







Cut 2 pieces of 1/4" elastic 7"1ong.

If no elastic is available, 4 pieces of 15' cloth, ribbon or shoelace-type material can be used to make it a mask that can be tied behind the head.

2

Pre-wash your chosen fabric, then dry and iron it to soften it and preshrink it.

Next, cut out a piece 9" by 20" to make the mask.







Cut a 12" piece of fine, bendable wire (20 gauge or higher).

Fold it in half and twist it. This wire will be the wire used to form the mask around the user's nose.



Fold in each of the 20" long sides by 1/4", then iron the folds flat.



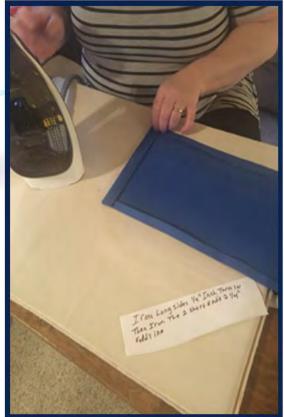




Fold both shorter 9" sides inward twice – each fold should be approximately 1/4".



Iron the double folds to hold their shape.







Fold the 20" length side of material in half and Iron to hold the shape. This will create the pocket the MERV 13 filter material will be held in. All the pre-folded hems should be on the inside of the folded piece created.

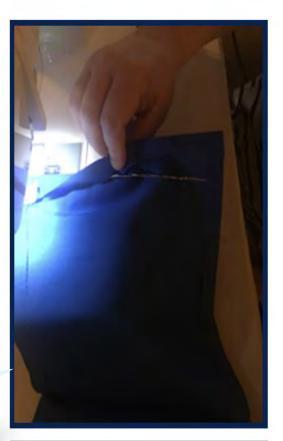


Center and place the previously cut and twisted wire within the inside of one of the double 1/2" folds. This wired hem will become the top of the mask.





Sew both of the top 1/2" hems, making sure the wire is sealed inside the double 1/2" hem in which it was placed.











At 1" from the bottom of the mask, create the first pleat by doubling up the material 1/2" toward the bottom of the mask to create a "Z" type pleat.



Hold this in place on both sides with a small clip or pin.





Repeat the pleat creation twice more so that the mask has three 1" pleats, starting at 1" from the bottom of the mask, created by the 1/2" overlaps of material. Clip or pin both sides of each pleat as shown.

**(12)** 

Place one end of each previously cut elastic strips (or one end of each if using a ties) between the bottom fold and the two top hems. Repeat this on the other side of the mask with the remaining elastic (or ties).









Sew the pleats together by sewing the sides of the mask together 1/4" from the edge. Make sure that the elastic (or the ties) are in far enough to be attached as well.



Remove the clips or pins.

This is a completed mask that will hold the MERV 13 filter material.







Use an Aprilaire®
Space-Gard® Healthy
Home #213 or similar filter
that uses a MERV 13 filter
material.



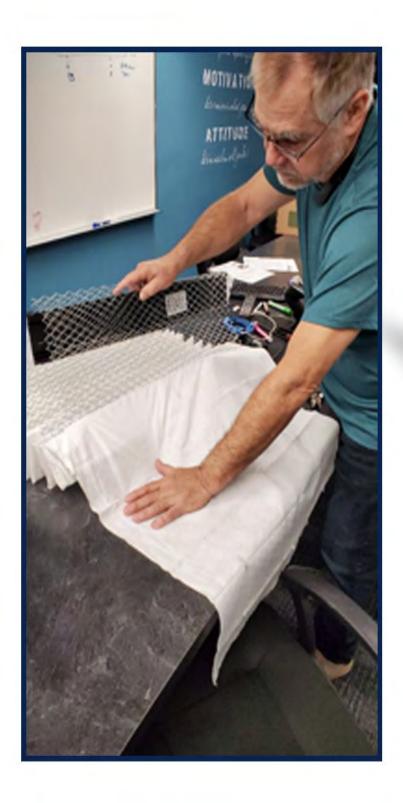
Remove the ribbons attached across the top of the pleats.







Separate the wire mesh from one of the ends.
Once separated, use a scissors to cut the material away from the solid plastic end.





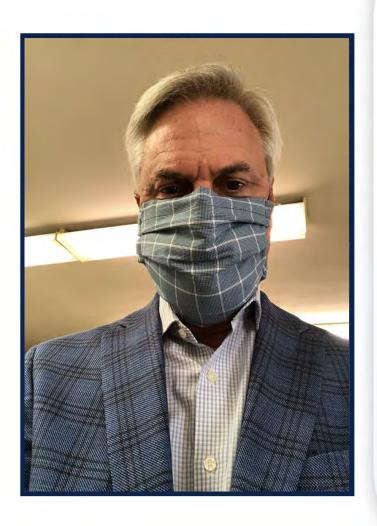
Gradually pull the wire mesh from the filter material until all 12 feet of material is separated. Cut it free from the remaining solid end and dispose of the wire and plastic ends. Any small spots of glue remaining that had held the separating ribbon in place should be carefully removed or cut free.





Cut the material into 6-1/2" squares. Cut two  $45^{\circ}$  cuts at the bottom corners 2-1/2" in on the sides and bottom as shown.

The angled cuts will be stuffed into the bottom of the filter so the straight edge is at the top covering the user's nose and mouth.





To sterilize the mask between each use, preheat an oven to 170° F. Without removing the filter material, place the mask with the filter material inside it on a baking sheet within the hot oven for 1/2 hour. Viruses and germs do not survive temperatures over 150° F.

If you need to wash the mask, remove the filter material and hand wash. Washing in a washing machine tends to crumple the nose wire which will cause it to eventually break. The mask can be air dried or dried in a clothes dryer as long as there are no other clothes in the dryer that would damage the wire.

**Do not use a microwave** since this will not kill viruses, and the mask has metal in it.