

# COVID-19: Product resources for manufacturers

*As of April 9, 2020*

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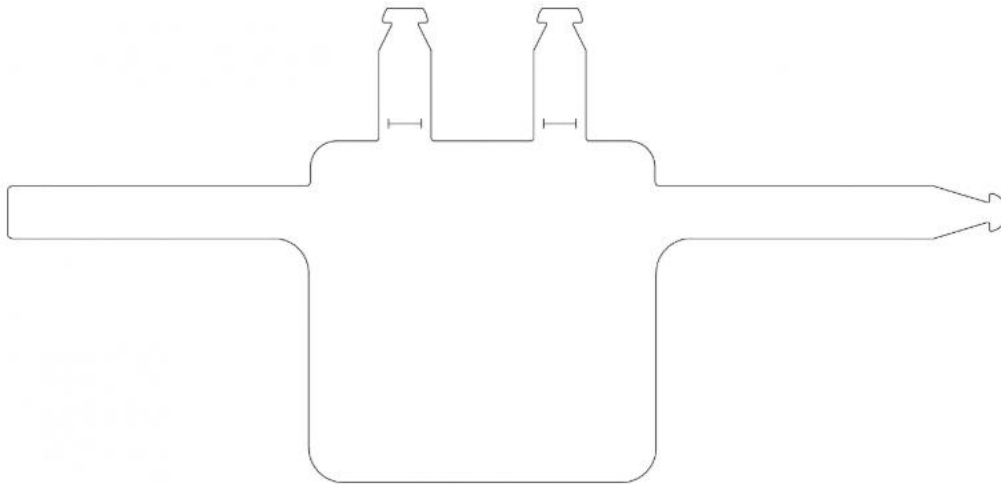
## Columbia University Face Shield Design

Columbia Technology Ventures has created multiple face shield designs that are available for download through a free license. The product designs, license, and donning and doffing videos can be found at:

<https://techventures.columbia.edu/face-shield-designs-columbia-engineers>

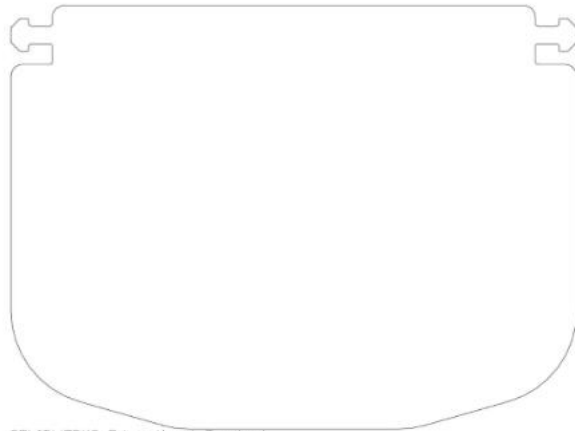
### Face Shield Design 1:

FaceShieldOne is a plastic face shield that is cut out of a flat sheet of plastic and then folded into shape. The design has extender pieces that keep the face shield a comfortable distance away from the face, and, plastic arms that can be folded into a headband that rests above the ears.



## Face Shield Design 2:

A two-piece, low cost disposable face shield manufactured in PET film. Can be fabricated by several approaches: laser cut, CNC knife cut, die cut, rotary die cut, etc. The two-piece design allows for independent materials and thicknesses to be used to minimize cost and waste.



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## Kaiser Permanente Cloth Face Covering Instructions

Kaiser Permanente has created cloth face covering designs to wear in non-clinical settings or for personal use. Instructions include design, step-by-step sewing instructions, and recommended fabrics and can be found online at:

[https://about.kaiserpermanente.org/content/dam/internet/kp/comms/import/uploads/2020/03/02\\_COVID\\_Mask-Instructions\\_v9.pdf](https://about.kaiserpermanente.org/content/dam/internet/kp/comms/import/uploads/2020/03/02_COVID_Mask-Instructions_v9.pdf)



## Isolation Gown Pattern by Fashion Girls for Humanity

Fashion Girls reverse-engineered a pattern based on a commercial AAMI Level 2 Over-The-Head Isolation Gown with Elastic Cuffs. Instructions include cut pattern, images, and video instructions and can be found online at:

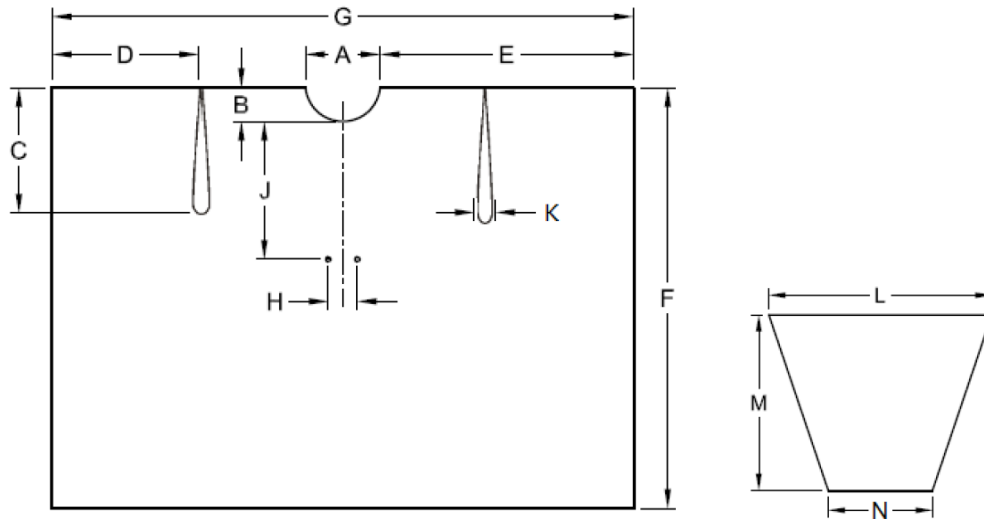
<https://www.fashiongirlsforhumanity.org/products/gown-pattern-package>





### Cardinal Health Recommended Dimension Ranges for Level 1 Isolation Gown

We are sharing Cardinal Health recommended dimension ranges for a Level 1 isolation gown to enable innovators to leverage their resources to evaluate alternative raw material supply options.



#### Body Dimensions

Measurement	A	B	C	D	E	F	G	H	J	K
Standard / XL	6-10"	3-4"	11-13"	14-16"	24-27"	46-51"	55-62"	2-3"	17-18"	1-2"

#### Sleeve Dimensions

Measurement	N	L	M
Standard / XL	12-14"	25-27"	23-26"