

## How to make a mask out of filter paper

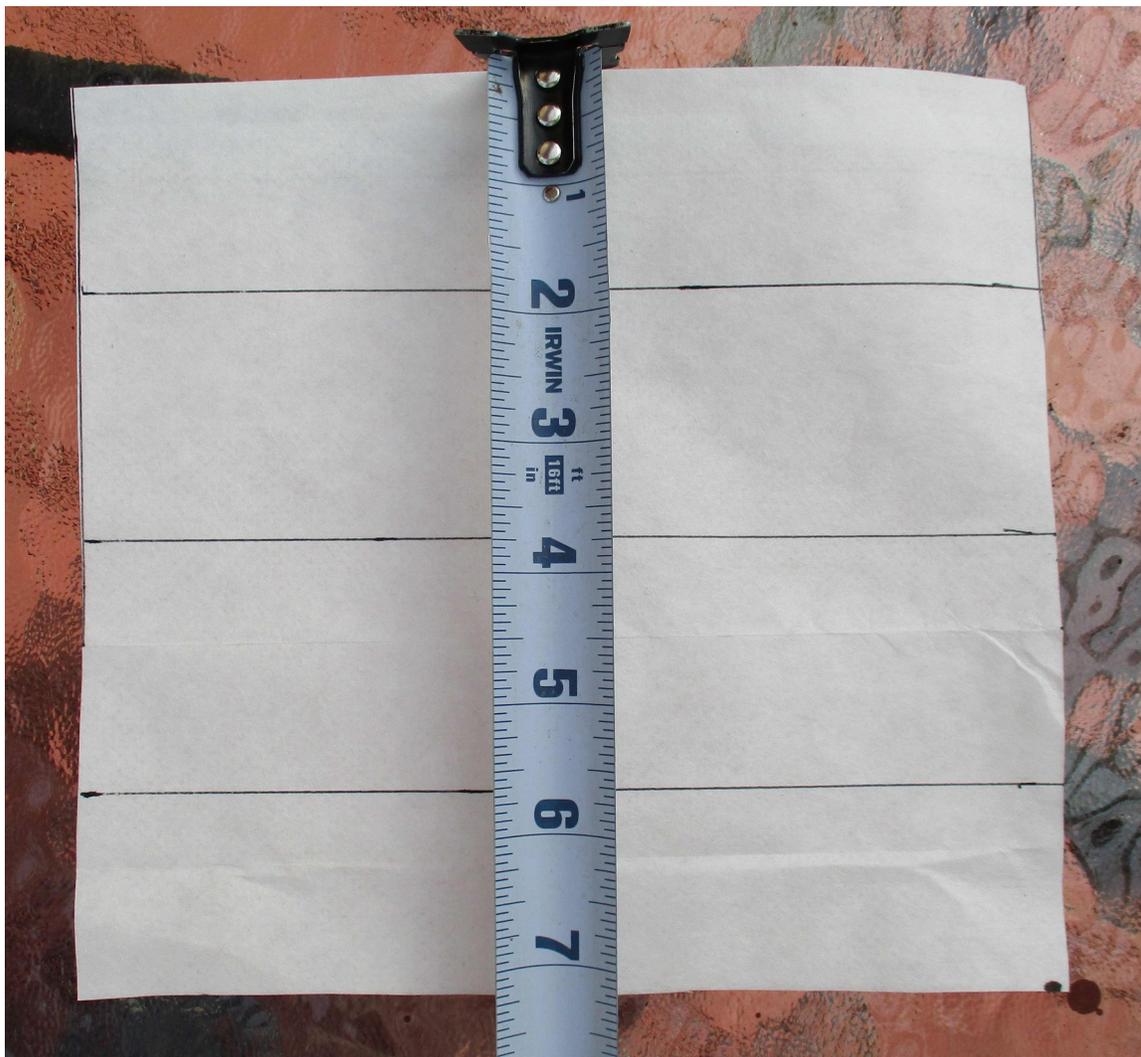
(vacuum cleaner bags, furnace filters)

According to testing, these are the best performing filter media, better than cloth.

The best vacuum bags are probably the ones for shop vacs (more material in them). Also good would be allergen protective furnace filters. You would have to use wire cutters to get the media out and probably iron the creases out to flatten it. But that should free up a large amount of usable material.

Cut a piece 8" X 7". The 8" dimension is the width dimension.

Now draw fold lines on it. Pick a top side. I chose which side to use as top because it already had a fold there. The first line goes  $1\frac{3}{4}$ " below the top, then 2 more lines each 2" apart below that one.



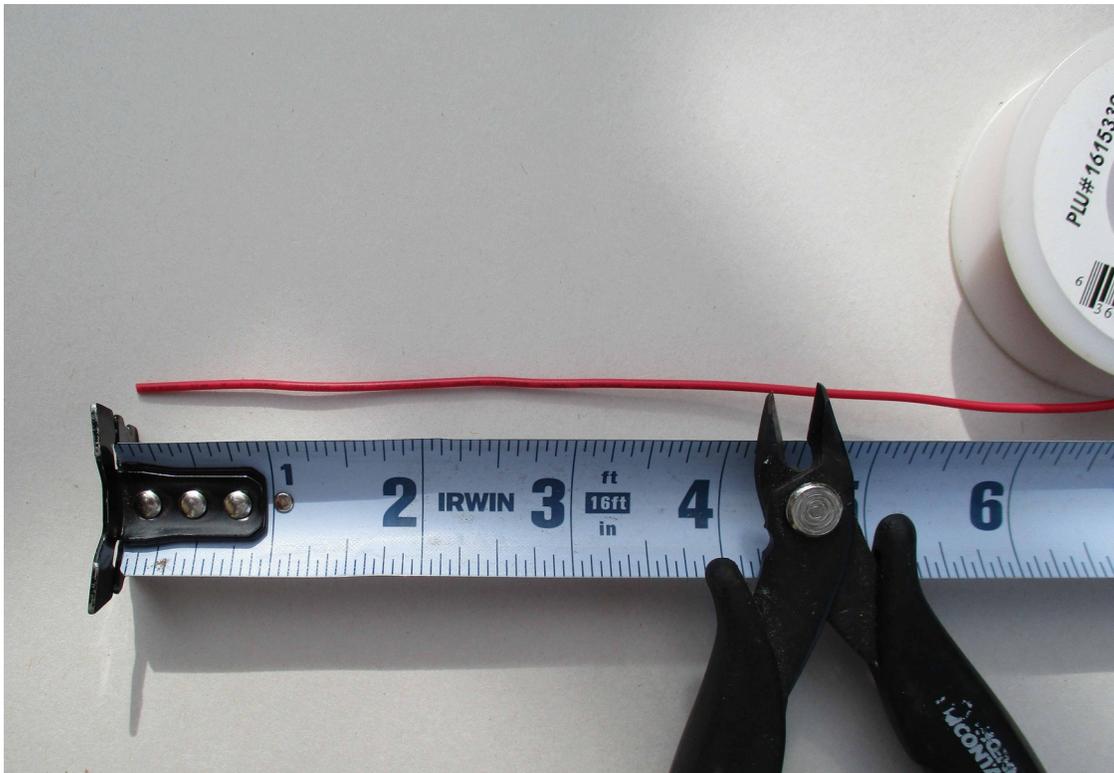
Now crease each of these lines on a sharp table edge. Take each line, and lift the crease up about a half an inch. Flatten it with your hand. What results should look like this.....



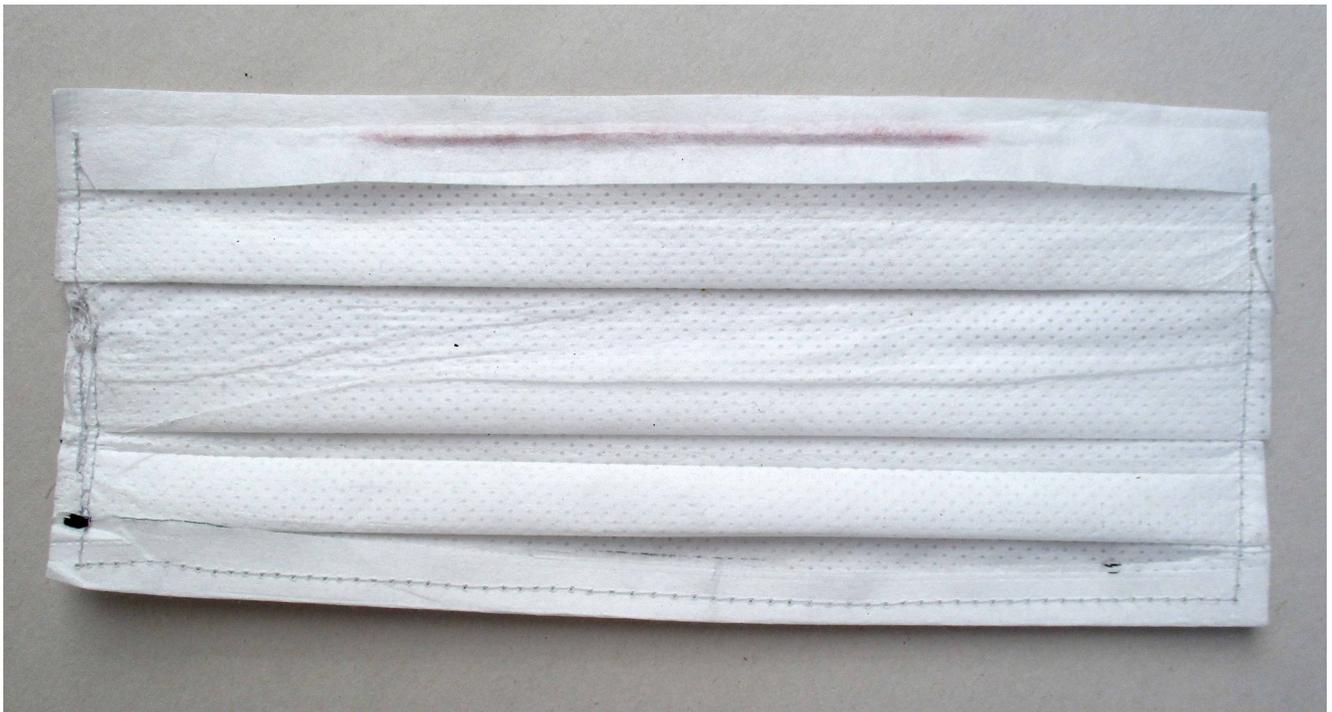
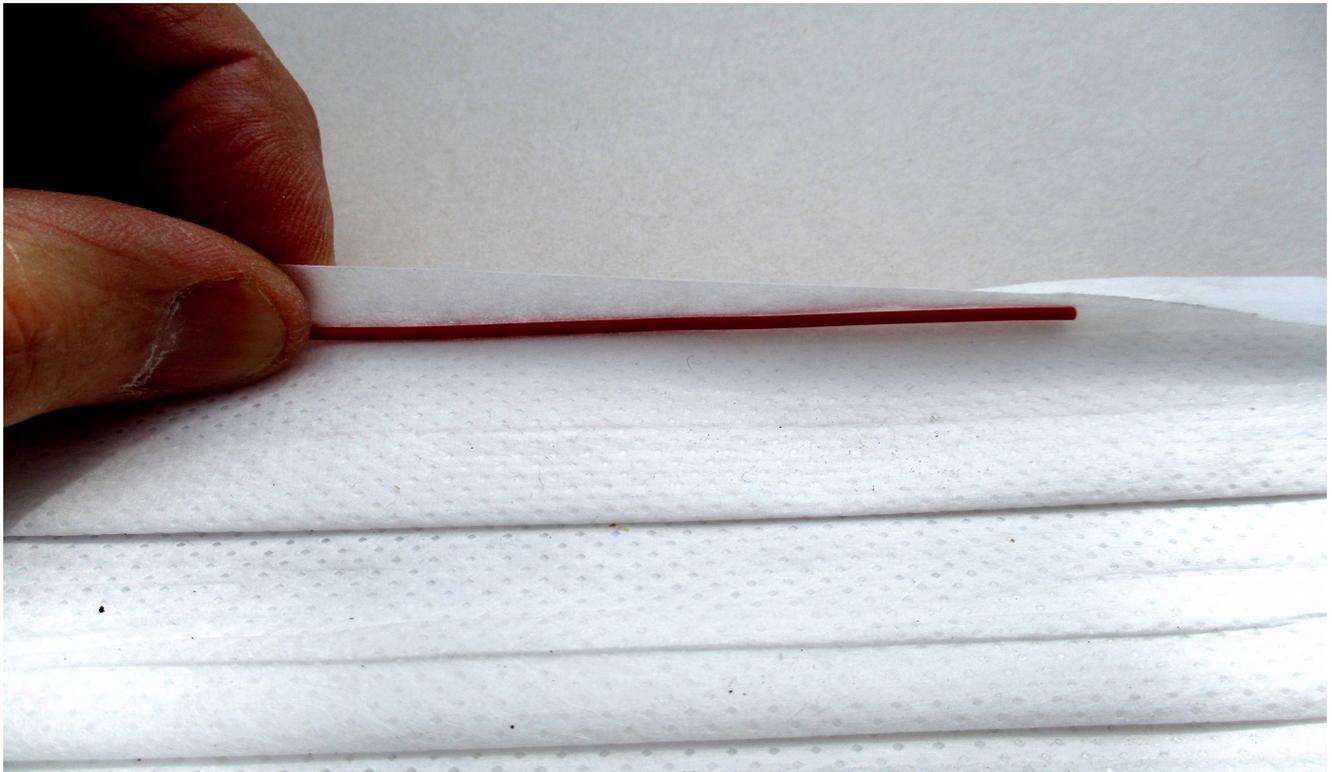
Now starting from a top corner, hold the folds flat and stitch the folds shut, make a fold across the bottom, stitch that shut, and stitch up the other folded side to the top. Hot melt glue could work here if you don't have a sewing machine.



Cut a piece of wire about 4' long. This will make the piece that conforms to your nose. I used solid core wire (about 22 Gauge) that I had. You can use paper clips, bread bag ties, what ever you have that will take and hold a shape.



Insert the wire into the fold at the top of the mask. Carefully straighten the wire so you can sew it into place. Rolling it on a table top is a good way to do this. Be careful not to hit the wire while sewing, it will bend the needle (yes, I know this.....). You could also just hold the wire on with masking tape. We are only interested in results.



Now cut 2 pieces of  $\frac{1}{4}$  inch elastic about  $6\frac{1}{4}$  inches long. You may find longer or shorter fits your face better as you make more masks. If you don't have elastic, use shoe laces and tie the mask on.

Stitch these onto the top and bottom seams of the mask. Stitch up and down several times to make a good attachment so that it doesn't rip out. Or use hot melt glue. I think the glue is the better way to go.

These attachments should go onto where the material is doubled up at the top and bottom of the mask, otherwise it might tear off.

It should look like this.....



To put it on, stretch out the folds to make room for your nose and mouth. Put it on and bend the nose wire so that it conforms to your face. Inhale----if it fits well, you will feel the paper sucking in towards your face. That confirms a decent fit. Here is mine.....

