Sewing a Coronavirus Face Mask  
by John W. Simek

I used the New York Times article (link below) as a basis for sewing washable face masks and made a few modifications.

<https://www.nytimes.com/article/how-to-make-face-mask-coronavirus.html>

The first decision is what material to use. Dish towels (100% cotton, no terry cloth) are a good choice. We happened to have a bunch of brand-new Williams-Sonoma dish towels in the linen closet. One gave up its life to transform into several face masks. Start by cutting a 9”x7” rectangle. Next step is to hem the 7” sides of the rectangle. If you use an iron to press the material, it will hold together better for sewing. Fold the material over approximately ¼” and iron it flat. Fold the material over itself again and iron the seam flat. Sew the seam. Repeat for the other 7” side.

The next step is to prepare the 9” sides for sewing and attachment of the tie strings. I purchased 36” flat white shoelaces for the tie strings. Cut the shoelaces in half so you are left with four 18” laces. Mark the cut end of the shoelace at 1”. I just used a Sharpie and put a dot 1” from the cut end. Like the 7” side, fold the material over approximately ¼” and iron flat. Fold the material over itself again and iron flat. Prior to sewing the seam, place the shoelace inside the folded material up to the 1” mark. I used the sewing machine to go back and forth over the shoelace (sewing along the 7” edge) three times to have a strong attachment to the material. Sew the other shoelace to the other side of the 9” edge. Sew the 9” seam.

I decided to stiffen up the final edge of the mask. I used a piece of 14-gauge electrical wire to make the mask tighter around the nose. I think a wire coat hanger would be too stiff and not bend very easily around your nose and face. I cut a piece of 3-conductor electrical cable approximately 7” in length. Take a utility knife and cut the jacket off the cable. Remove the black, white and bare copper wires from the cable. Prepare the remaining 9” side the same as the one just completed. Prior to sewing the seam, put one wire inside the folded material. In other words, “trap” the wire in the material. Sew the final seam.

As a final step, I folded the mask over as the NY Times article describes in step 7 to make the pleats. Instead of three pleats, I only folded over two pleats. Sew along the edges of the pleats. While I’m sure you could make the mask sewing by hand, a sewing machine will make a more durable mask.

The NY Times article uses two layers of material in its design. I only used one layer. Testing has shown that a second layer only marginally improves the filtration, but significantly impacts breathability. This article lists the effectiveness of various materials and one versus two layers. <https://www.nytimes.com/article/how-to-make-face-mask-coronavirus.html>

You will find these masks fit snugly since they are adjustable and allow you to breathe comfortably. After use, wash it in the washing machine with hot water.

Good luck and be safe!