

# GENTL Mask: Community

A Rapid Response to encourage mask wearing among the general public.

An Open Source Design from

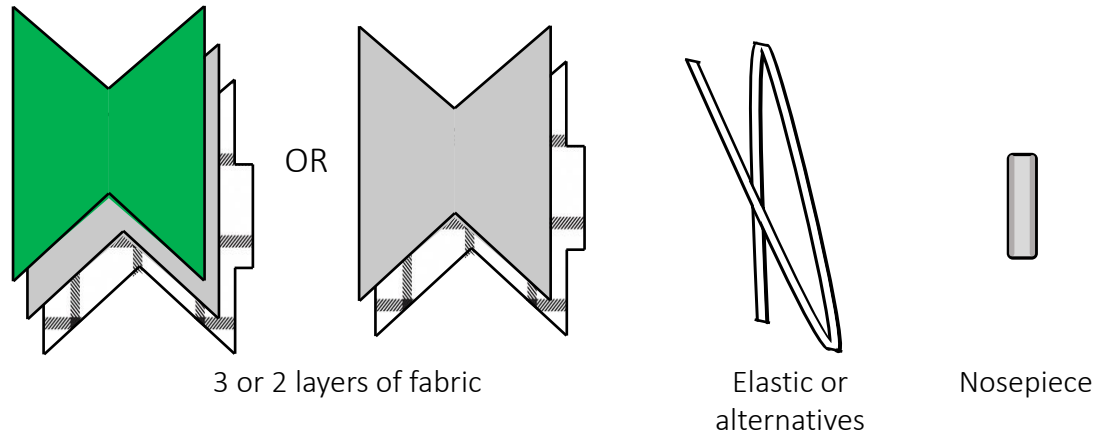
EPAM CONTINUUM



The GENTL Mask: Community is an **Open Source face mask** design intended to be sewn and worn by the general public.

The Community GENTL mask can be made with 2 or 3 layers of fabric depending on the wearer's needs. The Community GENTL mask includes a pocket to insert a moldable nosepiece and a strap that goes behind the head.

The GENTL mask conforms to the face, providing a comfortable fit while keeping fabric away from the wearer's mouth.



## TOOLS REQUIRED

CUTTING FABRIC, STRAP	Scissors or rotary cutter
SEWING MATERIALS	Sewing machine <u>OR</u> hand sewing needle and thread
HOLDING FABRIC (optional)	Sewing pins <u>OR</u> safety pins <u>OR</u> binder clips may be used to hold fabric together (if needed)
PRESSING FABRIC (optional)	For fully cotton masks, an iron may be helpful for pressing seams flat, but not required For masks using non-woven grocery bag material, an iron is not recommended as it may melt the material.
THREADING STRAP	Safety pin

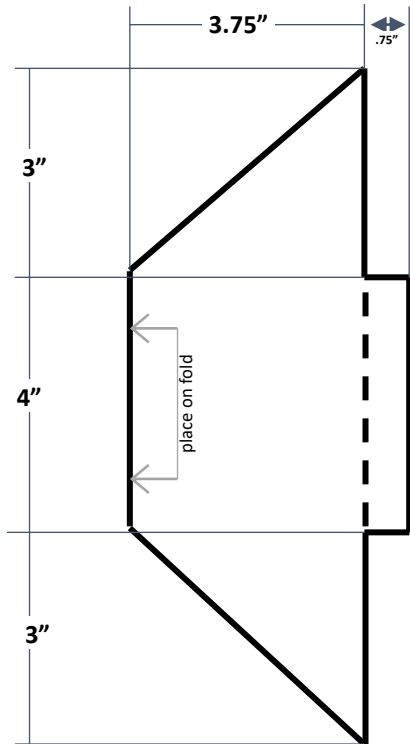
**DISCLAIMER** EPAM Continuum is not looking for financial gains from this design. We are putting this into the public domain as an Open Source design for community use in light of the CDC's recommendation that individuals wear cloth face coverings in public settings where other social distancing measures are difficult to maintain to slow the spread of Covid-19. Masks are not a substitute or reason to eliminate any other preventative measures.

EPAM Continuum is offering the GENTL Mask design idea as an Open Source offering to the community during this public health emergency. These statements and the GENTL Mask are not intended to diagnose, treat, cure or prevent any specific diseases. The statements made with respect to the GENTL Mask have not been evaluated by the U.S. Food and Drug Administration or any other regulatory authority. The GENTL Mask has not been tested, nor has it been put through any necessary regulatory design review as may typically associated with medical design and development. Individuals or organizations that manufacture masks utilizing the design and specifications are responsible for any federal or state regulatory requirements that apply to the manufacture or distribution of masks intended for medical use. Individuals and organizations are free to use, copy, modify and share this design and specifications, including for commercial manufacture, without payment of any fees or charges, but may not assert ownership in the design and specifications or "GENTL Mask" mark, ownership of which belongs to EPAM Continuum. EXCEPT WHERE SPECIFICALLY PROHIBITED BY LAW, NO WARRANTIES OF ANY KIND ARE OFFERED FOR THE MASK DESIGN AND SPECIFICATIONS, INCLUDING WARRANTIES OF NON-INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE.

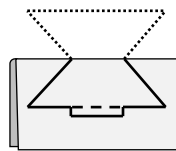
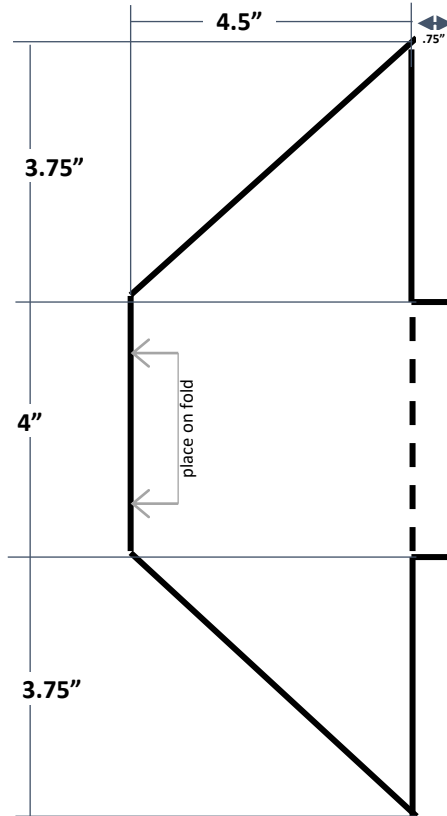


\* Images not to scale. See last page for printable pattern piece.

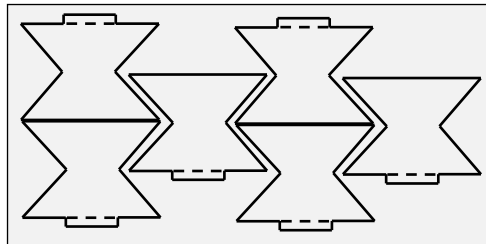
Adult regular size



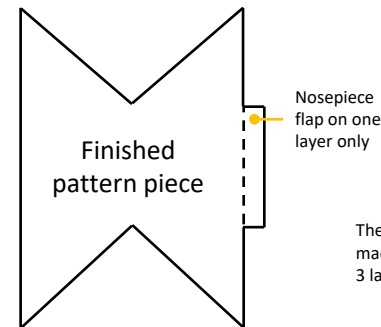
Adult large size



Put the half pattern piece on a fold of fabric to cut, or cut the shape on a fold of paper to create a full pattern piece.

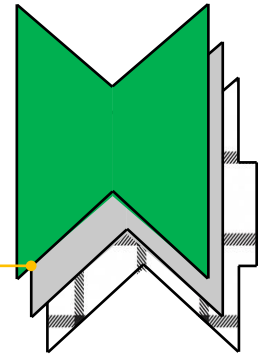


Example cutting layout to maximize space



Nosepiece flap on one layer only

The mask can be made with 2 or 3 layers



## 2-3 FABRIC LAYERS

The mask should include at least 2 layers of fabric.

- Non-woven grocery bag material (non-coated, non-insulated) may make a good outer layer because it offers some water resistance.
- Tightly woven fabric in a breathable material, such as a heavy quilting cotton or cotton flannel, makes a good material for the inner fabric layers.

1 mask requires 2-3 pieces of fabric that are 10" x 8.25" (regular) and 11.5" x 9.75" (large). Pattern pieces can be nested to take up less space overall.

## ELASTIC STRAP

Narrow elastic ( $\frac{1}{4}$ " –  $\frac{1}{2}$ ") OR a  $\frac{3}{4}$ " strip of jersey fabric can serve as an elastic strap. If elastic or jersey is not available, a non-elastic strap may work as well (for example: string, shoelaces, or twill tape).

1 mask requires a single piece of elastic / jersey strip that is approximately 26" in length (stretches to ~40" total). If using non-elastic strap, 40" may be required.

## MOLDABLE NOSEPIECE

A variety of materials may make a suitable nosepiece, including:

- A strip of moldable aluminum or doubled-up strip from a foil baking tin (tape sharp edges)
- A coffee bag tie
- Jewelry wire folded on itself with cut ends covered in tape

1 mask requires 1 nosepiece approximately 0.25" wide and 2.5-4" long.

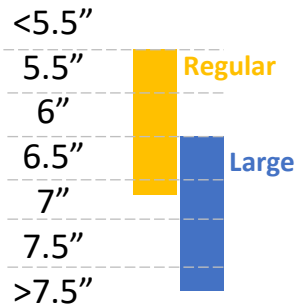


# Instructions before starting

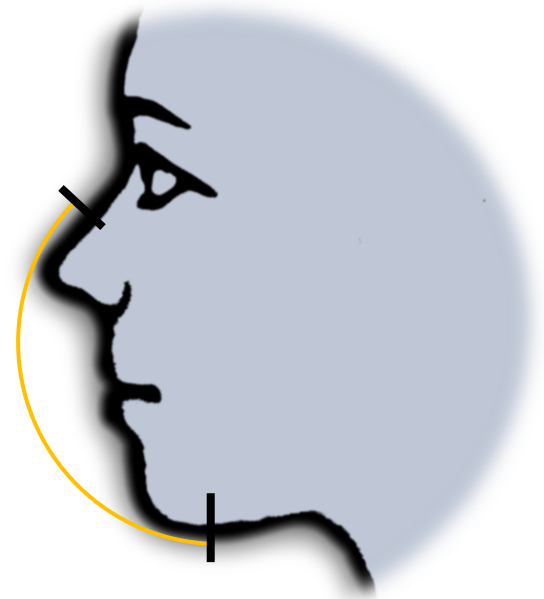
## SIZING

2 adult sizes are provided: regular and large.

We do not have extensive sizing data, but the regular size fits most adults. To check whether regular or large is the best size to start with, measure from the bridge of your nose to a spot under your chin, as pictured to the right. Use a flexible measuring tape or a string and a ruler.



It is recommended to make one to test the sizing before cutting out the fabric for many masks. Your choice of fabric may also affect how the mask fits you.



## SEWING

Seam allowance is  $\frac{1}{4}$ " unless otherwise noted.

If using a non-woven layer:

- Use a longer stitch length (3.5-4mm) to minimize punctures which could lead to perforating the non-woven layer.
- Do not use an iron, or test your heat settings, as the non-woven layer may melt.



## CUT OUT FABRIC LAYERS



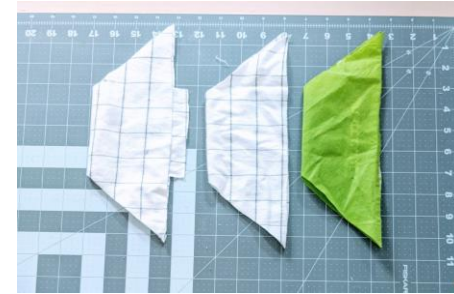
[Optional] Cut one pattern piece on the fold\* of a non-woven grocery bag—no nosepiece flap.



Cut one pattern piece on the fold\* of a tightly woven fabric—no nosepiece flap.

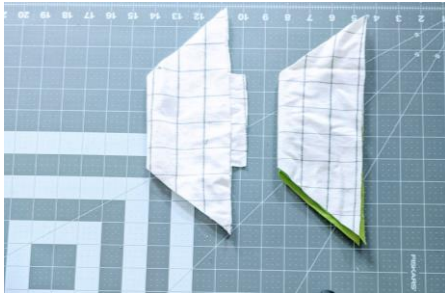


Cut one pattern piece on the fold\* of a woven tightly woven fabric with 1 nosepiece flap.

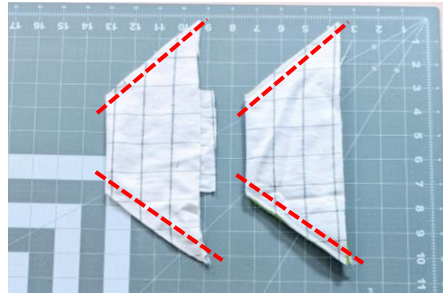


Keep each piece folded in half (right sides together).

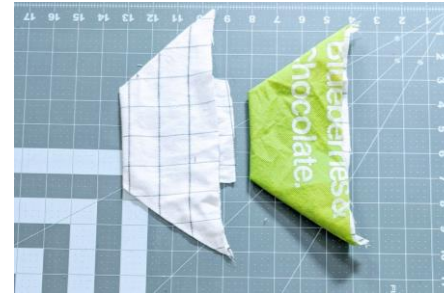
## STITCH MASK SIDES TOGETHER



If using non-woven, put the non-woven piece inside the woven without the nosepiece flap. Treat these 2 layers as one going forward.



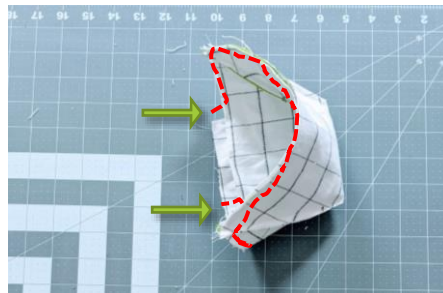
Stitch the angled sides of each trapezoid using a  $\frac{1}{4}$ " seam allowance.



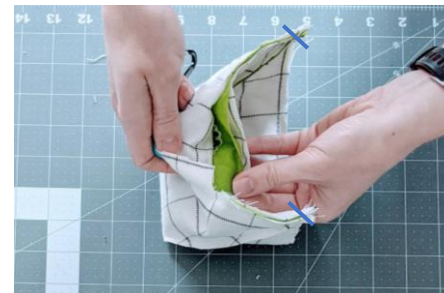
Turn the trapezoid without the nosepiece flap right side out.



Insert inside the other trapezoid (right sides together). Align the edges and seams.



Stitch around the edge, starting and ending outside the nosepiece flap.

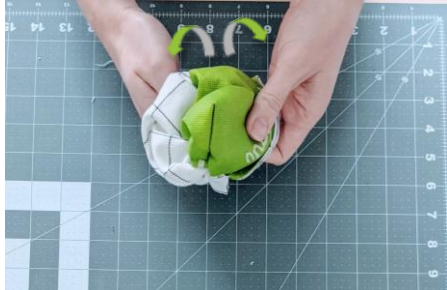


This will leave an opening the length of the nosepiece flap. (Optional) **Trim** excess fabric from the corners.

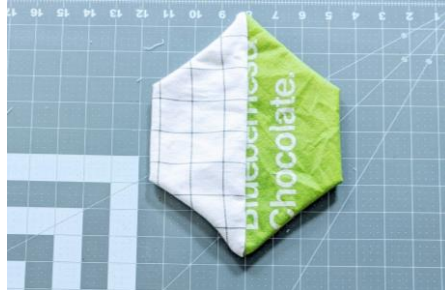




## TURN THE MASK RIGHT SIDE OUT



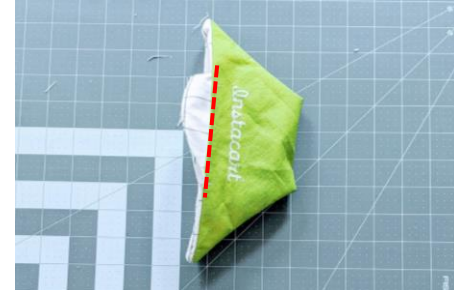
Turn the mask fabric right sides out by pushing through the opening left by the nosepiece flap.



The result will be a hexagonal shape. Make sure the corners are fully turned.



Put the side with the nosepiece flap inside the outer layer of the mask. Finger-press along the edges.

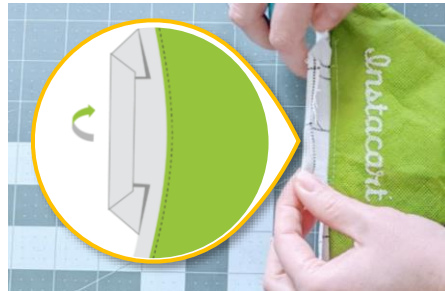


Fold under the outer 2 layers at the opening  $\frac{1}{4}$ ". Stitch as close to the edge as possible, through one side of the mask, to close the opening.

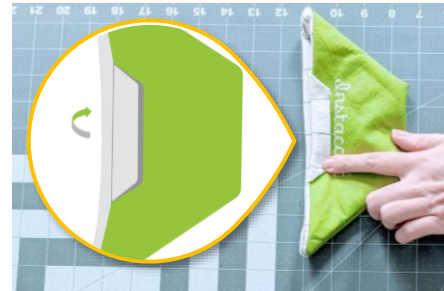
## PREPARE THE NOSEPIECE FLAP & STRAP LOOPS



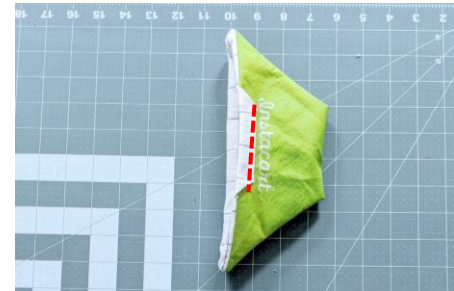
Fold down the corners of the nosepiece flap toward the opening (this will hide the raw edges). Finger-press in place.



Fold over  $\frac{1}{4}$ " of the nosepiece flap towards the outside. Finger-press in place.



Fold the entire nosepiece flap over to the outside from the seam, maintaining the corner and edge folds. Pin in place.



Stitch along the outer edge of the nosepiece flap, through all layers on one side of the mask.



Fold one corner of the mask toward the outside by  $\frac{1}{2}$ ". Stitch as close to the corner as possible.



Repeat the previous step for the other corner of the mask.



### INSERT THE STRAP AND NOSEPIECE



Cut the strap to length. Elastic or a  $\frac{3}{4}$ "-wide strip of jersey works well. Length should be about 26" and stretch to ~40".



Use a safety pin attached to the end of the strap to feed it through the loops on both sides.



Knot the ends of the strap together. There should now be an upper strap and a lower strap.



Insert a piece of moldable metal, such as a coffee bag tie, into the nosepiece pocket.

**WASH AND FULLY DRY THE MASK BETWEEN EACH USE**

Regular



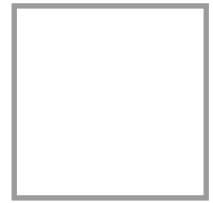
Large



Nosepiece flap



1"



1"

Real scale - Inches

Nosepiece flap

PLACE ON FOLD

PLACE ON FOLD

Print with no scaling or set to 100%  
on 8.5"x11" or A4 paper