community at large. In a Cambridge University published study, homemade masks using filter material as simple as a vacuum cleaner bag functioned equivalently to a commercial surgical mask. The design offered here allows you to make such masks from construction and filtering materials available on hand.

- N95 masks filter 0.3 microns
- Surgical masks filter 0.3 microns (likely less since it's not fitted)
- Furnace filters: 0.3 - 50 microns (Must remain in honeycomb pattern for micron rating. Filters made of fiber glass may be harmful to breathe.)
- Vacuum cleaner bags (HEPA approved): good filters are 0.3 - 1.5 microns (may be difficult to breathe through.)
- Coffee filters: ~20 microns

As of 3/22/2020 these masks have not been filtration tested. Tests are in the process of being implemented.



## Materials:\*

- Cotton fabric (tightly woven) - 11"x16" or 1/4 yard x 22" (using two different colored fabrics may be easier)
- Ties (elastic, string, or shoelaces) - 2x10" ties for around the ears (elastic) or 2x32" ties for behind the head (string)
- Wire (20-25 gauge, copper wire, floral/wreath wire, hangers, bag twist ties, pipe cleaners) - 4"
- Filter material (furnace filter, vacuum bag, coffee filter) - cut to 5" square with rounded edges
- Thread

## Directions:

1. Wash fabric in hot water and dry on high heat before sewing. Press fabric.



2. Place pattern on fabric and cut two outer pieces. Mark fabric where all black boxes appear in seam allowance (SA). Fold pattern on blue dashed line and cut two lining pieces. Mark fabric where all blue boxes appear in SA.



3. Press the sides of each piece - 1/4" and 5/8" on outer piece. On lining press 5/8", then press half of the 5/8" SA into seam to hide raw edge.



4. Sew lining edges only. Do not sew outer edge pieces at this time.



5. Place the two outer pieces right-side together and sew the middle seam. Press the seam open (edge of ironing board works well). Repeat with lining pieces.



6. Pin nose pleats on both outer and lining pieces. Place the two pieces right-sides together and sew the top and bottom. Start and stop at lining edge (DO NOT sew over outer tie channel).



7. Turn right-side out and press the top and bottom seams (a wool dryer ball works well).



8. Fold the 1/4" SA on the top and bottom of the outer piece down and re-press the tie channel.



9. Sew the tie channel down 1/2" from the edge. Ensure outer and lining pieces are open on the side creating a pocket for the filter.



10. Sew the wire channel down 1/2" from the top edge. Do not sew past the tie channel seam.



11. Insert wire into wire channel and bend to fit nose. Insert ties into the tie channel (a tweezer helps).



12. Elastic will wrap around the ears while the string will tie behind the head. Tying behind the head results in a better fit. If using elastic, tuck knots into the channel.



13. Insert filter material into the mask pocket ensuring it fully covers nose and mouth.

14. Dispose of filter after each use (avoid self-contamination) and wash mask (in delicates bag) in hot water and dry on high heat. The wire and ties can be removed during washing to extend their life. If making masks for others, wash again prior to distributing.