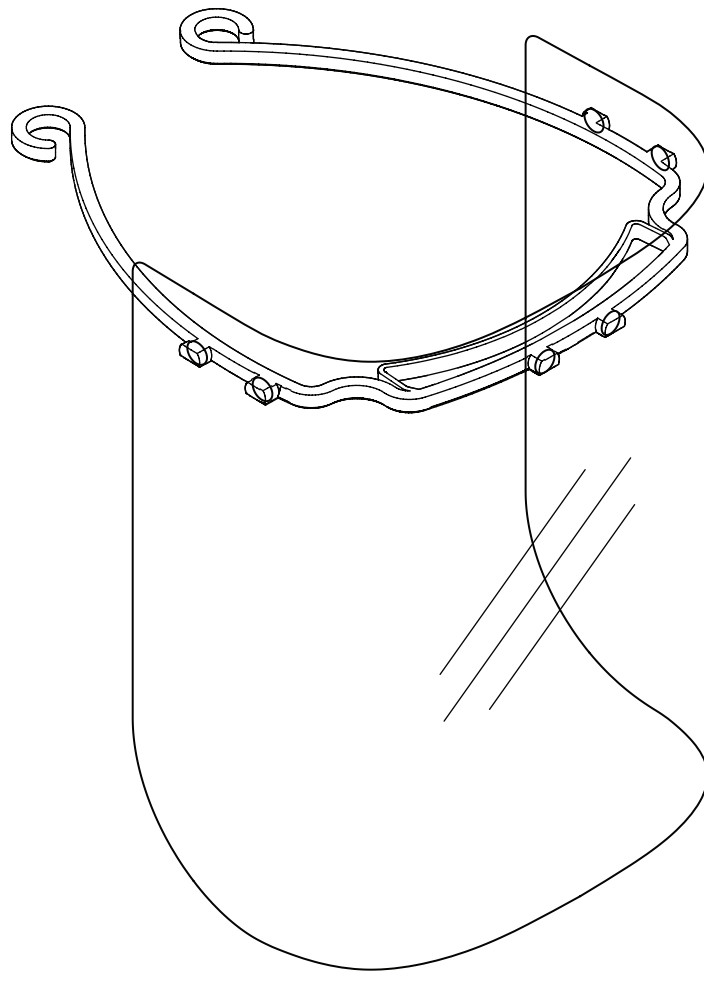# BIG STACK
PPE FACE SHIELD

OPTIMIZED FILES FOR
HIGH VOLUME
STACKED PRINTING

Erik Cederberg from 3DVerkstan created an open source file design for a simplified face shield to protect medical teams on the front line against COVID-19. In response to the acute and escalating need for this scarce life-saving equipment, BIG joins the effort by mobilizing 3D printing and model making capabilities to efficiently produce 50-units within 24 hour cycles per printer. By adapting and optimizing the open source file for high volume print production, we have successfully updated this to a stacked version that is able to print nearly 5,000 masks a week in-house. We encourage everyone to tinker and further optimize this process, so we are making the print files accessible to all. We invite you to check out the files below, print the BIG stacks and join us in equipping our medical forces as efficiently as possible.

We have generated 'plug and play' G-Code for dual extrusion Ultimaker printers (**for PLA with Ultimaker Breakaway support only**) below. We are also offering our Cura files as well as the original .stl for all other printer makes. These files are available below for both the North American and European design so you can simply select the exact file needed for your printer and click start. Note that work is ongoing for a single extrusion stack design and G-Code for single extrusion PLA 'plug and play', which will be made available when we have a stable and reliable solution.

For more information, assembly guides, and contacts for material donation in the New York area, please check out the central hub for Operation PPE in New York: https://www.sabinlab.com/operation-ppe
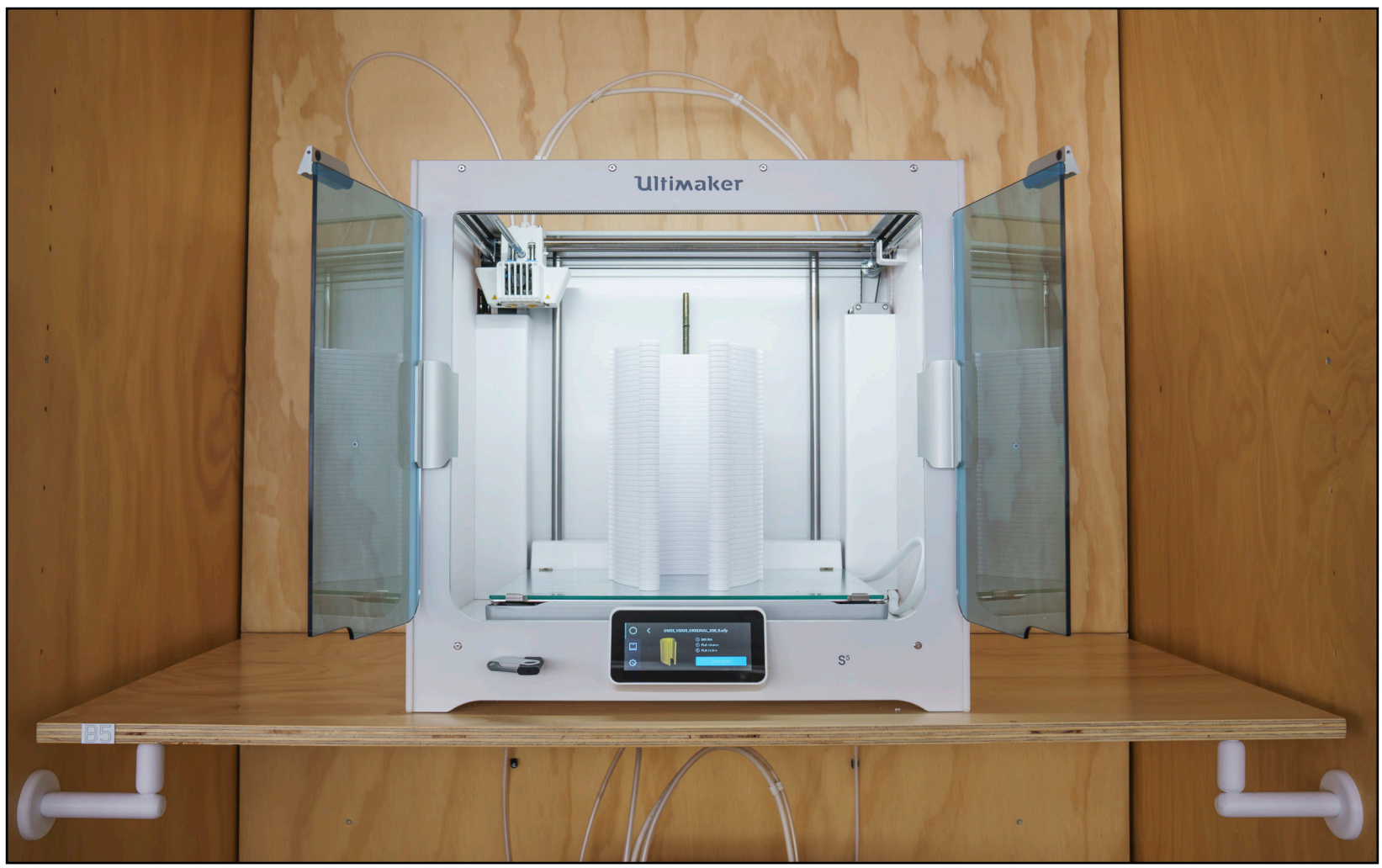
NORTH AMERICA FOR ULTIMAKERS USING 0.40MM EXTRUDERS

3	3 Extended	S3	S5
G-CODE CURA	G-CODE CURA	G-CODE CURA	G-CODE CURA

NORTH AMERICA FOR ULTIMAKERS USING 0.80MM EXTRUDERS***

3	3 Extended	S3	S5
G-CODE CURA	G-CODE CURA	G-CODE CURA	G-CODE CURA

EUROPE FOR ULTIMAKERS USING 0.40MM EXTRUDERS

3	3 Extended	S3	S5
G-CODE CURA	G-CODE CURA	G-CODE CURA	G-CODE CURA

EUROPE FOR ULTIMAKERS USING 0.80MM EXTRUDERS***

3	3 Extended	S3	S5
G-CODE CURA	G-CODE CURA	G-CODE CURA	G-CODE CURA

.STL FILES For ALL OTHER DUAL EXTRUDER PRINTERS

OPEN SOURCE

NORTH AMERICA .STL BUNDLE
EUROPE .STL BUNDLE

[each bundle is three different size stacks - 12, 36, 50]

.STL FILES FOR SINGLE EXTRUSION PRINTERS

COMING SOON!

***When loading the breakaway material for the 0.80MM extruder, select "Generic PLA" on your printer, <u>NOT</u> Ultimaker breakaway. If using the RFID spool holder, either disconnect or load the material with the spool away from the holder so it does not auto-detect.

S3 and S5 G-CODE will provide the proper .ufp file format

All Cura files generated with Ultimaker Cura 4.5

Lastly, show us your prints by tagging #BIGSTACK and @big_builds, and help us share the files with the larger printing community worldwide!