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# Engineering Students' Winning Designs Unveiled in 2011 Extreme Redesign Contest by Dimension 3D Printing

MINNEAPOLIS--(BUSINESS WIRE)-- Dimension 3D Printing, a brand of [Stratasys](#), Inc. (NASDAQ: SSYS), today announced the [winners](#) in its seventh annual Extreme Redesign 3D Printing Challenge.

Prince's redesign improves adjustability and functionality of the prone stander, allowing children of all different shapes and sizes with cerebral palsy to be comfortable and accommodated. (Photo: Stratasys)

The contest challenges students worldwide to submit their designs for a new product concept, a new perspective on an existing one, or a work of art or architecture. The winners were selected from an international pool of nearly 700 entries by a panel of experts from the design engineering fields.

[Dimension](#) is awarding a \$2,500 scholarship to each first place winner in the categories of Middle/High School Engineering, College Engineering, and Art & Architecture. Second and third place winners will each receive a \$1,000 scholarship. This year's contest features two bonus award categories in which students competed for a \$250 cash prize. The first bonus category asked students to rework the design of an existing famous building or bridge. The second bonus category challenged students to create an intriguing puzzle or game.

Instructors of the three first-place student winners receive a laptop computer for use in the classroom. Since the contest began seven years ago, more than \$65,000 in scholarships has been awarded to students. Designs have been evaluated based on creativity, usefulness, part integrity and aesthetics. A list of winners follows. For full descriptions and supporting artwork of designs, visit [Extreme-redesign/2011-Winners](#).

## College Engineering Category Rank:

- 1 Prone Stander: Jeremy Prince, Tennessee Tech University, Cookeville, TN
- 2 Quadrarotor: Christopher Kennedy, Embry-Riddle  
Aeronautical University, Daytona Beach, FL:
- 3 Desk2go: David Di Giuseppe & Arash Nouraei, Ryerson University,  
Toronto, Ontario, Canada:

### First Place Design Description

Prince says he became inspired when a local elementary school purchased an assisted stander (called a commercial prone stander) to help build leg muscle for a young student with cerebral palsy (CP). Prince's redesign improves adjustability and functionality of the prone stander, allowing children of all different shapes and sizes with CP to be comfortable and accommodated.

### Art & Architecture Category

Rank:

- |                               |                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------|
| 1 Flip 'n Slip                | Dov Feinmesser & Aaron Hendershott, Ryerson University,<br>Toronto, Ontario, Canada: |
| 2 Generative Light<br>Fixture | Christopher Johnson, Boston Architectural College,<br>Boston, MA:                    |
| 3 Frozen Moment               | Chao Gao, Ontario College of Art and Design,<br>Scarborough,<br>Ontario, Canada      |

### First Place Design Description

Chairs for young children are typically designed much as they are for adults - for sitting. Given children's tendency to do anything but sit in a chair, potential for danger inspired the "Flip n' Slip." The multi-functional children's chair can be configured various ways: as a chair that can rock back and forth, as a lounger, or as a slide. The device can also become a table surface. Designed with safety in mind, the Flip n' Slip is molded as a single piece, supports no sharp edges and has grooves at contact points to reduce surface contact and slippage.

### Middle/High School Engineering Category

Rank:

- |                    |                                                                        |
|--------------------|------------------------------------------------------------------------|
| 1 Doorstop         | Elliott Wilm, Hinsdale Central High School, Hinsdale,<br>IL:           |
| 2 U-watch          | Arthur Dabrowski, John Paul II High School, London,<br>Ontario, Canada |
| 3 Universal Socket | Mason Stillman, Campbell County High School, Gillette,<br>WY           |

### First Place Design Description

Have you ever caught yourself carrying armloads of groceries from the car to the kitchen, frustrated by opening and closing the door or creating a makeshift doorstop? This annoyance inspired a creative solution: a hidden doorstop at the bottom of the door that acts

as a dead bolt, ensuring ease of use and control without an unappealing appearance. While using a piston and cam system, Wilm created a track for a rod to slide up and down when turning the knob, a design meant for a functional purpose.

Bonus Categories:

Building or Bridge Redesign Winner:

Eco-Friendly Bird's Nest Stadium Jeeven Farias, Morris Hills High School, Rockaway, NJ:

Puzzle or Game Winner:

Puzzle Sphere     Kyle Wilkinson, Terre Haute South High  
School, Terre Haute, IN

The top three finalists in each category were selected by a panel of independent judges from industry and the engineering media. This year's judges are Al Dean, Editor at Develop3D magazine, David Mantey, Editor at Product Design & Development magazine, Ian Kovacevich, VP of Engineering at Enventys, LLC and Patrick Gannon, Engineering Manager at rp+m (a Thogus partner company).

For full descriptions and supporting artwork of designs, visit [Extreme-redesign/2011-Winners](http://Extreme-redesign/2011-Winners).

Dimension, a brand of 3D printers by Stratasys, offers computer-aided-design (CAD) users a low-cost, networked alternative for building functional 3D models from the desktop. The 3D printer builds models layer-by-layer using ABS plastic, one of the most widely used thermoplastics in today's injection-molded products. Dimension 3D printers allow users to evaluate design concepts and test models for form, fit, and function. Online at: [www.dimensionprinting.com](http://www.dimensionprinting.com)

Stratasys, Inc., Minneapolis, is a maker of additive manufacturing machines for prototyping and producing plastic parts. The company markets under the brands Fortus 3D Production Systems and Dimension 3D Printers. The company also operates RedEye On Demand, a digital manufacturing service for prototypes and production parts. According to Wohlers Report 2010, Stratasys supplied more additive manufacturing systems in 2009 than any other manufacturer, making it the unit market leader for the eighth consecutive year.

Stratasys patented and owns the process known as Fused Deposition Modeling (FDM.<sup>(R)</sup>) The process creates functional prototypes and manufactured goods directly from any 3D CAD program, using high-performance industrial thermoplastics. The company holds more than 285 granted or pending additive manufacturing patents globally. Stratasys products are used in the aerospace, defense, automotive, medical, business & industrial equipment, education, architecture, and consumer-product industries. Online at: [www.stratasys.com](http://www.stratasys.com)

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