

A Rapid Response to Support the Urgent Needs of Healthcare Professionals

An Open Source Design from **EPAM CONTINUUM** 

# THE CHALLENGE

There's an immediate shortage in protective masks necessary to help keep our medical professionals safe. While the supply chain works to backfill the rising gap, EPAM Continuum set out to create a simple, easy to manufacture design that can be quickly and locally manufactured to fill the supply gap in this moment in time.

# THE SOLUTION

The GENTL Mask is an **Open Source design that** utilizes readily available materials and incredibly simple manufacturing processes to enable localized manufacturing to help close the supply gap. The design, currently under review at a top medical institution, includes a Merv 13 filter, designed to capture particles above 1.0 µm.

## THE SOLUTION

A flat-cut, three-layer design that utilizes industrial-grade filter materials capable of capturing particulates down to I.0 micron, sealed between two layers of non-woven polypropylene.

The result is a mask that conforms to the face, providing a comfortable and safe fit. Heat sealed edges force air through the filter and non-woven sheets, while a simple, single loop strap secures it in place. This mask is not intended to provide equivalent protection to an N95 mask; a MERV 13 filter is integrated and provides added protection.



## **MODULAR DESIGN**

A modular approach to the design allows manufacturers to easily produce a two-layer version, used for general protection, or as a three-layer version, utilizing an added industrial-grade filter layer capable of capturing particulates down to I.0 micron for those who need it.



#### \*Available with and without Merv13 filter



## **DESIGNED TO BE SCALED QUICKLY**

A simple, flat-cut design targeted for both low and high-volume manufacturing.



# THE NEED IS REAL

"I am an OB/GYN in Boston working as part of the Incident Command Team. As you all are aware, the PPE (Personal Protective Equipment) situation is dire. We have just two days left of supplies and are being asked to reuse. - MD, Boston Area (3/19)

"PPE consists of face masks (N95) and face shields. Both are in short supply with people stockpiling these at home and stealing them from hospitals. Overall demand grossly exceeds supply globally and production, distribution and supply routes are compromised by the pandemic."

- MD, Boston Area

"NY has a critical need for PPE including gloves, gowns and masks. We need companies to be creative to supply the crucial gear our healthcare workers need."

- Gov. Andrew Cuomo, New York

## **LET'S DELIVER A BETTER SOLUTION**

#### **CDC EMERGENCY GUIDANCE**

"In settings where facemasks are not available, HCP might use homemade masks (e.g., bandana, scarf) for care of patients with COVID-19 as a last resort. However, homemade masks are not considered PPE, since their capability to protect HCP is unknown. Caution should be exercised when considering this option. Homemade masks should ideally be used in combination with a face shield that covers the entire front (that extends to the chin or below) and sides of the face."

https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html



## **GET INVOLVED**

We're looking to connect supply with need.

Please reach out if you're a manufacturer who would like to learn more about the design and manufacturing details.

If you're a healthcare organization interested in evaluating GENTL Mask or looking to place orders, please reach out so we can try to connect you with a local manufacturing source.

EMAIL: GENTL\_Mask@epam.com

EPAM CONTINUUM



# THE SMALL PRINT

EPAM Continuum is not looking for financial gains from this design. We are putting this into the public domain as an Open Source design with the desire to connect local manufacturers with local hospitals in need around the world in an effort to reduce the negative impact of Covid-19 and help to protect our healthcare professionals.

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.

#### EPAM CONTINUUM

# EPAM CONTINUUM

Designing products, services, and experiences that improve people's lives, in small and large ways, while taking our clients' businesses into the future.



#### **Procter and Gamble**

Consumer and technology research leading to invention of the Swiffer

#### Jana Care

A low-cost and connected diagnostics platform for chronic diseases

#### Insulet

OmniPod Insulin Management System was the first tubeless insulin pump

#### **Procter and Gamble**

Heating pads for pain management that can be comfortably worn throughout the day

# The future. Made real.

EPAM Founded

**Continuum Founded** 

1983

Global Reach | Locations

Global Reach | Countries

Employees Worldwide 35,000+

EPAM CONTINUUM