


# Lane Tech Students Get Crafty With First Maker Lab in CPS

By Ariel Cheung (<http://www.dnainfo.com/chicago/about-us/our-team/editorial-team/ariel-cheung>) | April 30, 2015 5:43am

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Lane Tech Maker Lab

**NORTH CENTER** — For the first year at Lane Technical College Prep High School (<http://www.dnainfo.com/chicago/places/lane-tech-college-prep-high-school>), students in the Innovation and Creation Lab are learning how to make stuff.

Make what, you ask? Everything. Anything. From a coat rack to a heating vent cover to works of technology-aided art, the goal of the school's new Maker Lab (<http://www.dnainfo.com/chicago/tags/maker-lab>) is discovering the simple pleasures of creating.

It's a tech ed class for the 21st century, combining physical craft with technology. When one team of students made virtual reality glasses (akin to the Oculus Rift), a quick-fingered student quilted a padded holster for the wearer's comfort.



Lane Tech students used acrylic and a laser cutter to create a board that combines the Chicago skyline and city flag as part of the new creation and innovation class. [DNAinfo/Ariel Cheung]

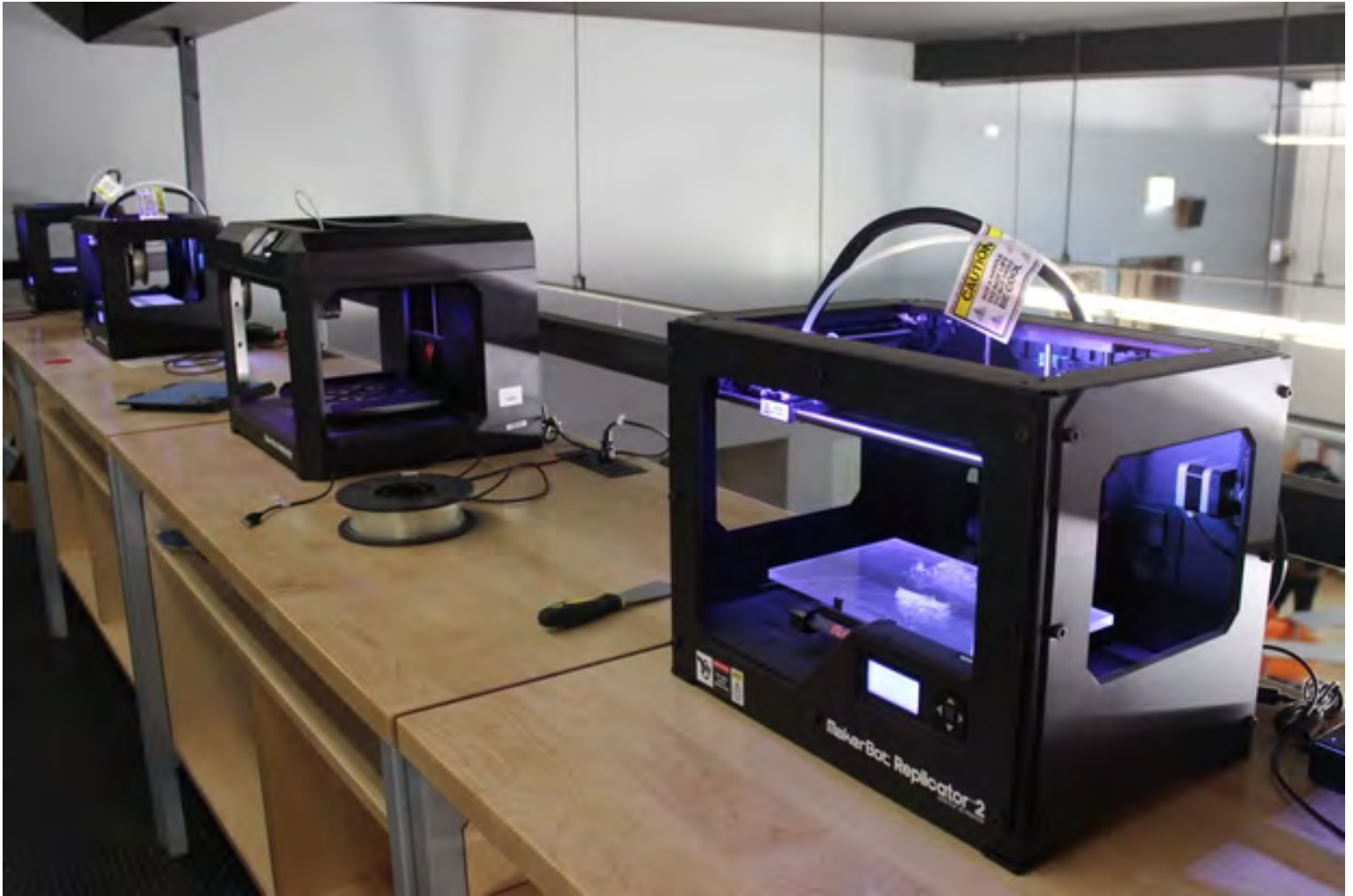
"The really beautiful part of the space is it's a convergence of many areas — you've got engineering happening in here, design, computer science, art. Generally what we're doing is going through the design process and coming up with ideas to solve problems," said teacher Jeff Solin.

Last year, Solin asked school administrators to purchase items like a 3-D printer and scanner to build into computer science curriculum.

They one-upped his idea and gutted a former faculty lunchroom to create an entire Maker Lab, the first in Chicago Public Schools and a rarity for K-12 schools in general. The concept is relatively new but gaining momentum, with Maker Labs opening at the Harold Washington Library (<http://www.chipublib.org/maker-lab/>) and the University of Illinois (<http://makerlab.illinois.edu/>) in 2013.

The school's Parent Teacher Association and The Century Foundation paid for renovations and some of the tools, while the school budget covered the rest, said outgoing principal Christopher Dignam.

In the mid 1990s, many Lane Tech classes like shop or electronics were removed in favor of college prep courses. But as the only selective enrollment tech school at CPS, it's important to focus on technology that will be useful for the next decade, Dignam said.



Lane Technical College Prep High School built a maker lab in a former faculty lunchroom. The lab has multiple 3-D printers in its upper level. [DNainfo/Ariel Cheung]

"I'm a Lane alum myself, and I wish the school had the programs we had now. What we did here the past few years was almost like a grassroots movement putting technology in the school. I'm extremely proud of it," Dignam said while also touting the school's robotics and aquaponics programs.

For the 2014-15 school year, Solin tested out a new curriculum for the class, hoping his trial-and-error method would rub off on the students.

"I think a lot of kids today have a lot of trouble with their concept of failure, but I want this to be a place where they can feel comfortable failing by trying and learning by doing," Solin said. "Things break and wheels fly off and screws are loose, and I have to rebuild things in the true spirit of what the class is."



Computer science teacher Jeff Solin discusses a project with Lane Tech senior Krzysztof Radamski in the school's Creation and Innovation Lab. [DNAINfo/Ariel Cheung]

Students use open-sourced software and Adobe Illustrator and Photoshop to design projects, which they then build in the lab. As part of the class, students take on "clients" (usually teachers or fellow students) and create a solution to a problem. Experiencing the entire process is important, as is the ability to be creative, Solin said.

Initially, the first class project was creating cube-shaped calendars on the laser cutter. When one students began carving a comic on the box instead, Solin changed the project to allow for that freedom.

"I've been trying to find the right balance between getting everybody to go through the process and leaving creative flexibility, I've been screwing it up and fixing it and re-doing it over and over again throughout the year. But I think we've got something really special. It's been awesome," Solin said.



Among many projects designed to help a teacher, student or other client solve a problem, Lane Tech students designed a vent cover for the Innovation and Creation Lab featuring a portrait of teacher Jeff Solin. [DNainfo/Ariel Cheung]

Students have been "thrilled" with the class, which is one of the school's most popular, said assistant principal Damir Ara. The mobility of the classroom itself and the unusual projects are attractive, especially for students preparing for college.

Even though Lane Tech senior Saood Karim doesn't plan to study computer science in college, he said Solin's class was a great experience.

"You turn what you make into something real, so you actually see the results. That gave me extra motivation to learn, because I wanted to make better stuff," Karim said.

And that's exactly what Solin is aiming for.