DIY Instructions: Surgical Mask w/Filter Opening (N95 Cover)

First, we want to thank you for your generosity and caring heart for reaching out to us in these times to help protect our staff. We want you to use what you have on hand so there are some alternatives in the project that will be mentioned. Stay safe and stay inside as much as you possibly can. With that, let’s get started.

On hand, I have several Fat Quarters so that is what I have used for this project. If you don’t have any precut the measurements are 18x21 inches, you can use that to cut any cotton fabric you have on hand. Cotton is recommended as it needs to be a breathable material for our staff.

Open up the fat quarter and fold in half, so that your fabric is now 9X21. Cut the fabric in ½ so now you will have 2 pieces measuring 9x21. Set one piece aside. For the mask part it will be 9X16”. Cut the remaining 4-5” off and sit to the side for later.

With the 4X9 piece that you cut from the mask part make a 1” bias tape. To make the bias tape fold the fabric in half with wrong sides together and press to make the crease, open up the crease.

Now fold each side of the crease in and press as seen here. Then fold the fabric together and press. This will create the bias tape for both sides of the mask.

Now we will prep the ties for the mask. Take the 9X21” piece of fabric that we set to the side. Cut this into 4 long strips so that you have 4 strips of 2.25X21” of fabric.
Now we will need to make two ties for each side of the mask. For each strip cut one end at an angle. These will all need to be cut in the same direction. Cut the triangle piece off each one.

Now we are going to sew these strips together.

With right sides together, place them together so that the angled edges line up. You should have a small triangle on each side of the fabric. (as shown here)

Now stitch the two pieces together where the two points meet on the fabric. I have the ruler on the stitch line. Notice my stitch line is where the two points meet. Clip the little triangles off. Now press your seam.

Now we will fold the strip just like we did earlier for the bias tape. Do this with the remaining two strips. Now that all of our pieces are cut and prepped we can start sewing.

We will start with the mask. Take the fabric that is 9X21" and fold right sides together so that your fabric is 9X10.5". For the top opening place a pin 2" from the edge.

Sew from the edge to the pin on both ends. We are creating an opening for a filter so be sure to backstitch here. Now press the seam down. Top stitch the opening on both sides. Now turn fabric out so wrong sides are together.
Now fold the mask so that the filter opening is 1" from the top. Stitch all the way around the mask.

Now we will add a wire insert to form to the nose bridge area. Here is where some substitutions can be made. I had wired ribbon on hand and pipe cleaner. I have also heard some people use bread ties, etc. I prefer the ribbon as the metal is in the ribbon fabric and should hold up to many launderings. For the ribbon I did fold it in fourths and then stitched down the center. For the pipe cleaner just fold in half.

Now we will insert this into the top portion of our opening.

Stitch across the top opening now, being careful not to stitch the bottom area closed

For pleating the mask: Be sure that the opening side of the mask is facing you. (We want the pleats on the right side of the mask to pleat down.) Starting at the bottom create 3-5 pleats. Stitch the edges.

Now take the two long strips of bias tape and stitch them closed. Be sure to backstitch the edges to keep them intact for several uses.

Use a safety pin to pull both ties thru the bias tape on each side of the mask.

Once that is done, it is finished. You will have a mask that healthcare workers will appreciate!
From all of us at ARH, I want to say Thank You for helping and supporting us! We are Team ARH!