Manufacture New York Developing Wearable Tech Research & Development Center

NEW YORK — Manufacture New York is in the midst of developing its Wearable Tech Research & Development Center, a cross-disciplinary facility that will start to welcome specialists in August as part of its rolling opening.

With contracts in place for Intel, Invista, Kelby & Co., Thesis Couture and others, the wearable-tech area will bring together computer scientists, biologists, industrial designers, researchers, chemical engineers, mechanical engineers and fashion-tech people.

“It’s really just combining wearable tech, sustainability and traditional fashion — that’s really going to be the sweet spot,” Manufacture New York founder Bob Bland said. “That’s really what it’s about, bringing all these minds together on site.”

With more than 160,000 square feet covering two floors, (comparable to the length of more than two city blocks), Manufacture New York has plenty of room to house the wearable-tech-oriented area, which will comprise 10,000 square feet once it is completed next year.

Manufacture New York’s chief technologist Amanda Parkes, a fashion technologist and biomedia/wearable-tech designer, is heading up the effort. A visiting scientist at the MIT Media Lab and an adjunct professor in Columbia University’s department of architecture, Parkes said the importance of crossover skill sets will be a key part of the training in the wearable-tech area. What will differentiate the wearable-tech facility is that researchers will have access to the adjacent facility of manufacturers to potentially scale up production based on need – a feature that is nonexistent in labs or anywhere else at this point, she said.

“One of the problems they have in China is that all of the textiles are made in one city and all of the technology is made in another. And the factories don’t talk to each other,” Parkes said.

The new setup will allow for advanced design fabrication development such as 3-D knitting, 3-D printing and laser cutters. There will also be a wearable electronic lab, a biochemistry and electronics lab and a new processes development lab. “The point being that the future of wearables is beyond gadgets. Wearables will be fully integrated into the body with fibers and textiles for wider uses beyond technology,” said Parkes, who started Bodega Algae, a company developing a patented algae photo-bioreactor for producing biofuel, and the development of exhibits and educational media at the Exploratorium in San Francisco, the Science Museum in London and the Peggy Guggenheim Collection in Venice.

Beyond the research and development equipment, brainstorming will be a key component of the equation.

“It’s about bringing all these different minds into the space and that’s really where we’re strongest. The researchers that we’re looking to connect with are really from all over the world,” Bland said.

Officially named the Manufacturing Innovation Hub for Apparel, Textiles & Wearable Tech, the Brooklyn-based fashion epicenter was made possible via the New York City Economic Development Corp., which pledged $3.5 million through its Industrial Modernization Initiative for the development of the space in December. Designed to drum up local manufacturing, create jobs and support up-and-coming designers, the facility is housed in the privately run Liberty View Industrial Plaza in Sunset Park, Brooklyn. As a whole, Manufacture New York has about 30 people working on site, which is still being developed to eventually accommodate 1,200.

Additional public funding is in the works and Manufacture New York is tightening its ties to various academic institutions including FIT, MIT and others., Bland said. To that end, Manufacture New York has partnered with MIT, Cornell and Drexel on a proposal for the Revolutionary Fibers and Textiles Manufacturing Innovation Institute, a Department of Defense-led initiative, to make it the New York City base for a 21st-century national fibers and textiles manufacturing network.

Manufacture New York sees itself as a fashion ecosystem with four key areas:

* Wearable Tech Research and Development Center: exploring wearable technology, alternative fabrics and advanced manufacturing processes, and giving more than 15 fashion-tech companies access to the latest technology (laser cutters, 3-D printers, CNC looms, soft circuit and wearable electronics labs, biology and wet lab);

* Workforce Training Center: In partnership with the Small Business Association, NYC Small Business Services, Southwest Brooklyn Industrial Development Corp. and local schools, it will offer manufacturing and product development workforce training, job placement and skill upgrades geared to build on New York City Economic Development Corp.’s preexisting programs like the Fashion Manufacturing Initiative;

* Fashion Media Center: A complex of photo and video studios for use by independent fashion designers, media development and distribution companies to create fashion-focused entertainment projects to promote and sell Made in the USA fashion and other luxury goods and services around the world;

* Design and Wearable Tech Accelerator: A pipeline of strong, early-stage design and wearable-tech talent with a two-step design and fashion-tech incubator and accelerator model.