

# fine PRINT

Story by Ellis Preston, Illustration by Alanna Jimenez

“Right as the pandemic started, I got my spools and just started printing. I wanted to be able to have a positive impact, and help in any way I could.”

- Junior Justin Levy

## 3D printing allowed junior Justin Levy to support frontline workers

A large box of neon plastic spools arrived at Junior Justin Levy's doorstep, waiting to be 3D printed into face shields and donated to first responders.

After Levy saw a Tweet asking for people that would be able to print face shields for hospitals, Levy got to work.

"I saw the need," Levy said, "and I wanted to help out."

He started off by printing 20 face shields in a week, and by May 2020, that turned into 40 a day. As of the following November, he had printed over 1000 face shields with his 3D printer and was still going strong.

3D printing started to catch Levy's interest in 2017 when its community started growing. He first got his own 3D printer in 2018, hoping to have some fun.

"For me it was originally just a toy," Levy said, "but then I started to realize how much it really was a tool."

When he ended up creating a shelf bracket for his mom, he began to realize that he was able to use the 3D printer to help out his family, creating a smooth transition to helping his community.

"It was fulfilling being able to really help and see the need of what was happening," Levy said. "Just seeing the smiles and thanks I was getting was all I needed."

Because of his donation endeavor, Levy was recognized for his 3D printing by the LA times in an April 7, 2020, article titled, "El Camino Real wrestler Justin Levy makes face shields with 3D printer."

"I went off the cuff [in the interview]," Levy said. "It was so quick, and I wasn't really planning on it."

After the LA times interview, Levy was also interviewed by Joe Telling, a YouTube influencer with a channel called "The 3D Printing Nerd."

"[Telling] is actually one of the first people who really started posting videos about 3D printing," Levy said. "Watching him really inspired me to start working on 3D printers."

Each individual face shield took around 20 minutes to print.

"I have to make sure I am monitoring them as closely as I can," Levy said. "It's such a big amount of time."

Levy used the Prusa i3 mk3 model,

which he said is the "gold standard" for 3D printing. The plastic he used to print the face shields is called PetG.

"It's the same material that water bottles and soda bottles are made from," he said.

The plastic cost around \$25 per kilogram, which comes out to about 65 cents per face shield. In order to fund his project, Levy often paid out of pocket, but he also sought out donations.

"I got some funds donated from family and friends," Levy said. "Then through the organization I was working with, Masks for Docs, they donated a few spools of film, too."

Levy worked with Masks for Docs as well as the organization Crash Face LA in order to find places to donate the masks. As the pandemic continued into the new year, Levy also partnered with Toys for Tots to donate printed toys for children in addition to face masks for hospitals.

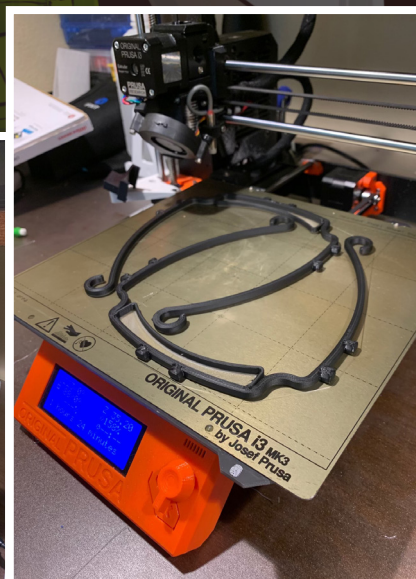
"I just donated a couple of spools of film and we are creating flexible toys for kids in need," Levy said. "I felt really grateful that I was able to help in some way in this craziness that's going on in the world."

### Wield shields

The first test-run of face shields print out. Junior Justin Levy chose the public domain design from 3DVerkstan over others because of its strength and minimal material. Photo by Justin Levy, printed with permission

### For the kids

As part of a donation program for children, junior Justin Levy's printer runs toy dinosaurs. He began with printing toys and other around-the-house objects, but soon saw 3D printing as a tool for making a difference. Photo by Justin Levy, printed with permission



### The Giver

After donating 3D printed face shields to West Hills Medical Plaza, junior Justin Levy shares a few words with a healthcare worker. Photo by Justin Levy, printed with permission

## how do you HELP?

Donations for pandemic essential workers came in a variety of forms

"I've donated my family's extra food for firefighters." - junior Noa Levy

"The club I run, Recycle for Research, organized a snack drive for the medical front line workers." - junior Donovan Martel

"My mom's a nurse, and we had a 3D printer at home, so we [also] made masks." - sophomore Julia Borruel-Oliver