



Otis College of Art & Design Creates Out- of-This-World Garments with Activision Blizzard using 3DFashion™ Technology

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Stratasys 3DFashion Technology unlocks an extraordinary realm of limitless creativity, offering an awe-inspiring opportunity for all who yearn to push the boundaries of imagination.

Jill Higashi Zeleznik

Chair of the Otis Fashion Department



Customer Profile

Established in 1918 as Los Angeles' first professional school of the arts, Otis College of Art & Design, a national leader in art and design education, continues to educate a diverse community of students to become highly skilled, well-informed, and responsible professionals—empowering them to shape the world. Its fashion department has mentored design students to produce and create unique design projects that provide a glimpse into the future of fashion design.

This year, the Fashion Design departments pushed the boundaries of innovation with a collaboration with Activision Blizzard's Call of Duty: Infinite Warfare. In partnership with Activision Blizzard, students were assigned to create an editorial collection inspired by a military robot from the Call of Duty: Infinite Warfare video game. Students were asked to select the robot that most inspired them and develop a garment that was runway worthy and pushed the boundaries with the silhouette and materials. Inspired by the video game's dynamic and sci-fi aesthetics, depicting the time period with elevated finishes and treatments was mission-

critical to being awarded a winning design. Upon completion, the fashion students showcased their garments at a runway fashion show.

Educational Institutions Embrace Innovation

This fashion show was a testament to the avant-garde approach to fashion design that Otis College of Art & Design fosters in its students. Creating award-winning designs required students to be agents of change, designing complex and intricate garments that sometimes included optical illusions; therefore, they needed to test the impossible of how their creations came to life. In this instance, traditional design methods, such as fabric blocking and laser cutting, would lack the desired complex designs and would have resulted in longer production times. Tasked with producing otherworldly designs, students needed a tool that would allow them to obtain the desired future effects while also being efficient with materials and time.



Kiki Zuo and her model posing with the 3D printed design on the runway at the Otis Fashion Show



Jill Higashi Zeleznik, Chair of Fashion and Wirt Qi Li, Designer of the year on the runway at the Otis Fashion Show with the 3D printed design.

Enter 3DFashion Technology

When approached by Stratasys with the J850 TechStyle 3D printer powered with 3DFashion technology, the Chair of the Otis Fashion Department, Jill Higashi Zeleznik, saw this new technology as a creative tool to help students achieve their design intricacies, especially for this project. Utilizing the Stratasys direct-to-textile 3D printing technology, students could turn all aspects of the garment designs they created on Photoshop and Illustrator into physical garments. The technology enabled these designers to produce one-of-a-kind designs that would be nearly impossible to create with traditional techniques in the amount of time needed to produce the garments. 3DFashion Technology was the right choice to allow full-color, clear, multi-material printing directly onto the fabric, delivering exceptional results that showcased fantastic optical illusionary effects and spectacular designs that simply cannot be achieved any other way. Stratasys 3DFashion technology has revolutionized the fashion landscape, especially for this assignment, where 3D printing directly onto fabric delivered a stunning fusion of traditional and futuristic aesthetics that fit into the Call of Duty time period. For this project, students could choose from over 600,000 unique colors with multiple shore values, simulating different textures and finishes to create the right look and feel for these garments.

According to the Chair, while there was a steep learning curve, given the process stage that 3D printing entered, 3DFashion technology was easy

to integrate into the program's curriculum, offering students new cutting-edge options to bring dimension to their designs, precisely what the winner of the 2023 Fashion Show, Kiki Zuo, did to create her award-winning garment. Her garment seamlessly merges the precision of 3D printing technology with the intricacies of hand knitting. The infusion of 3D printing and hand knitting allowed Kiki to introduce unprecedented flexibility and customization to generate intricate patterns utilizing cutting-edge technology for creativity and individuality.

"We can use 3D printing to print on fabrics which never happened before 3D printing," Otis Senior Kiki Zuo said. "It's a new technology that can bring you to the next level."

Without 3D printing, the process would have been different. It would not have allowed Kiki, or her classmate Wirt Qi Li, who designed a mesmerizing brick-red robotic coat that embodies the integration of technology and artistry, to achieve the looks of their garments in the time allotted. Had it not been for the Stratasys J850 TechStyle 3D printer and the collaboration between the Stratasys and Otis teams, the design process would have taken four additional weeks.

What's Next?

As 3DFashion technology steadily gains recognition in educational institutions today, the Otis College Art & Design Fashion Show accurately represents the fashion industry's future and the potential 3D printing technology brings to the fashion world. A collaboration between education, design, and technology, this project inspired these young designers to maximize their creative potential and, at the same time, showcase how far we can go in merging all these disciplines. The future of fashion is here, and it is 3D printed.

"Stratasys 3DFashion Technology unlocks an extraordinary realm of limitless creativity, offering an awe-inspiring opportunity for all who yearn to push the boundaries of imagination. Break free from conventional constraints and explore the uncharted territories of fashion design, where your imagination knows no bounds to forge a path that is uniquely yours." said Jill Higashi Zeleznik, Chair of the Otis Fashion Department. "I can see this technology as part of our curriculum moving forward."

"Our partnership with Otis provided a unique opportunity to translate futuristic designs into runway-ready looks with outstanding results. With technology now enabling us to bridge the gap between real life and digital worlds this partnership highlighted the skills and creativity students can bring to our industry, something we are excited to explore with another project later this year." Tim McGrath, Senior Art Director at Activision.

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We can use 3D printing to print on fabrics which never happened before 3DFashion. It's a new technology that can bring you to the next level.

Kiki Zuo

Otis Senior



The winning design of the 2023 Otis Fashion Show designed by Kiki Zuo and 3D printed direct-to-textile with 3DFashion technology

**USA - Headquarters**

7665 Commerce Way
Eden Prairie, MN 55344, USA
+1 952 937 3000

ISRAEL - Headquarters

1 Holtzman St., Science Park
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000

stratasy.com

ISO 9001:2015 Certified

EMEA

Airport Boulevard B 120
77836 Rheinmünster, Germany
+49 7229 7772 0

South Asia

1F A3, Ninghui Plaza
No.718 Lingshi Road
Shanghai, China
Tel: +86 21 3319 6000

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