

USU Extension 4-H Youth 3D Print Face Shields for Utah Hospitals

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Face Shields

Utah State University Extension 4-H youth have answered the call to help protect health care workers in rural Utah areas.

Through the coordination efforts of USU's Utah Assistive Technology Program, more than 900 face shields have been produced and donated to local health care workers. However, an additional 550 masks are still needed.

David Francis, USU Extension youth program director, heard of the need through USU communications, and knew the project would be a perfect fit for youth involved in 4-H STEM programs. He sent a request to 4-H youth and leaders.

Josh and Kaleb Van Wagoner, along with their Salt Lake area 4-H family and neighborhood club, GForce, stepped forward to help. When school let out in March due to COVID-19, they started the 3D printing process to produce face shields. Each shield takes approximately 2 hours to print and requires changing programs three times for each shield. The boys started cutting shields with a laser cutter in addition to the 3D printers, which greatly increases the number of masks that can be produced. So far, they have printed about 200 shields, and they will keep printing as long as there is a need.

Kaleb said he starts printing face shields before he begins his school work. In the middle of his studies, he starts

a new shield, then prints more when he's finished with school.

"It makes me feel good to help people," he said.

Francis said USU Extension 4-H programs were pioneers in the Maker Movement.

"This early adoption led to a variety of programs that used the tools and expertise necessary for projects like 3D printing," he said. "When you couple that with the values found in the 4-H pledge, 'I pledge my hands to larger service,' it helps instill in our youth the attitude and willingness to serve the community. We're very proud of these youth for using their skills and time to help our healthcare workers."

Josh said 4-H offers a lot of opportunities to give service.

"This is a great way to give back to my community," he said.

Francis said 4-H is committed to providing as much help as possible during COVID-19, whether through service to communities or to the youth.

"Young people are experiencing a world of uncertainty as they navigate the impact of the virus," he said.

According to 4-H.org, 55 million school children have been impacted by school closures and are in need of help, especially the 7 million who do not have Internet access in the United States.

Francis said a fund was created to support youth from all communities, with or without Internet access. The FOURWARD Fund's purpose is to ensure that all kids have access to necessary resources and meaningful learning opportunities during the pandemic. Visit <https://4-h.org/ways-to-give/fourward/> for information and to donate.

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