Mask Production 2020

May be worn alone or over an N95 for isolation precautions to extend N95 use when appropriate during a severe shortage of available PPE. Intended for reuse after laundering. If N95 is visibly soiled, it must be discarded.

Materials
OR linens or other breathable water repellent fabric
Pins
1/4" or 3/8" wide Elastic – white or black
Thimbles
Fabric Scissors
Heavy paper for patterns: 9" x 15" & attached mask pattern
Cardboard – optional ("tip: use a 9.5" piece of cardboard to loop around 10-15 times to cut all at once to produce 20-30, 9.5" pieces)
Sewing Machine
Thread

PREP – Estimated time 3 minutes per unit
Station 1: Cutting
Cut a rectangular 9" x 15" base paper pattern
Fold fabric in 4 layers
Lay 9" x 15" base pattern on top of 4-layer fabric
Cut around the base pattern

Station 2: Pinning
Take 2 cut sheets and fold in half to make 4 layers
Cut mask pattern per attached sample (8.19 x 5.4")
Pin mask pattern to cut 4-layer fabric using 4 pins around the outside

Station 3: Cutting
Cut the fabric for the mask pattern

Station 4: Finishing
Remove pins and paper pattern from cut fabric
Separate 4 fabric pieces into 2 sections of 2 layers of fabric each
Pin 2 piece sections around curved edge vertically, every 2"

Station 5: Elastic
Cut elastic into (2) 9.5" sections.
Insert (1) elastic into each 2-piece pinned section through the flatter open edge (opposite from the edge that is pinned)

Check to be sure elastic is not twisted inside the section. Once elastic strip is inserted into the opening and placed flat in a U shape, center the new elastic ear loop and pin down each end of the elastic strip 3" apart - EVEN with the edge of the fabric ("tip: create a 3" line on your table as a guide")

Use your completed 2-piece section as a guide for the other section to keep ears loops even
Place a single pin through middle of the 2 sections to make one unit, ready for sewing

Station 6: Quality Control
Examine product and correct any defects before advancing to sewing

Station 7: Distribution
Count and log mask units before issuing for sewing distribution. Record the name of the person picking up inventory. Ensure timely turnaround time of assigned masks, and do not over allocate to a single sewing resource.

SEWING – Estimated time 7 minutes per unit
Unpin the 2 sections pinned together
Place one 2 piece section on the machine and prepare to sew the edge with the elastic ends
Place machine on a zigzag stitch and sew along the entire edge
Line up second 2-piece section, place on the machine and sew the edge with elastic ends
Remove from the machine and take out the pins
Turn both sections inside out
For each section, sew a straight stitch on the same edge for extra stability for the elastic, ensuring the elastic is caught in the stitch
Place one section directly on top of the other section, line up directly on top of the other and prepare for sewing
Using a 5/8" seam for a small size N95 and a 1/2" seam for a regular N95, zigzag stitch down the section that will be over the nose part of the mask, making sure all pieces are getting caught in the stitch
Backstitch to finish and cut loose threads
Open completed mask
Trim up any frays

Examine product and correct any defects

This information is provided for your independent evaluation. Neither the materials nor design of these masks has been reviewed or approved by the FDA or any other regulatory agency. Each institution must make its own independent determination as to whether the masks are suitable for any particular purpose.
Mark dots for elastic

1/2 inch seam for regular mask

5/8 inch seam for smaller mask

Match notches for center seam