

# Chippewa Valley student, teacher home manufacture masks

By Nicole Tuttle for The Macomb Daily  
April 22, 2020

Many businesses and individuals are mobilizing their resources to make items high on the list of needs for frontline workers in the fight against COVID-19. Masks and hand sanitizer are among the most critical items, items which one local student, one teacher and one business exemplify the innovation necessary to make a difference.

William Kummerl, 16, is a sophomore at Chippewa Valley High School in Clinton Township who turned his interest in 3D printing into a mechanism for producing filtered masks, utilizing four 3D printers at his Clinton Township home to produce about 25 masks per day.

"I have always wanted to help out in any way I could with my 3D printing," Kummerl said.

The son of Chippewa Valley Schools Destination Imagination Coordinator Kristen Kummerl, he has been in the Destination Imagination program since kindergarten. Destination Imagination is a global educational non-profit program that seeks to showcase the problem-solving skills of students, offered in Chippewa Valley Schools through the district's community education program as an extracurricular activity.

Kummerl first became interested in 3D printers about two or three years ago, having been introduced to the technology by a friend and having seen one at work through his Destination Imagination experience. He is self-taught in the technology, but recently began to enhance his skills through school classwork. Kummerl began just printing things that interested him, but expanded into printing items such as wrestling trophies.

With the onset of COVID-19, a family member on the west side of the state sent Kummerl information on the Montana Mask design, encouraging him to use his 3D printing skills to produce the masks. Kummerl reached out to obtain more information from the Billings Clinic in Montana regarding the free mask design and additional materials, and began to produce the masks and ear guards a little over a month ago. Thus far he has printed over 250 masks.

Kummerl has five 3D printers, purchased with money earned mowing lawns, shoveling snow and savings from birthday or holiday gifts. He said four of these five printers are able to produce the masks.

"They take a while to print, so I could start to print and study or do homework or something like that," Kummerl said.

Kummerl has shipped the masks to healthcare workers not only in Macomb County hospitals and nursing homes, but also to those in Saginaw and the Upper Peninsula.

Although he originally paid the costs for producing the masks out of pocket, Kummerl is now seeking donations to purchase supplies to continue to produce the masks and to ship them. Those interested in making a donation can visit [facebook.com/donate/2606429999575209/?fundraiser\\_source=external\\_url](https://facebook.com/donate/2606429999575209/?fundraiser_source=external_url).

Healthcare agencies interested in obtaining masks from Kummerl can contact [3dfinitymasks@gmail.com](mailto:3dfinitymasks@gmail.com).

Colleen Romanchuk teaches art at Chippewa Valley's Seneca Middle School, located in Macomb Township. She has dedicated her spare time and sewing skills to create homemade masks for donation to hospitals.

"I started making masks mid-March, shortly after we found out that school would not be in session for a while. I started to notice on social media that some organizations were interested in homemade masks," Romanchuk said.

She selected a hospital-approved pattern, then utilized cotton fabric, elastic and thread she had to begin the project. Requests soon followed from a respiratory therapist friend at a Henry Ford Health System facility, an assisted living facility, and from Romanchuk's family and friends.

"I have made approximately 50-ish. I had a sewing machine melt down and finally borrowed one from a neighbor, so that put me behind. I don't work on them every day, but try to find time every few days to make as many as I can. I am currently waiting on an elastic order because it is impossible to get in the stores now," Romanchuk said.

Allied PhotoChemical Inc. is a manufacturer of UV, water and solvent and hybrid coatings technologies. The company, founded in 2000 and currently located at 16024 Angelo Drive in Macomb Township, includes manufacturing process consulting services and on-site support services for problem solving in markets such as 3D prototyping, automotive, pipe and tube, plastics, wood, medical and aerospace. The company now also produces hand sanitizer in response to needs created by COVID-19. Allied PhotoChemical, Inc. Chief Customer Officer Michael Kelly said that this expansion was a natural extension of the company's business, and that it had all the necessary equipment, packaging and knowledge for production, as well as a quality process in place.

"Three weeks ago we were contacted by state and federal authorities looking to scale up medical production, and one of the things was hand sanitizer," Kelly said.

Since production began, it is estimated the company, which has 16 employees, has created over 13,400 gallons of hand sanitizer, Kelly said.

Those deemed non-essential to production are working at home, and those deemed essential to production go through a series of health checks prior to working in a restricted environment.

The hand sanitizing products it is now producing are for sale to the local manufacturing base and service industries of Macomb County, and donations have been made to healthcare professionals and first responders. Macomb Township Fire Department, Macomb County Sheriff's Office and Gleaners

Community Food Bank are among those that have received donations, Kelly said. Companies interested in purchase or essential workers in need of donations can contact [info@alliedphotochemical.com](mailto:info@alliedphotochemical.com)