



A. JAMES CLARK
SCHOOL OF ENGINEERING



MakerBot®



stratasys

A. James Clark School of Engineering, University of Maryland



About the Clark School of Engineering

The University of Maryland's A. James Clark School of Engineering is ranked among the top engineering schools in the world. Located in College Park, MD, just a few miles from Washington, DC, the University of Maryland has about 27,000 undergraduates, more than 4,000 of those at the Clark School of Engineering. Its engineering program is complemented by a vibrant entrepreneurial ecosystem and early hands-on educational experiences.

MakerBot + Stratasys Success Stories

Challenges

The Clark School needs to prepare students for engineering careers in an entrepreneurial world. Many engineering students arrive at Maryland with strong math and science training, but relatively few high schools offer classes in applied skills such as drafting or shop. As a result, incoming students may have little or no practical experience with the tools and methods for turning their ideas into reality. And making 3D projects is “part of the creative design process of engineering,” says Darryll Pines, Dean of the Clark School.

Benefits

Access to the MakerBot Innovation Center and Stratasys 3D printers supports the University of Maryland’s longtime emphasis on innovation and entrepreneurship. The two 3D printing labs are situated next to the Startup Shell, the University of Maryland’s student-run coworking space and incubator, which has generated more than 50 companies in its first three years. Access to 3D printers for concept models and more refined prototypes will help more students bring their ideas to reality.

“With desktop 3D printing, you can develop creativity and the engineering at the same time.”

The Solution

Every first-year student takes Introduction to Engineering Design, a project-based course where students collaborate on an autonomous vehicle that meets rigorous technical specifications. In the fall of 2014, the Clark School introduced MakerBot Replicator® 3D Printers to each Introduction to Engineering Design section, and saw that even students with limited experience in design were able to use MakerBot Replicators to turn concepts into physical objects, test whether they behaved as expected, and iterate on and improve their designs. “With desktop 3D printing, you can develop creativity and the engineering at the same time,” says Dean Pines.

With 1,200 Maryland students learning to 3D print each year, the Clark School then invested in a MakerBot Innovation Center, with 50 MakerBot Replicator 3D Printers. The MakerBot Innovation Center sits next to the university’s Rapid Prototyping Lab, which contains Stratasys industrial 3D printers, including a Fortus 400mc and an Objet30. These more advanced 3D printers can produce more refined and versatile models made from more robust materials optimized for presentation or durability.

The 3D printing facilities are open to all Maryland students, not just engineers. “Part of the mantra of the University of Maryland is to have innovation and creativity come from anywhere,” says Pines.

About MakerBot

MakerBot, a subsidiary of Stratasys Ltd. (Nasdaq: SSYS), is a global leader in the desktop 3D printing industry. Founded in 2009 to make 3D printing accessible and affordable, MakerBot now has one of the largest install bases and market shares of the desktop 3D printing industry, with more than 80,000 MakerBot 3D printers in the world and a robust MakerBot 3D Ecosystem that combines hardware, software, apps like MakerBot PrintShop and MakerBot Mobile, materials, training, support, and Thingiverse, the world’s largest 3D printing community.