

MakerMask: Fit (Beta)



The MakerMask: Fit is designed to wear as a stand-alone mask for droplet protection and filtration. The Fit design provides a water-resistant alternative to cotton masks that is optimized for fit. Ideal layering combinations for filtration are under investigation. See <https://makermask.org/> or contact us at info@makermask.org for the most up-to-date information about material substitutions, available testing data, and preferred layering options.

For experienced/advanced sewists. Consider testing with scrap material first.

Materials & Tools



- **3 pieces of non-woven polypropylene (NWPP)** sourced from pre-washed shopping bags. Check for tag in bag indicating '100% Polypropylene'. If ironing use lowest possible setting and test on sample. Number of layers may be adapted to account for variable bag thickness. Check <https://makermask.org/> for additional information.
- **1 Nose Piece** made from 3 pipe cleaners twisted together for rigidity. Common substitutions include paperclips or 16 gauge wire (verify suitability for boiling/autoclaving if using insulated or coated materials)
- **2 Cloth Ties, each 48 – 58" long** such as strips of cotton, bias tape, grosgrain ribbon or similar (materials should be latex-free and heat tolerant for disinfection/sterilization).
- **Thread**
- **Printed pattern** (see final page)
- **Sewing machine** and extra needles (size 14 or 16)
- **Scissors, pins, etc.**

Instructions

Step 1: Assemble Materials and Tools

Assemble materials and tools. Print out the mask pattern on Letter-sized (8.5" x 11") or A4 paper. Check that the measurements shown on the reference square of the printed page are accurate.

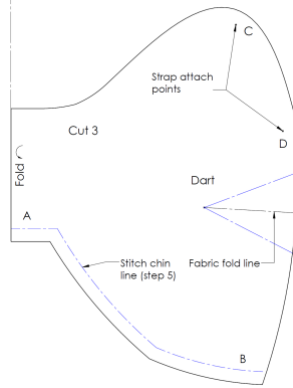
Step 2: Cut out Pattern and Materials.

Cut the pattern out. Use the pattern to cut three pieces of NWPP on the fold.

These instructions do not guarantee protection against transmission of any diseases. Commercially available masks meet regulatory guidelines, but homemade masks may not and are to be used at your own risk. Due to variability of materials and construction, the mask's safety or effectiveness for personal protection is not proven and cannot be assumed.

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Caution: do not use pins in the body of the mask; pinholes may reduce mask functionality.



Step 3: Top-Stitch NWPP layers together.

Topstitch the 3 layers of NWPP to hold them together (1/8" from the edge all the way around).



Step 4: Sew darts (bilateral) for fit.

Make the darts on the inside of the mask as indicated on the pattern using your preferred technique (e.g. pin, fabric pencil, or chalk). Sew darts (bilaterally).

Note: Default dart size on pattern is for a 'medium'; dart size can be adjusted to individualize fit. Warning: do not iron

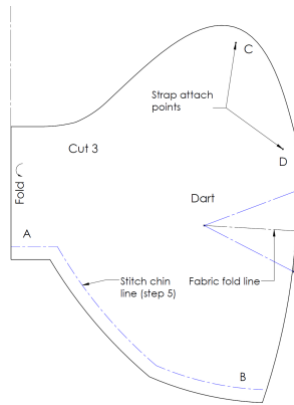


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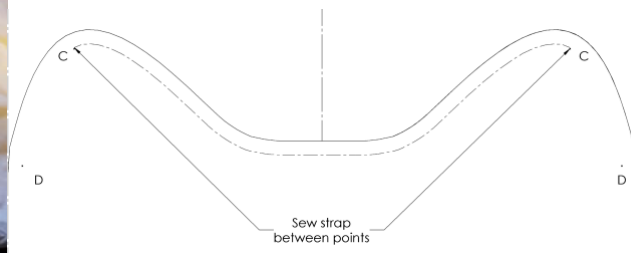
Step 5: Sew 'chin line' from A to B (see pattern).

Fold along the fold line, with right sides together. (You want the outside of the mask on the inside when you sew the chin line.) Sew the chin line, starting from the fold (A) to the edge (B), see pattern.



Step 6: Attach 'top strap' to mask (inside, top)

Open the mask, and center the top strap on the inside top edge of the mask (so that the 'right side' of the strap is facing the inside edge of the mask). Sew the strap to the mask from one attachment point (C, left) to the other attachment point (C, right). Then, turn the mask over so that the outside of the mask is facing up.



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Step 7: Create 'nose piece' for mask.

Twist three pipe-cleaners together to increase rigidity. Cut pipe-cleaners to length of mask to create the 'nose piece'.

Note: In some cases, using half-length pipe cleaner centered at the nose may improve fit.

Step 8: Secure 'nose piece' to mask (outside, top).

Place nose piece on mask (outside, top). Fold top strap over nose piece, ensuring that it remains on top of the NWPP material. Top-stitch strap to the front of the mask to fully enclose the nose piece and secure it in place.



Step 9: Attach 'bottom strap'.

Center the bottom strap on the mask (bottom, inside), as in Step 6. Fold material across the bottom edge to the outside of the mask and topstitch to secure from D (left) to D (right) to create a finished bottom edge.

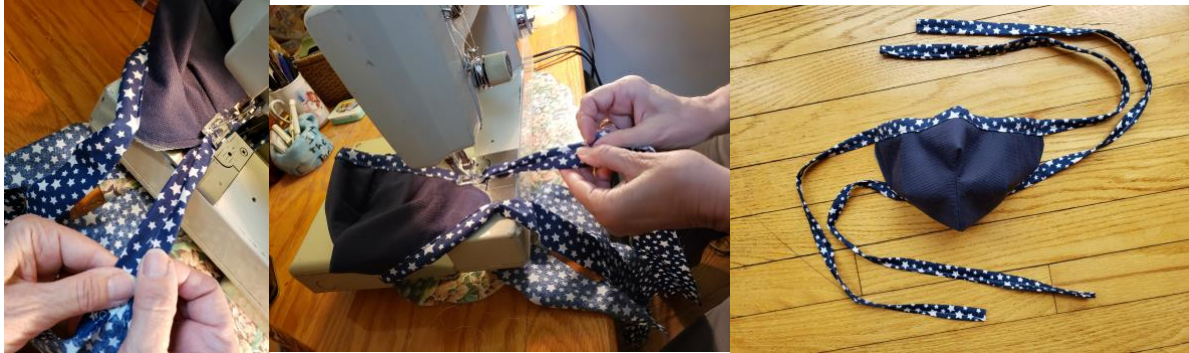


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Step 10: Finish straps.

Top-stitch the straps to finish (see images below).



Step 11: Disinfect/Sterilize before use.

Masks should be disinfected/sterilized before use. While autoclaving is ideal, home users can submerge masks in boiling water for 10 minutes for disinfection.



If you need assistance distributing your masks, we are partnering with the community to provide the best information as it becomes available. Check our website makermask.org for the latest information.

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Print on A4 or Letter-sized paper and cut out template

Maker Mask: Fit v1.2
www.makermask.org

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