Remaking Philadelphia at NextFab

By Elise Vider on December 12, 2018

From out of the rubble, something new emerges: Despite the decades-long decline of assembly-line, smokestack-style manufacturing in Philadelphia, there is new growth in small-scale makers and artisans. A key ingredient in that shift is the city's incubators and makerspaces.

Leader of the pack is the rapidly expanding NextFab, which founder Evan Malone describes as “a for-profit social enterprise with the goal of helping people understand how things are made, how to turn their ideas into great products, and how to launch businesses that can provide great jobs for them and others, and make things here in their own community.”

Inspired by a visit to a South Africa facility — and boasting a freshly minted Ph.D. in 3-D printing — Malone launched NextFab in 2009 at the University City Science Center. The goal was to establish a clubhouse that provided tools and other technical resources to members.
“We started out focused more on high-tech manufacturing, but learned that most of our members have a greater need for basic tools, space to work in, and advice from knowledgeable people,” recalls Malone. “So we’ve expanded more of the basic tools and technologies, and have found targeted areas where the high-tech really provides value.”

Today, NextFab has two Philadelphia locations, a third in Wilmington, Delaware, and an expanded roster of services and programs aimed at artists, makers and entrepreneurs. The organization in currently outfitting a major new facility in Philly’s Kensington neighborhood, partnering with the Resource Exchange, a local organization that salvages materials for re-use by artists and makers.

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In its current incarnation, NextFab attracts a diverse membership from DIY hobbyists, to professional artists, to startups that get business development support from NextFab Venture Services.

Bill Evanco needed a place for his messy home projects. He uses NextFab’s wood-and-metal shop and 3D printers, and gains inspiration “watching other members build their more ambitious projects.”
Local artist Deanna McLaughlin is currently at work on a line of furniture made from abandoned shopping carts. She has been a NextFab member for several years, and joined “to explore new methods of art making,” she explains. “[I] quickly realized that with my open mind for learning new things I have new unlimited potential to take my ideas to a place I had never imagined before.”

Using the tools on-hand at NextFab

She’s used NextFab’s welding equipment, woodworking setup, vacuum former, 3-D and large-scale printers, laser cutters, soldering station, mold-making materials and jewelry-lab equipment, availed herself of consultation services in business development and patents, and attended lectures on both members’ inventions and using technology to make a positive impact on the world.

“I always learn new things each time I am there,” she says.

“Seeing entrepreneurs, artisans and artists use the tools and expertise available at NextFab to develop innovative new products and works of art — and build businesses around them — is incredibly inspiring and fulfilling,” says Malone. “It is also incredibly difficult and expensive to build a successful business.”

That’s because these hardware companies need access to manufacturing tools and equipment that cost thousands of dollars, plus skilled employees to operate this equipment. To make things even tougher, investors prefer software businesses because of their potential to scale faster.

To help hardware technology entrepreneurs navigate these challenges, NextFab offers a number of services, including its 12-week RAPID Hardware Accelerator launched in 2016. The program invests up to $25,000 in startups based on just a great idea or a bare-bones prototype.
“[We] provide product development services that help entrepreneurs refine their prototypes and prepare them for manufacturing,” says Malone. “In addition to this, we connect these startups to experienced mentors and regional resources that include domain experts, investors and contract manufacturers.”

Four hardware startups will graduate this month from the Fall 2018 RAPID program. They include Sublight Dynamics, a company developing an intuitive six-degree-of-freedom joystick for gaming, VR, CAD, drones, and robotics; APO Technologies, a startup working on a prosthetic alignment platform for improving patient care and practitioner efficiency; Sage Smart Garden, a company building a smart gardening system that allows users to automatically provide the correct amount of water to plants using an integrated mobile app; and Hava Health, a digital drug therapy company building connected solutions to help people quit addictive substances, starting with nicotine.

The teams hail from Pennsylvania, New York and Delaware, and work out of NextFab facilities.

According to Todor Raykov, NextFab’s Venture Services manager, one of their goals “is to not only help them build great products, but also help them stay and grow in our region because of all the things our burgeoning startup scene offers.”
Meanwhile, NextFab is anticipating its 2019 move from North 4th Street to American Street in Kensington. They will share a 60,000-square-foot building — featuring multiple loading docks, parking, and gallery, workshop and event space — with the Resource Exchange, allowing both organizations to significantly scale up.

At American Street, NextFab will offer expanded jewelry and textiles departments, rentable artist studios, expanded storage and the capacity for large-scale projects. The Resource Exchange will increase the amount and variety of material they save and sell. NextFab also plans to introduce RAPID for Artisans, which will include capital offerings and business development consulting for the specific needs of entrepreneur artisans and small-batch businesses. NextFab is also exploring ways to support the fashion and sewn-goods industries, an exciting way to connect to Philadelphia’s manufacturing legacy.

"We will continue to build content that provides opportunities to learn, create and connect," says Malone, "in order to support a resilient community of creatives in Philadelphia."

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