NASA Announces Winning Spacesuit Designed by Philadelphia University Fashion Design and Engineering Students

PHILADELPHIA, May 1, 2014—NASA has announced that the winning Philadelphia University student design for its new Z-2 series spacesuit is “Technology,” which garnered almost 150,000 votes from the public.

The “Technology” suit, designed by PhilaU fashion design students Gabriela Canosa and Cassandra Burr and mechanical engineering student Julie Mayer, features a gray uniform with turquoise Luminex wire and light-emitting patches to increase suit visibility so NASA can better monitor astronauts outside the spacecraft.

Technology is one of three spacesuits— “Biomimicry” and “Trends in Society” are the other two—designed by the PhilaU students as part of a project last summer and fall with NASA and spacesuit manufacturer ILC Dover.

NASA then asked the public to vote by April 15 for their favorite of the three designs and plans to make a prototype of winning spacesuit by November. In all, more than 233,000 people voted for one of the three PhilaU student spacesuit designs.

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“I’m excited by the outcome,” said Canosa, who cast votes for all three designs. “You could see within the first few hours of voting that the public really liked that one. In talking to my family and friends, it seemed like the bright blue color and technology aspect were a big part of the appeal.”

The collaborative project got underway last summer, when NASA and ILC Dover turned to PhilaU to come up with creative outer layer designs while taking into consideration all the technical and mobility requirements of NASA’s new generation Z-2 series spacesuit. The PhilaU team was led by engineering professor Muthu Govindaraj and fashion design associate professor Celia Frank.

The design runners-up, “Biomimicry” and “Trends in Society,” were based, respectively, on the bioluminescence of aquatic creatures and a reflection of what everyday clothes may look like in the future.

“I’m so honored to have been able to work on this project,” said Canosa, who traveled to Johnson Space Center in Houston last fall to present the PhilaU designs to NASA. “It was a once-in-a-lifetime opportunity.”

PhilaU students (left to right) Cassandra Burr, Julia Mayer and Gabriela Canosa created Z-2 spacesuit designs for NASA.

NASA’s Z-2 suit is the newest prototype in its next generation spacesuit platform, the Z-series, the U.S. space agency says. It has a number of new technological advances, including the most advanced use of impact resistant composite structures on a suit upper and lower torso system, and first surface-specific planetary mobility suit to be tested in full vacuum.

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The NASA spacesuit project with PhilaU students has received widespread international media coverage; read more here, here and here.

Philadelphia University, founded in 1884, is a private university with 3,600 students enrolled in more than 60 undergraduate and graduate programs. As the model for professional university education, the University prepares students to be leaders in their professions in an active, collaborative and real-world learning environment infused with the liberal arts. Philadelphia University includes the innovative Kanbar College of Design, Engineering and Commerce; the College of Architecture and the Built Environment; and the College of Science, Health and the Liberal Arts. For more information, go to www.PhilaU.edu.