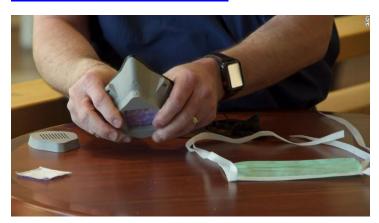# Library Tip Sheet 03/25/2020: 3D Printer-made Masks and Face Shields for High-Risk Health Care Workers

1 THE ISSUE

Library leaders are asking themselves how libraries can help their communities in the ever-changing face of the COVID-19 pandemic. One of the glaring problems now is that health care workers are without sufficient personal protective equipment (PPE), including medical masks. On March 19, 2020, Dr. Peter Slavin, president of Boston Mass General Hospital, issued a call to anyone with a 3D printer to help make masks. That led some library leaders with that technology to think about the possibility of helping in this way. This Tip Sheet was created to help those leaders.

2 3D PRINTER MASK PRODUCTION: WHO IS DOING IT IN LIBRARIES

In Billings, Montana, Dr. Dusty Richardson in collaboration with dentist Spencer Zaugg and his son Colton, and with the local company HiTech Filters, are using 3D printers to make reusable plastic face masks and filters. https://www.cnn.com/2020/03/23/us/coronavirus-3d-printed-medical-supplies-trnd/index.html

The Zauggs have four 3D printers. According to CNN, Billings Public Schools are closed because of the coronavirus, but some teachers went back into their classrooms to start printing out masks on their schools' machines. Libraries across the state will also print the masks along with Montana State University Billings and Rocky Mountain College, among them, Weaver Library on the campus of Great Falls College.
https://www.greatfallstribune.com/story/news/2020/03/25/great-falls-college-testing-phase-create-masks-health-care-workers-3-d-printers/5078962002/

3   3D FACE SHIELDS

The owners of an upstate New York company that makes 3D printers, Budmen Industries, say they have stopped taking orders so they can focus on making face shields for medical workers and first responders. According to the website, what started in their basement just days ago has grown into a global network of 3D Face Shield producers willing to help health care organizations in dire need. They say they are connecting producers directly to the health care workers in their geographic region.

The website asserts that they are also helping their hometown. The funds donated will be used to produce, assemble and distribute as many face shields as possible to Onondaga County and the surrounding geographic area. The goal is to donate as many 3D Face Shields as they can produce to CNY health care workers. Any additional funds will be donated to charities assisting health care workers. Specifics can be found on the website. There also links to obtaining supplies.

4   FILES AND INSTRUCTIONS

The instructions for **masks** being produced by the Spencer Zaugg family in Montana are posted here: https://longliveyoursmile.com/3d-printable-mask-for-covid-19/. This link describes the filters that HiTech will produce https://youtu.be/I7imofVk-pk in order to streamline the process of producing the masks.

The instructions for the **face shields**, https://budmen.com/, downloadable face shield files, including 3D models, templates and assembly instructions. If you are willing to produce 3D face shields for health care workers battling COVID-19, you can register to be connected with a health care facility in need.