

Sewing tutorial instructions #1 copyright

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MASK TUTORIAL

This mask consists of 2 layers of HALYARD ON H600 medical fabric. (Typically used to cover sterilized surgical instruments.) It has a 16 Gauge copper or brass wire sewn in at the top and fabric ties reinforced with regular acrylic yarn.

The mask in the tutorial has passed the Respirator Fit Test.

The medical grade fabric is provided by the hospital and comes in varying sizes. Pull the two layers apart. If you pull gently-the fused areas will come apart just fine. If it creates holes-then you will need to cut the fused part (or the holes!) off.

Stack both layers when cutting. Cut and you have the 2 pieces needed. A cutting mat, ruler and rotary cutter makes cutting a breeze! A 36" wide cutting mat and 36" ruler and works great!

DO NOT press the medical grade fabric - it will melt!

LET'S GET STARTED!

SUPPLIES NEEDED:

- 1) Medical grade fabric (Halyard on H600)
- 2) 16 gauge craft wire
 - Darice Craft designer Brass or Copper 16 gauge wire
 - avoid aluminum wire as it will not retain shape
 - any non aluminum wire will do
- 3) Needle/Jewelry Pliers with round tip and wire cutter
- 4) Mask Ties - this tutorial uses fabric for binding/ties on mask. Optional suggestion for elastic ties at end of this tutorial)
 - NOTE : ties from medical fabric can rip, these can be reinforced with yarn
 - Red Heart Super Saver Yarn (100% Acrylic) is what we used
- 5) Cutting mat, ruler, rotary cutter if available
- 6) Sewing Machine, thread, scissors, pins/clips

FABRIC:

***Medical fabric 7"x8"** —cut 2. Use the blue layer for the top layer. White layer will be used on the bottom.

Tip: I cut them stacked - a strip 8" tall and turn the strip and cut 7" pieces!)

FABRIC TIES/BINDING FABRIC:

Cut a strip of the medical grade fabric 1"x36". Cut 2.

Tip: If the medical fabric you are using is not 36" wide, cut 2 pieces 19"x1" and you can overlap them when it is attached to the mask. I leave them stacked and cut together.

Cut 4 pieces of Red Heart Acrylic Yarn or similar yarn or string - 36" (2 for each side). *Note: The yarn is placed inside the fold of the fabric when you are sewing the tie/binding fabric on.*

If you are using elastic, use 1/8", 1/4" or round elastic. Cut them 20" long if you are going to staple them. If you are going to sew them on then you will need to make them 25" long so a knot can be made as needed to adjust the tightness. ****see the last page of this tutorial for elastic instructions****



**We are no longer
using the cotton or
flannel fabric!!
Only use 2 layers of
medical fabric.**

FABRIC CUT 7"x8" AND TIES CUT 1"x36"

GET READY TO SEW! (NOTE: The short sides are the top and bottom and they will be sewed first.)

Layer your fabric starting with the bottom layer as follows:

White medical fabric face up. (short end towards you)

Blue medical fabric face down; line up all layers and pin on long sides about 1/2" in to leave room to sew



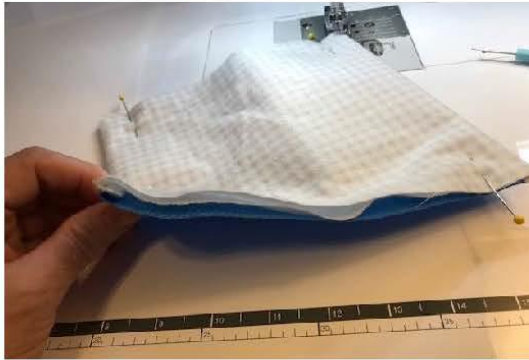
LAYER THE 2 MEDICAL FABRIC LAYERS

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LINE UP LAYERS AND PIN ON SIDES

Turn right side out and use your fingers to press the seams flat. (DO NOT press with an iron as any heat will melt the medical fabric!). Pin each side. Now you should have an envelope with two open ends and the top and bottom have seams.



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**ENVELOPE WITH SHORT ENDS SEWN-NOW TO
TOPSTITCH! LOOKING PRETTY!**



**TOP STITCHING
IS DONE!**



Pin the sides and now you will sew (using a 1/4" seam allowance) across the shorter ends.



1/4 SEAM ON SHORT ENDS



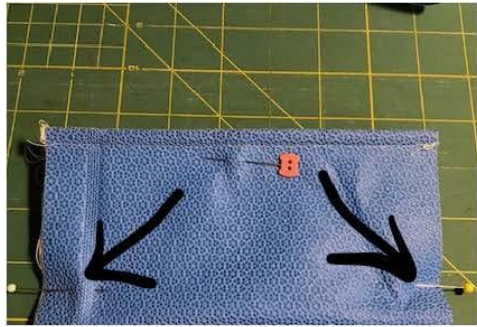
1/4" SEAM ON BOTH SHORT ENDS



TURN RIGHT SIDE OUT (YOU WILL ONLY HAVE 2 LAYERS)

**We are no longer
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medical fabric.**

Lay the project in front of you. Blue side up, with the wire edge at the top. Measure down 2 inches from the top edge and mark with a pin or a permanent marker. Now you are going to make 3 - half inch pleats that all go down.



MEASURE DOWN 2" FROM THE TOP EDGE
ON EACH SIDE AND MARK

PLEAT 1: At the 2" mark, fold fabric to the back about 1/2 inch and then fold back the other way. (A 1/2 inch pleat). Use a pin or clip to hold it.



We are no
longer using the
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layers of

PIN AT 2" FROM TOP. FOLD BACK 1/2" TO CREATE 1/2" PLEAT #1

WIRE:

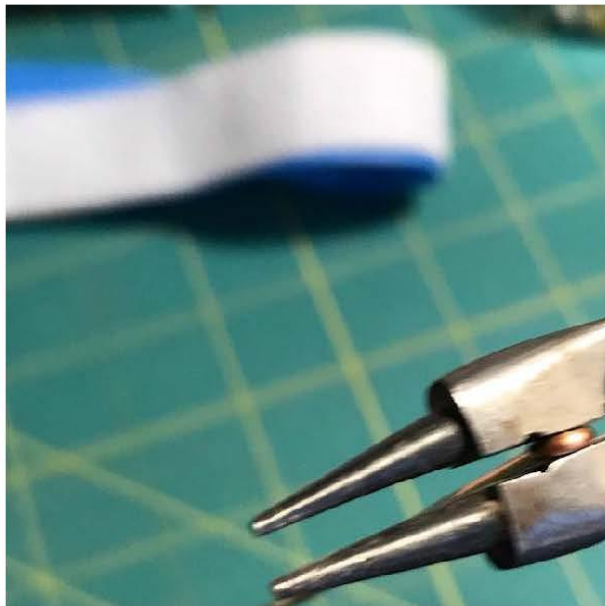
Cut 1 piece of 16 gauge wire (not aluminum as it is too soft) 6 inches long. Use your pliers to bend a curl on the end. Do this by placing your pliers at the very end of the wire, grasp the wire hard with the pliers and turn counter clockwise until the curl touches the wire. Then use the flat part of your pliers to press the loop flat so the end is now tucked away and won't poke out or catch on anything. The end result will be about 5.5" long. (Make sure your loops are going the same way and lay flat!)



GRASP TIP OF WIRE FIRMLY WITH PLIERS



TURN PLIERS UNTIL LOOP TOUCHES THE WIRE



FLATTEN THE LOOP WITH THE FLAT PART OF THE PLIERS AND PRESS FIRMLY. THIS WILL HARDEN THE LOOP AND MAKE SURE THE CUT END IS TUCKED IN.



WIRE IS NOW ABOUT 5.5" WITH LOOPS ON THE END. THE LOOPS ARE FACING THE SAME WAY AND LAY FLAT.

NOW WE ARE READY FOR THE FUN PART!!

Take your prepared 16 gauge wire and push it into the seam allowance of one (either one!) of the seamed sides and push it in until it is centered.

Tip - I try to get it between the blue and white layer so that the wire is padded on the cotton/flannel side. But don't sweat it - just get it in there!



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INSERT THE PREPARED WIRE INTO THE 1/4" SEAM

Turn the project over so the blue side is up and put a pin below the stitch line where the wire is. This is now the TOP! (The pin will help you remember where the top is as we start the pleats.)



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LIKE THIS BUT PIN ON THE BLUE SIDE!

BEFORE YOU SEW - WE NEED TO MEASURE THE WIDTH OF THE SIDE YOU JUST PLEATED. It needs to be 4 inches from one side to the other side. Adjust your pleats as needed until you have 4 inches!



PLEATED SIDE NEEDS TO MEASURE 4"

PLEASE Be sure to adjust the pleats as needed until the width on the side is 4 inches. This is important as too short and it won't go under the chin in some cases and too long it could be too long and leave more gap on the side of the face.

Repeat on the other side. They don't have to be perfect, just make sure it's 4 inches!!

Fold the binding/tie fabric over the front (blue side) and clip to hold. You will find it's hard to pin the layers so a clip might be better. Once you've sewn a few you can do it without clips or pins!

When you sew - USE A 3/8 INCH SEAM! I use a regular foot on my machine and just use the edge of the foot as a guide as it's about 3/8. This way, your 1/4" stitching to hold the pleats in place won't show!



CHANGE: Add the 2 lengths of yarn inside the fold as you sew! This is needed to strengthen the ties so it can be ties snugly without breaking.

BINDING/TIE FABRIC IN PLACE READY TO SEW! ADD THE YARN!!!

I like to start in the middle. **Top stitch using a 3/8" seam** all the way down to the edge of the mask and when I reach the strip, fold the strip in half and keep on sewing to the end! Back stitch the ends. Turn over. Overlapping the stitches, finish sewing the other half and down the tie. Do this on both sides. If you are using and overlapping 1"x19" pieces instead of a 1"x36" piece - overlap them by 1/2" in the center of the side; clip and top stitch the same. (the medical fabric does not fray so no additional seams are needed)

I also like to sew a second line of stitching on the sides of the mask as reinforcement for the ties.



PLEATS CLIPPED AND READY TO SEW!

We've worked so hard on those pleats so let's SEW THOSE PLEATS DOWN! Sew 1/4" on each side to fasten down the pleats to secure them on each side.



1/4" SEAM TO STITCH THE PLEATS



CHANGE: Add the 2 lengths of yarn inside the fold as you sew! This is needed to strengthen the ties so it can be ties snugly without breaking.

REMEMBER-3/8" SEAM AND ADD THE YARN IN THE FOLD!



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OVERLAP STITCHING AND SEW THIS END OF THE BINDING/TIE-HERE IS WHERE YOU WOULD OVERLAP SHORTER PIECES

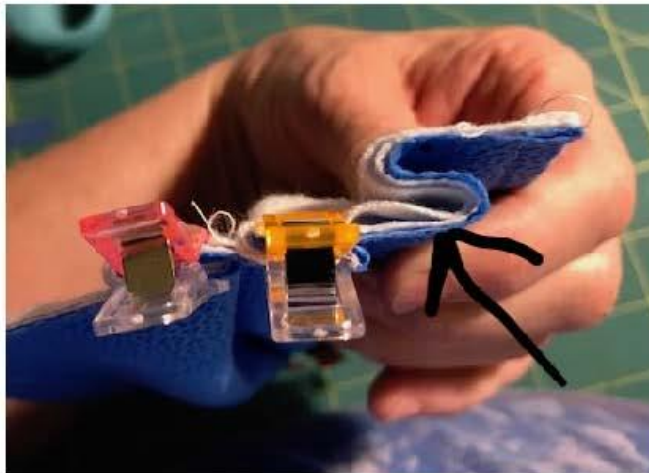
PLEAT 2: Fold back about 1/2 inch, and then down leaving a 2nd 1/2" pleat. This pleat lines up right next to the first one.



We are no longer using the cotton or flannel fabric!! Only use 2 layers of medical fabric.

FOLD BACK 1/2 INCH TO CREATE 2ND PLEAT

PLEAT 3: Again, fold back about 1/2 inch, and then creating a 3rd 1/2" pleat which lines up just below the 2nd one.



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FOLD BACK 1/2 INCH TO CREATE 3RD PLEAT



ONE SIDE DONE! ON TO THE OTHER SIDE...

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**BOTH TIES ON, NOTE 2ND LINE OF STITCHES ON THE SIDE OF THE MASK.
ALL FOLDS POINT DOWN AND THE TOP IS WHERE IT SHOULD BE - MY PIN IS
AT THE TOP STILL!**



PLEATS HAVE BEEN STITCHED DOWN WITH A 1/4" SEAM ON BOTH SIDES. NOTE THE PIN IS AT THE TOP WHERE THE WIRE IS AND ALL PLEATS POINT DOWN.

ALMOST THERE!!....

FABRIC TIES:

Elastic may be hard to come by, so this tutorial focuses on how to make fabric ties.

Take your **1" medical fabric strip**, **fold in half and mark the center**. Place the center mark in the center of the pleated side, under the pleated edge. It should be about halfway under (it will go in a tiny bit further than the 1/4" seam line"). Fold it over the front (blue side) and clip to hold.



PLACE BINDING/TIE STRIP UNDER THE EDGE OF THE MASK ABOUT HALFWAY

ELASTIC TIE OPTION - (Note- so far our testings shows the fabric ties pull tighter than elastic!! This is important where that snug fit is critical.)

There is a shortage of elastic so the tutorial was based on fabric ties. You can use any material to construct the ties. Another tutorial will be done soon to show the elastic ties. At this point this is what I would recommend.

Complete your mask as listed above though stitching down the pleats. Once the pleats are stitched you will need:

Binding: Cut a piece of medical fabric 1" x 5". Pull the blue and white pieces apart after you cut it. (If you are making more than one mask - you can cut more 1"x5" pieces from the fabric, pull them apart and sort by white and blue!)

Project blue side up. Place the binding under the pleated edge halfway (it will go in a tiny bit further than the 1/4" seam line"). Fold it over the front (blue side) and clip to hold. Top stitch 1/4" all the way down. Do this on both sides. (same as in the above tutorial except you will only be covering the edge of the mask!)

Trim the edge of the binding even with the edge of the mask.

Cut 2 pieces of elastic 20" long. Good options are 1/8", 1/4" or 3/8" braid elastic or round elastic. **Staple the elastic on TOP** (the blue side) in all 4 corners. This will allow the mask to seal against the face and the staple should allow the user to pull the elastic to tighten as needed. Make sure the staple curls properly on the underside so there are no sharp points.

Note: You need a heavy duty staple and make sure the underside is smooth to the touch. I use my pliers and press the ends into the fabric. (Our tests with a regular staple did not work-when you pull it tight the staples bend)



STAPLES WITH ELASTIC

NOW IT'S TIME TO ADMIRE OUR WORK!!



LOOKING GOOD!



SIDE VIEW - OH YEAH! PLENTY OF ROOM FOR MOST NOSES!....



SWEET! READY TO RUMBLE!! BE SAFE EVERYONE!!