MASKS

- The bonded part can be used for the top edge of the mask as long as it is folded down, the wire for the nose piece placed here, and it is re-stitched; in this way, the perforations will not affect mask integrity.
- Face shapes vary widely. Try the same pattern in different sizes. Often, including a third strap will add tension to the mask, creating a better fit for the wearer.

TIES

- The Halyard material itself is good for making the ties but with repeated use, the material can be easily torn. For that reason, we have added yarn to strengthen the ties. Cotton is an alternative tie material and is often faster to sew. When using cotton, yarn is not needed for the ties. You can use our instructions the same way, just substitute cotton.
- Any yarn can be used. Our kits contain one strand of yarn, but you may want to use two pieces of yarn (double-folded) for a stronger fit.
- Serging can be done on the edge of the tie to create a strong bond on the Halyard material without having to add yarn.
- Serging can also be done on the outer edge of the cotton ties to create a strong and quicker stitch.
- You can use bias tape or precut fabric for the ties but you must ensure that whatever you use is heat resistant for sterilization purposes. The material must be able to withstand 30 minutes in an oven at 165°F. If you are testing materials, please ensure that you check the material's manufacturer specifications for heat tolerance and use extreme caution.
- To save time while making Prototype 2, only one end of the tie needs to be finished. The other unfinished end will be placed into the mask and stitched.
- When securing the straps to the mask in Prototype 2, stitch no more than 1/4 inch from the edge of the fabric. If your zigzag stitch runs too low, you will perforate the material on the mask portion and create a hole.
- Various stitching methods can be used that are quicker and strengthen the ties, such as zigzag and serging.
- Our instructions have provided flexibility on the tie length so the mask can fit different faces.
- Some fabrics will shrink during sterilization. We have tested both of our prototypes using washed versus pre-washed fabric and have not found a significant difference with fit testing.

METAL NOSE PIECE

- We have used one piece of 16-gauge copper wire. Wrapping together two pieces of 20-gauge copper wire also works, as does 18-gauge galvanized steel wire.
- For 20-gauge wire, cut one 10 to 12-inch piece and fold it in half, then loop the remaining ends. A 5-inch piece of wire works equally well in both mask designs.
- You can place the wire inside the mask and do a simple zigzag stich to hold it in place. When the wire is placed in the pocket and bent to shape the nose, it often rolls due to its round shape. The zigzag stitch will allow the wire to stay in place and avoid the risk of piercing the fabric. This will also decrease sewing time.
- If you are using metal pieces that are upcycled from standard surgical masks, you will need two to three pieces. Do not drill twist them because that will cause breakage. Simply place all the pieces in the mask and stitch them in.
- Please ensure that the edges of the metal you use are not sharp because that could cause skin damage.
- Any thread can be used if it can withstand heat. If you are testing materials, please ensure that you check the material's manufacturer specifications for heat tolerance and use extreme caution.