



# Application Story

SOUTHVIEW MIDDLE SCHOOL GETS A GRIP ON DESIGN  
WITH DIMENSION 3D PRINTING

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*– Peter Grimm, Industrial Technology Teacher,  
Southview Middle School*

## CASE STUDY



Was your car built before the turn of the new millennium? If so, chances are you’re among millions of Americans who have fallen victim to a common problem: ill-fitting cup holders.

Peter Grimm, an industrial technology teacher at Southview Middle School in Edina, Minn., has challenged his eighth-grade pre-engineering students to find a solution for this messy problem. And the Dimension uPrint™ Personal 3D Printer is helping students find creative answers.

Grimm first saw the educational power of 3D printing earlier in his career when he started a Minneapolis school’s partnership with Project Lead the Way (PLTW). PLTW is a national program that provides curriculum and partnerships with the private sector to increase the quantity and quality of engineers and engineering technologists graduating from our educational system.

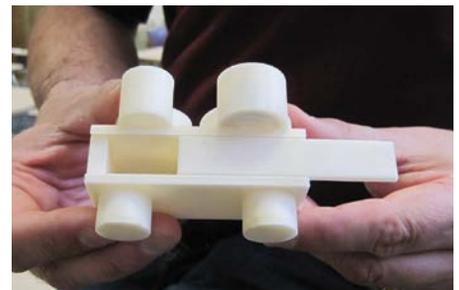
## Weighing the Options

After transferring from Minneapolis to Edina, Grimm started the PLTW partnership at Southview and began investigating the purchase of a 3D printer to enhance the program.

Prior to his transfer to Southview, Grimm had several years of experience with printers from Dimension and a competitor. “The Dimension printer was just better suited for the educational environment,” said Grimm. “The cost, ease of use, and durability of the printed models produced led me to choose a Dimension 3D Printer.”

Grimm purchased a uPrint® Personal 3D Printer from First Technologies, Inc., a Dimension authorized reseller that provides curriculum, computer hardware and software, lab equipment, lab furniture and training across the states of Wisconsin, Minnesota, North Dakota, and South Dakota.

“Peter was familiar with the high quality models produced by the Dimension 3D Printers and uPrint delivers this technology in an even more affordable package,” said Dan Hoerl of First Technologies. “uPrint’s compact size has also proven to be a big plus for the school district as Southview is able to easily transport this technology to different sites, as needed.”



## Generating Excitement with 3D

Grimm has seen the level of student momentum for the PLTW curriculum take off, and he believes this excitement can be attributed in large part to the addition of the Dimension 3D Printer. “uPrint has really helped bring kids into the engineering lab,” Grimm says. “They’re able to see their CAD drawings become three-dimensional working models. It quickly brings designs that only existed in the students minds to life.”

Edina School District has placed a high priority on “twentieth century literacy,” which Grimm explains moved the district to require all 800 seventh and eighth grade students to enroll in Gateway To Technology (GTT), the cutting-edge program that addresses the students’ interests and energy, while incorporating national standards in mathematics, science and technology. The uPrint has enhanced the student experience in the GTT program Southview offers by allowing them to see their concepts come to life as physical models and re-work these designs through multiple iterations. Courses are split into Design & Modeling and Automation & Robots for seventh graders, and Flight & Space and Magic of Electrons for eighth graders.

## uPrint’s Mobility a Plus

While Grimm hopes to purchase a second 3D printer within the year, the school currently shares its uPrint with Valley View, another Edina middle school. “At around 120 pounds, Dimension’s uPrint is easy for a few people to lift, which allows us to transport it easily between the two middle schools. A competitor’s smallest model weighed nearly 80 pounds more.”

## Parents Get in on the Fun

Since introducing the uPrint to his students in last spring, Grimm has heard great feedback from parents.

“There are a number of engineers in this community. I think it’s exciting for them to see their children get their hands on this kind of technology. uPrint is something that is not only helping my students better understand engineering, but it has elevated the excitement level in the classroom – and it has been a great promotional tool for our program,” Grimm adds.

“We bring it to fundraisers and get lots of ‘oohs’ and ‘ahhs’ from potential donors. It also makes the rounds at teacher conferences. Keeping enrollment strong in design and engineering courses is always a consideration,” says Grimm. “The uPrint helps a great deal in this regard and the enthusiasm it generates is priceless.”

And it just might keep the coffee mug in your 1997 Toyota Camry safe and sound...



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