Socially Conscious Hardware Designs Showcased at ISHOW USA

June 29, 2018

Eight teams of entrepreneurs presented their hardware-led, socially beneficial inventions in Washington, D.C., earlier this month at the third ASME Innovation Showcase (ISHOW) of the year, ISHOW USA. Three teams — two based in the United States and one hailing from Peru — were named the grand prize winners of the event, which took place on June 21 at the District Architecture Center.

The three winning teams will share $500,000 in cash and in-kind prizes with the winners of the two previous ISHOWs, which were held in Bangalore, India, in April and Nairobi, Kenya, in May.

One of the winning teams at ISHOW USA, from the Massachusetts-based company Leuko, is the creator of PointCheck, a non-invasive, portable device that allows for the early detection of low neutrophil levels in cancer patients receiving chemotherapy. Since chemotherapy can lower neutrophil levels, which inhibits the body’s ability to fight infections, early detection of low neutrophil levels could help thousands of patients being treated with chemotherapy avoid infections. Other systems that detect low neutrophil levels require blood draws and laboratory analyses.

For Carlos Castro-Gonzalez, who represented his company Leuko at the competition, being selected as one of the grand prize winners meant “recognition and validation.” He said: “The judges were really experts in their fields. They are people that know how to take hardware products to market, and they have done that several times. And the fact that they recognize that we are on a good track to do so means a lot to us.” Castro-Gonzalez went on to say that the team’s cash prize would be used to hire a consultant to help the company develop a strategy for working with the FDA, which is an important next step for his team.

Félix Escalanta Delgado and Adriana Lombardi Franco, two representatives from the Lima, Peru-based company Compadre, were also named grand prize winners for their product, the Solar Hybrid Coffee Roaster. Their technology enables small, rural farmers in Peru, who do not have access to electricity and normally sell their coffee beans raw, to roast their own beans using sunlight. Because raw beans are much cheaper than roasted beans, the ability to roast their beans allows these rural farmers to increase their revenue streams and profits. In addition to its economic benefits for farmers, the solar roasting process also promotes organic practices and reduces carbon dioxide output.

While conceding that winning the prize money was a boon for her company, Lombardi Franco was also grateful for the opportunity to meet and interact with the ISHOW judges and technical advisors. “Other competitions we have participated in were more formal — it was just the pitch and then the judges decided on winners,” she said. “Here, we were really...
Luis Silva-Velasco, who represented AIM Tech at the competition, noted that his team planned to use their share of the prize money to fund more pilot studies and clinical trials and work toward FDA clearance. Silva-Velasco added that receiving input from the judges was a particularly rewarding aspect of the competition. “I think the judges identified quite a few things we can improve on,” he said. “I think we need to change our implementation strategy, to work more on customer needs.” The team also needs to build and launch a robust supply chain in order to build the product, Silva-Velasco said.

ASME President Said Jahanmir commended the three winning teams for their vision and the positive effect their products could have throughout the world. “The extraordinary inventions put forward by PointCheck, NeoVent, and Solar Hybrid Coffee Roaster will make it possible for doctors to do more to help their patients and farmers to become more productive, making it possible for families and communities across the world to achieve greater quality of life,” he said. “Their display of creativity and ingenuity, and that of their peers, fully embodies the spirit of ISHOW and exemplifies the potential of tomorrow’s engineering problem-solvers and social entrepreneurs.”

For more information on the ISHOW program and the winners and finalists for the three events in 2018, visit www.thisishardware.org.