

3D printing design rendering in SCAD's DigiLab

## Designing the Future

### **Design Challenge**

It's no secret that trend-setting and innovation often begin in higher education and top-ranked Savannah College of Art and Design (SCAD), in Georgia, is no exception. The college supports more than 40 majors, ranging from Animation to Furniture Design, and prides itself on providing cutting-edge curriculum, along with the tools necessary to fulfill students' creative vision. These tools include 19 Stratasys 3D printers. "Our history with 3D printing is important to us. We believe very strongly in the benefits of the technology," said Victor Emoli, Dean, SCAD.



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The Stratasys Continuous BuildTM 3D Demonstrator is such a valuable tool for us. We now have the ability to print overnight and show up in the morning to find multiple finished pieces, not just one."

Justin Cox Savannah College of Art nd Design



# Designing the Future

But being ahead of the curve can be challenging. The ability to 3D print a design prototype changed everything for the design school when they were first introduced to 3D printing some years ago. "Whether it's the sequential arts (cartooning) or furniture design, being able to print a tangible example of an idea is very enabling," said Justin Cox, RP operations manager, SCAD DigiLab. "This was the beginning of



The high output capabilities of the Stratasys 3D Demonstrator enable thousands of students to bring their projects to life.

huge development and advancement in art and design all over campus. Students began actually using 3D printing to execute their dreams," said Emoli.

However, this advancement had some drawbacks as well. While the school saw a dramatic increase in the quality and complexity of the students' design work with access to 3D printers, they also saw an increase in demand for the 3D tools. Now, nearly every major at SCAD employs 3D printing to some extent. But with this comes a new challenge, how to provide sufficient, continuous 3D printing capability to the more than 12,000 SCAD students.

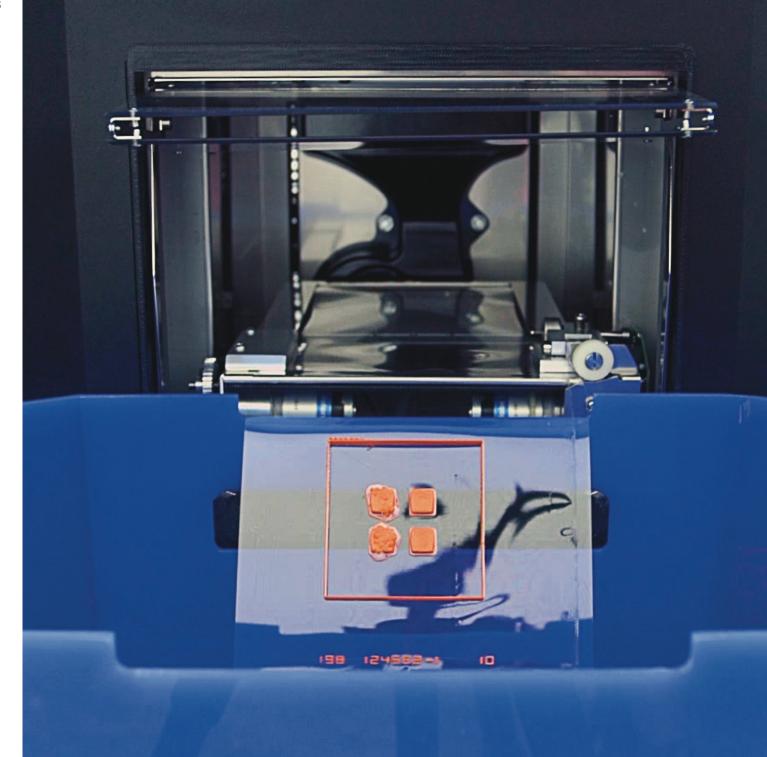
### **Continuous 3D Printing Innovation**

The solution for the school is the Stratasys Continuous BuildTM 3D Demonstrator, Cloud-Based Manufacturing System, a continuous, automated-workflow printer, capable of managing multiple workflow requests. This solution's ability to tackle nearly unlimited print jobs, in parallel, with no downtime, and no operator intervention is game changing for high-volume labs, like SCAD. The beauty of the Demonstrator, according to Cox, is the school's ability to load CAD files from virtually anywhere. "We now have the ability to print overnight and show up in the morning to find finished pieces. This allows us to provide unlimited opportunities for all our students, no matter where they are located," said Cox.

Prior to the Demonstrator, project iteration was not possible due to student backlog. "Now, with this new technology, I'm able to think about more forms or new connectors and I'm able to run multiple iterations at a time to test them. If I like them, I can go in and run 50 parts and I get them in the next day or two," said Jocelyn DeSisto, SCAD student.

Thanks to its capability for rapid, continuous output, The Stratasys Continuous BuildTM 3D Demonstrator has been curriculum-changing for the school. Previously, SCAD's already-large array of 3D printers struggled to keep pace with the multitude of student projects in the printing queue. "With this new technology," said Emoli, "we are looking to serve 600 to 1,200 students, maybe 50 to 100 times our current number." With the Demonstrator, "We have actually been able to institute new courses to further use 3D printing technology," said Emoli. "Without this automated, efficient solution, we would only be able to serve a small segment of our population."

Beyond the classroom, SCAD is very focused in its mission to prepare professional students for jobs in the real world. SCAD partners with leading industry designers, from Microsoft to BMW, in more than 36 industry design projects each year. The increased access the new Demonstrator provides makes it "a tool to actually help students land those jobs, not only to start their careers but to push their innovation to the next level, to go out into their fields and effect change," said Emoli.



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