Supplies needed:

PLEASE DO NOT USE AN IRON AS THIS WILL DAMAGE THE MATERIAL.

- **Recycled or autoclaved** medical grade surgical wrap material (two layers fused together, which may be blue and blue or may be blue and white)

- 6” of wire for top of mask nose piece made from one of the following materials:
  - A 6” twist tie (a recycled bread twist tie is about 4” long, so twist two together to make 6”)
    https://www.amazon.com/CandyHome-Paper-White-Twist-Bread/dp/B07PW6Z1JG/ref=sr_1_7?dchild=1&keywords=bag+twist+ties&qid=1585925652&sr=8-7
  - Vigoro PVC coated plant wire cut to 6”
  - Floral wire (22 or 24 gauge) cut to 6”
    https://www.amazon.com/Darice-Paddle-Wire-22-Gauge-Green/dp/B001K7QAYM/ref=sr_1_4?dchild=1&keywords=floral+wire&qid=1585925516&sr=8-4

- Scissors
  - Alternative: Cutting mat, ruler and rotary cutter

- Sewing machine

- Thread - **polyester preferred** as these masks may be disinfected and the thread needs to stand up to the disinfection process

- Sewing clips or paperclips (NOTE: used in place of pins to avoid holes in fabric)
  - Alternative: Pins

- Marker or pen

- Cardboard to make two templates
  - TOP template: 1 1/4” wide by 8” long:
    Draw a line lengthwise down the center of the template (**pictorial step 14**)
  - BOTTOM template: 1 3/8” wide by 8” long:
    Draw a line lengthwise down the template that is 3/8” from the top (**pictorial step 17**)

Procedural mask from surgical wrap material
Directions:

This mask uses recycled or autoclaved medical grade surgical wrap material (two layers fused together, may be blue and blue or may be blue and white). If your material separates into two pieces, keep the two pieces together and sew as if it were a single, fused piece.

1. Cut two strips 1” wide by the length of the material for use as ties (pictorial step 5). 34” length is the minimum; the longer, the better. Ties can be SINGLE layer (pictorial step 6).

2. Cut one piece of the fused surgical material 8” x 7” for the mask body (pictorial steps 2-3). If you are using a cutting mat, ruler and rotary cutter – cut 8” strips and then sub-cut into 7” pieces.
   - Top and bottom = 8”
   - Sides = 7” before pleating

Note: Cut around and set aside any material with tape, tears or holes. Do not use marked or damaged pieces for masks.

3. Use your pen to mark the center of the mask body top and bottom – the 8” side (pictorial step 4).

4. Use a pen to mark the center of the ties and additionally, at 4” on either side of center (pictorial step 7).

5. Attach the first tie to the mask body and add the wire to the top of the mask as follows (pictorial steps 8-12):
   - Take a tie and lay it flat with the marked side facing up.
   - Take the mask body and place it face up on the tie, overlapping by 1/2”.
     - Blue side is face up if you have fabric that is blue/white
   - Match the center mark on the mask body with the center mark on the tie.
     - The edges of the mask body should now also line up with the other two marks on the tie.
   - Fold the tie in half lengthwise over the mask to create a casing.
     - If the mask layers are separated, be sure to keep the two layers of the mask body aligned while you do this.
   - Clip or pin the tie to the mask as needed.
     - Use pins on the tie or in the seam allowance to avoid poking holes in the mask body.
• Starting at the very top of the tie, sew using a 1/4” seam from the folded edge.
• Backstitch at start.
• Continue sewing down the tie and over the mask body, STOPPING about 1/8” BEFORE you reach the bottom edge of the mask.
• Backstitch at end.
• That 1/8” gap in the casing leaves a small pocket to insert the wire into the mask and casing.
• Insert the wire now, being careful not to poke through the casing.
• Taking care not to sew directly over the wire, place the mask back in the sewing machine.
• Begin a little before where you stopped, backstitch, then continue sewing until you reach the end of the tie.
• Backstitch at end.

**Alternative:** Center your wire on the mask body as you sew the casing. There is no need to stop and start sewing the casing/tie with this method.

6. Repeat on the other side, SKIPPING the addition of a wire (**pictorial step 13**).

7. Make a top 5/8” pleat (**pictorial steps 15-16**):
   • Place the mask RIGHT side up with the wire piece on top.
   • Lay the TOP template on the mask so that the top of the template is even with the top of the mask (on top of the wire).
   • Holding the template in place so it doesn’t shift, fold the fabric in on itself over the template and up to meet the middle line on the template.
   • Make sure the sides of the pleat are square to the edge.
   • Clip or pin in place as needed.
     — Use pins in the seam allowance to avoid poking holes in the mask body.
   • Remove template.
   • Top stitch each side using a 1/4” seam to sew the pleat down just to the bottom of the pleat.
8 Make a pocket on the bottom of the mask. This will come down below the chin in the finished mask (pictorial step 18):
   • Place the mask WRONG side up with the wire piece on top.
   • Fold the bottom of the mask up 1 3/8” (use the BOTTOM template or a ruler).
   • Clip or pin in place as needed.
     — Use pins in the seam allowance to avoid poking holes in the mask body.
   • Top stitch each side just along the fold using a 1/4” seam.

9 Make a final pleat (pictorial step 19-20):
   • Place the mask RIGHT side up.
   • Lay the BOTTOM template on the mask, so that it is even with the bottom of the mask and the horizontal line of the template (marked at 3/8”) is nearer the top of the mask.
   • Pinch/fold the fabric just above the template and bring that fold down to the line on the template.
   • Clip or pin in place as needed.
     — Use pins in the seam allowance to avoid poking holes in the mask body.
   • Remove the template.
   • Check the wrong side of the mask - the inner pleats/folds should be touching but not overlapping.
   • Turning the mask right side up again, sew this pleat down on both sides using a 1/4” seam that runs from the top to the bottom of the mask.

Your mask is complete! Please note that the lower tie extends out from the mask at approximately the mid-point (and not the bottom). The mask is designed this way for comfort and full-face coverage.

Special thanks to Dr. Sandra Roberts from the Lakeview Clinic (Waconia, Minnesota) for developing this mask: https://www.lakeviewclinic.com/locations/waconia/

Video directions can be found here: https://www.youtube.com/watch?v=OY9vJIVIo0k&feature=youtu.be