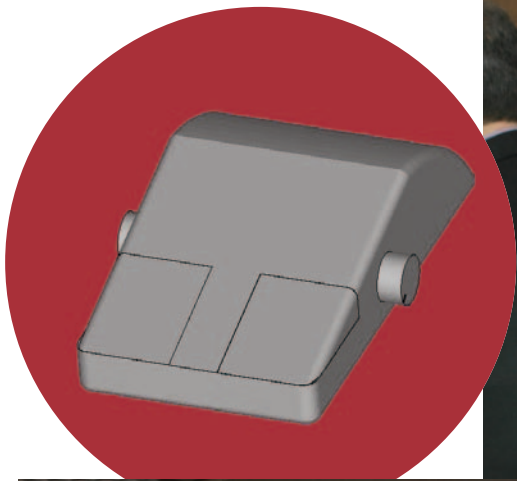


## Kids Design the Darnest Things



High school team winners Geoff Glidden (*left*) and Anthony Borzillo designed the high school team first-place winning radio mouse (*far left*).



Post-secondary individual winner Mark Paul Kujawski (*left*) talks with Scott Crump, CEO of Dimension 3D Printing at the ceremony.



Andy Dahnke's lighted retractable leash won first-place in the high school individual category.

By Len Vermillion, Managing Editor

# Kids Design the Darnest Things

Do you need a “Tapeleer” for your desk? What about a lighted retractable leash for walking your dog in the middle of the night? Perhaps you’d like to listen to the radio on your computer - in your mouse? These are just a few of the ideas high school and college student designers came up with in a contest held by The Dimension 3D Printing Group.

Called “Extreme Redesign: The 3D Printing Challenge,” the contest is a global design and 3D printing competition for budding engineers. The contest called for students to submit their most creative, useful, and innovative redesigns of already existing products. The contest asks student to come up with new perspectives on everyday products or give a fresh vision to anything from a famous piece of art, animation, or architecture.

“These students have incredibly innovative ideas. They took simple problems and created simple solutions,” says Pete Van’t Hoff, CAD department manager of Arctic Spas, who served as one of the judges for the competition. “As designers, we always look for the simplest solution to a problem because it’s less time-consuming and more cost-effective to implement. These students did just that.”

The students not only opened some eyes with their redesigns but also, for the winners, gained some money for their education. The winners in three categories – high school individual, high school team, and post-secondary individual – were awarded \$2,500 scholarships at an awards ceremony held at the National Design Engineering Show during National Manufacturing Week in Chicago. Two runners-up in each category were awarded

with \$1,000 scholarships. All of the winning redesigns were displayed at the Dimension 3D Printing booth at the show.

Students entering the contest submitted .stl files and a 200-word description of the value of their redesigns to the Dimension 3D Printing website. The company then sent 3D prints of the designs to the entrants. From there, the students had the opportunity to make any necessary design improvements and develop a second iteration for final submission.

One of the students submitting a design was Mark Paul Kujawski, a senior at Central Michigan University. Kujawski took home the first-place prize in the post-secondary individual category for his stair-climbing robot. He designed his robot using I-DEAS software but he says he’s already been trained in most of the major CAD packages. “I use I-DEAS the most though because it seems to work best for me,” he says.

Already studying engineering, he says he’ll probably be working as an engineer when he graduates but remains unsure of exactly what he’ll specialize in. “I feel really good about winning,” he says. “I don’t know what the next step will be.”

Two other students in the contest were Geoff Glidden and Anthony Borzillo, both of Rockwood Summit High School in Fenton, MO. They came up with the idea for the mouse radio, a computer mouse with built-in radio capability to put listening to music at a user’s fingertip. Together, the pair made up the first-place winners in the high school team category.

Like Kujawski, they are also trained in several CAD packages but chose Inventor to perform this task, saying that it’s what

they’ve studied the most in school. They also say they’ll pursue engineering careers in the future. “I plan on being an aerospace engineer,” Glidden says. Borzillo plans on keeping his options open. “In engineering, there are a wide variety of opportunities,” he says.


The other first-place winner was Andy Dahnke of Careerline Tech Center in Jenison, MI. His lighted retractable leash took the top honors in the high school individual category.

The runners-up in the high school individual category were Brian Krische of Watertown High School in Watertown, WI, for a computer mouse with a fan and Tony Vatter of the Huron Area Technical Center in Bad Axe, MI, for a combination tape dispenser and stapler called the “Tapeleer.”

The runners-up in the high school team category were Jeremy Verbit and Kevin Onofrey of Warren Consolidated School District in Warren, MI, for a cart clip and Marc Marquez and Cory Ford of Harper Woods School in Harper Woods, MI, for an auto light changing lamp.

The runners-up in the post-secondary individual category were Matt Sullivan of St. Cloud University in St. Cloud, MN, for a gum case and Aaron Deevers of Indian Hills Community College in Ottumwa, IA, for a drill jig.

## NEXT STEP

 More information on “Extreme Redesign: The 3D Printing Challenge” is available at [www.dimensionprinting.com](http://www.dimensionprinting.com) or by calling 952-937-3000.