



How GrabCAD Shop Helped Get Thousands of Face Shields to COVID-19 Front Lines

In early 2020, COVID-19 spread across the country, and within weeks, became a global pandemic. The contagious disease that infects people of all ages ambushed the world.

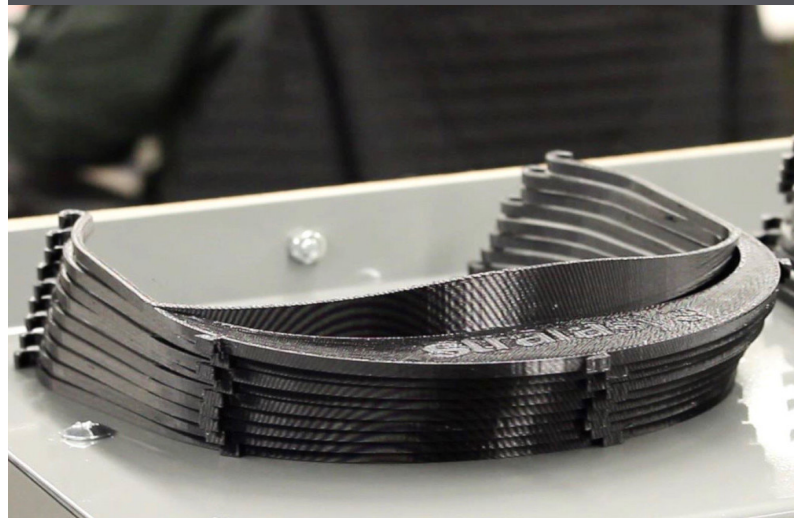
Medical personnel soon became the only hope for the growing millions infected who experienced severe symptoms as the disease wreaked havoc on their respiratory tract. However, as the outbreak continued and hospitals flooded with patients it became apparent that there would not be enough protective equipment to keep front-line workers safe. Protective equipment was needed -- and fast.

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Scott Drikakis

Stratasys Healthcare Segment Leader



That's when the 3D printing community became a beacon of hope. Professionals across the globe started seeing the value in 3D printers and its ability to produce protective equipment faster than any other production method.

Stratasys was among the leaders in the 3D printing community who offered their help. To date, the company -- along with Stratasys partners and customers, 3D printed over 100,000 face shields for hospitals, medical personnel and other first-line responders.

As important as 3D printers were to the process there was one software that helped orchestrate the mass production of face shields: GrabCAD Shop.

Without GrabCAD Shop, 3D printing over 100,000 face shields would not have been possible.

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Stratasys response community
anirudh+admin@grabca...
(Admin)

- Orders
- Shop Information
- Machine Types ▶
- Admin Console

Home / Stratasys Community Face Shields / Orders

Orders

Filters ▾ Active Orders ✕

[New Order](#)

ID ▾	Project Name	Requestor	Submitted	Need By	Delivery Date	Order Status	Price (\$)
15682			5/14/2020	5/28/2020		In Progress ▾	0.00
15658			5/13/2020	5/27/2020		In Progress ▾	0.00
15488			5/12/2020	5/26/2020		In Progress ▾	0.00
15487			5/12/2020	5/26/2020		In Progress ▾	0.00
15398			5/11/2020	5/25/2020		In Progress ▾	0.00
15397			5/11/2020	5/25/2020		In Progress ▾	0.00
15396			5/11/2020	5/25/2020		In Progress ▾	0.00
15395			5/11/2020	5/25/2020		In Progress ▾	0.00
15072			5/7/2020	5/21/2020		In Progress ▾	0.00
15069			5/7/2020	5/21/2020		In Progress ▾	0.00

18 out of 432 orders

Streamlining Face Shield Production

The Stratasys offices in Minnesota became the headquarters for Stratasys employees to 3D print, cut, and ship thousands of face shields to hospitals in need. At the peak of the production process, over 600 companies filled out our response form, either requesting supplies or offering their printing and manufacturing capacity to help.

To facilitate these requests, GrabCAD Shop, Stratasys' new 3D printing management software, was used to receive print orders and fulfill them.

"A virtual model shop was set up in GrabCAD Shop when we realized we needed a way to connect requests from all the hospitals to our 100+ partners who volunteered their printing capacity," explains GrabCAD Shop Product Manager Anirudh Krishnakumar.

"Once we set it up, we had the Stratasys operations team playing the liaison role, tracking face shield requests from hospitals, and uploading them as orders of 100 each to GrabCAD Shop."

Print operators from across the Stratasys partner network used GrabCAD Shop to view face shield orders and fulfill the requests on a first-come first-serve basis. By monitoring the volume of incoming requests, Stratasys partners could plan their capacity, material inventory and pick up orders when they were ready.

The orders also contained all the information operators needed such as:

- Desired completion time
- CAD files
- Acceptable biocompatible materials
- Shipping information

Every time they completed an order (100 face shields), they shipped them and added the tracking information to the same order for monitoring purposes.



Reducing Downtime

GrabCAD Shop was instrumental in preventing downtime. If a partner had available capacity but no face shield orders, the Stratasys operations team would easily view this in GrabCAD Shop and re-assign orders to these partners so they could fulfill them right away.

Using the GrabCAD Shop “comments” feature, operators were able to ask clarifying questions. Each comment notified the Stratasys teams via email, which helped them respond as quickly as possible.

“GrabCAD Shop tracked the entire lifecycle of the requests from the time the hospital requested it, until the time the shields reached the doorstep of Stratasys offices in MN, to then be packed and shipped to the hospitals,” Kumar adds.

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Anirudh Krishnakumar

GrabCAD Shop Product Manager

The screenshot displays the GrabCAD Shop interface for a user named Clint Bosch. The breadcrumb trail is "Home / Stratasys Community Face Shields / Orders /". The user's email is clinton.bosch@stratasys.com. The interface includes fields for ID, Project Name, and Project Code, along with "Add Files" and "Edit" buttons. Below this is a section for "No files selected" with icons for upload and delete. The main content area features two tables. The first table lists orders with columns for Order Date, Need by Date, Delivery Date, Order Status, and Total Price (\$). The second table lists parts with columns for Model Settings, Build Details, Part Status, and Part Price (\$). A comments panel on the right side of the interface shows a list of comments and a "Comment" button.

Order Date	Need by Date	Delivery Date	Order Status	Total Price (\$)
5/14/2020	5/28/2020		In Progress	0.00

	Model Settings	Build Details	Part Status	Part Price (\$)
1	 6-Stack side-by-side Visor.stl Quantity: 1 <input type="checkbox"/> Download	Technology: FDM Material: Any Color: Any	Submitted	0.00
2	 4-Stack Visor Comfort Release.stl Quantity: 1 <input type="checkbox"/>	Technology: FDM Material: Any Color: Any	Submitted	0.00

3D Printing Together While Apart

The Stratasys coalition was able to help over 150 different health systems, including hospitals, clinics, academic medical centers, and nursing homes. 3D printing over 100,000 face shields would not have been possible without the network of companies and employees who made up this coalition, including:

- Stratasys Direct Manufacturing (which has facilities in Eden Prairie, Minnesota; greater Austin, Texas; and Valencia, California)
- Stratasys partner network including CATI, Advanced Tek, and GoEngineer
- Stratasys customers like Boeing, General Atomics, Toyota Motor Company, Medtronic, Dunwoody College of Technology, the University of Central Florida, and the University of Minnesota.

“This rapid, adaptive response is what 3D printing does exceptionally well, and I’m very proud of our employees and partners.”

“I have never seen collaboration across our industry the way I saw it over these critical weeks in the spring,” said Stratasys Healthcare Segment Leader Scott Drikakis, who directed the company’s COVID-19 response in the Americas.

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