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They've Got You Covered

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A School of Design instructor leads a cottage industry of makers protecting essential workers from the novel coronavirus

They've Got You Covered

Amid the bleakness of the COVID-19 pandemic, the Illinois PPE Network is an inspiring grassroots success story. Comprising volunteer makers of personal protective equipment (PPE) across the Chicagoland area, the alliance was seeded at DePaul's Idea Realization Lab (IRL) by its director, Jay Margalus, a School of Design instructor.

This past summer, the network began distributing face shields, cloth masks, door handle adapters and reception desk plastic shields to schools and restaurants grappling with ways to reopen safely. But Margalus and several faculty members and graduate students first got the ball rolling back in March when it became apparent that frontline health care workers didn't have enough PPE when the first wave of COVID-19 cases swept into Illinois.

Margalus and IRL student worker Michael Koenig, an MFA candidate in film and television, got their hands on 3D printers from the main lab on the Loop Campus. Associate Dean and Professor Theresa Steinbach headed to the Lincoln Park Campus to retrieve 3D printers from

the IRL2 makerspace with Eric Landahl, a College of Science and Health physics professor, and his wife, Sarah Rice, a biochemist and physical therapist. They brought some machines home and distributed others to graduate students. All turned their attention to making plastic face shields and N95 mask covers day and night.

Despite their efforts, "It was quickly obvious that it wasn't sufficient enough for the demand," says Margalus. "And by quickly, I mean within about a day."

Margalus grew the network with the help of friends in the maker community, among them public school teachers, librarians and museum professionals. Jeff Solin, a teacher at Lane Tech High School in Chicago, designed a way to laser-cut a face shield and its strap components from a single piece of PETG plastic, a method faster than 3D printing.

Industry partners stepped forward to donate labor and supplies. Triangle Dies and Supplies die-cut face shields for free at a production rate of 2,000 per hour. Robert Bosch Tool Corporation churned out more than 30,000 face shields at its Dremel DigiLab subsidiary. Coca-Cola donated



Staff at John H. Stroger Jr. Hospital of Cook County received Illinois PPE Network face shields.

three tons of plastic. School of Nursing faculty and staff, bicycle couriers, medical students and military veterans helped distribute the finished products that filled a critical shortage last spring before the U.S. Food and Drug Administration eased requirements that had hindered large-scale production.

"It's been heartening to see that the dysfunction at the top doesn't destroy the resiliency of the people on the ground," says Margalus.

In addition to supporting school workers, the Illinois PPE Network has lately turned its attention to disseminating educational guides for using PPE effectively. "It has always been our preference at makerspaces to do work that has tangible, immediate benefits to people," says Margalus. "In this case, it's helped keep people healthy and alive. I'm very proud of DePaul, because more than any other university, we have walked the walk."



Jay Margalus and Michael Koenig retrieved DePaul's 3D printers for makers to fabricate PPE at home.