York TechGirlz Workshop Introduces Girls to Tech Opportunities
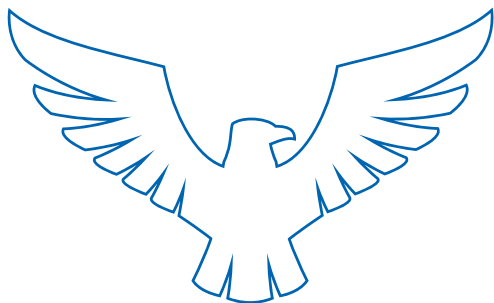

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They cropped and filtered photos, manipulated gears and raced cars with lights. A rainy April Saturday outside couldn't dampen the enthusiasm inside Martin Library in York for more than a dozen girls who participated in a TechGirlz Workshop on Saturday, April 9.

Presented in part by [United Fiber & Data (UFD)](), the Pennsylvania Gigabit Revolution (GIG REV), York College, and Martin Library, this workshop was all about opening minds to career possibilities for women in technology fields. Lisa Howald, youth services librarian at Martin Library, coordinated with York College and UFD to bring these workshops to York.

Sessions covered GIMP image editing software, Arduino (a type of electronic prototyping platform that

allows users to build their own interactive electronic objects), and littleBits (a platform with easy-to-use electronic components with pieces that snap together with magnets, enabling users to create objects like toy cars).

York College instructors Dr. Jessica Fautch, assistant professor of organic and inorganic chemistry, and Dr. Inci Ruzybayev, assistant professor of engineering and computer science, gave hands-on chemistry and engineering demonstrations, furthering the link between education and career possibilities through STEM (science, technology, engineering, and mathematics).

Madeline Krout, 13, a York Agora Cyber Charter School student, says building the littleBits car that moved in response to light was her favorite activity. "When you're learning at this age, you're open to retaining more information. I want to learn about programming itself."
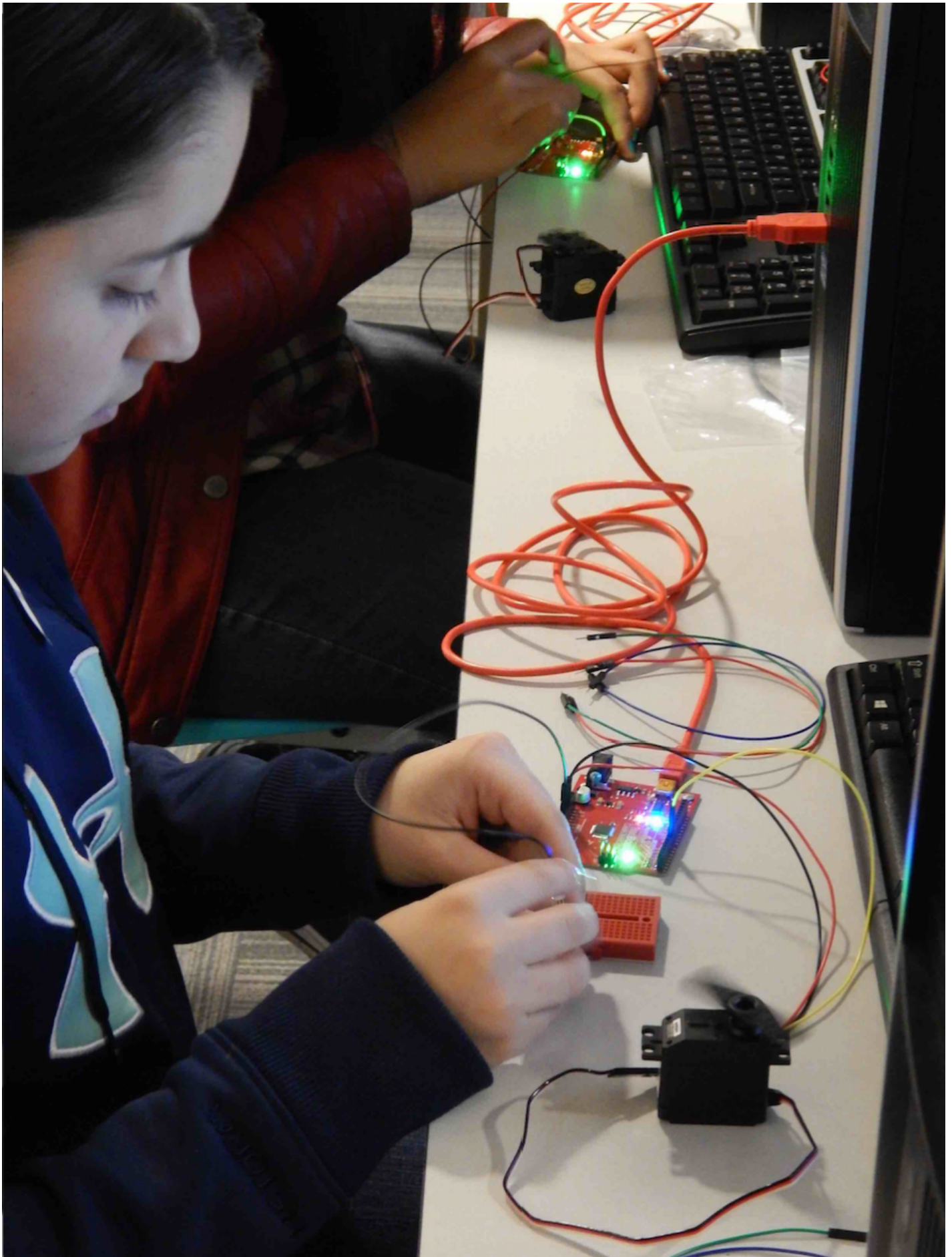
Her mother Mary adds that since her daughter excels in science and math, she felt the TechGirlz experience was a natural fit for Madeline's interests. "Programs like this are priceless, especially for young girls. They can begin to understand what technology holds for them in the future."

Reactions From the Student Instructors
Giving up their Saturday morning slumber for some hands-on teaching, seven York College [engineering and computer science students]() became the teachers for the TechGirlz workshops. When Dr. Jason Forsyth, assistant professor of electrical and computer engineering at York College, first learned about the TechGirlz Workshop planned in York, he championed the event by recruiting students from within the college's engineering department to lead the workshops, and he also served as instructor for the Arduino workshop.

Ashlenn Hayes, a sophomore majoring in electrical and electronics engineering, served as one of the student instructors.

"I'm impressed by how really smart these girls are. They caught on to what we were doing really quick," she says of the littleBits car-building activity she hosted.

"At their ages, I never had tech experiences like this," says Cara Sperbeck, a junior majoring in

computer engineering, adding that the littleBits workshop gave her an opportunity to explore teaching skills to younger students.

Amanda Redhouse, a sophomore majoring in electrical engineering, adds that the impact of volunteering to host the Arduino programming portion meant a great deal to her.

"I wanted to be a positive role model for young girls. I feel like these workshops help them figure out what they can do" in tech careers, she says.

Sophomore Alec Tokosch, an electrical and electronics engineering major, adds that the TechGirlz Arduino workshop gave him a chance to take a break from his schoolwork and help out in the York community. "Not all girls can be exposed to opportunities like this," he says, pointing to the girls participating in the day's activities.

Rick Bosse, a sophomore majoring in electrical engineering, says his goal of starting a new fraternity at York College led him to want to become involved in community activities.

When he learned that Dr. Forsyth put out the call for students to assist with TechGirlz, he signed up to help with the Arduino workshop. The empowering part of TechGirlz, he says, is "opening girls to the idea that men aren't the only ones working in engineering and technology careers."

Sophomore Micaiah Douglas, a computer engineering major who assisted with the GIMP image editing

software workshop, says that his self-taught tech interests inspired him to pursue his engineering studies.

He adds that TechGirlz is valuable for young girls. "Since engineering has traditionally been a male-dominated field, this breaks down the barriers. It helps them see you're not restricted to a certain career based on gender only."
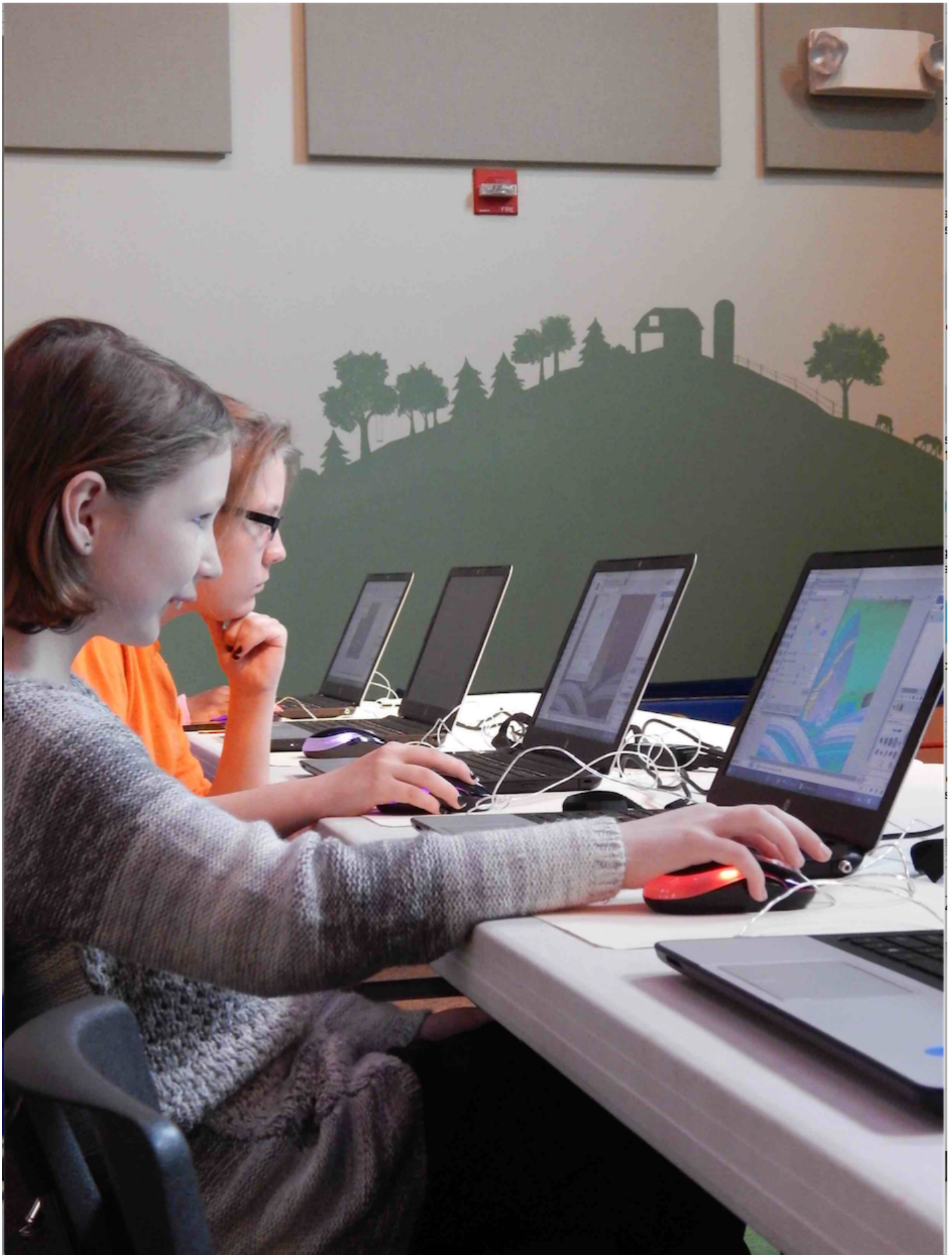
Anthony Bowlin, a sophomore majoring in electrical engineering, also assisted with the GIMP image editing software workshop and found the TechGirlz Workshop to be a valuable initiative. "It's good to expose them at a young age to what you can do with technology in a career."

The TechGirlz Mission
With its goal of reducing the gender gap in technology occupations and giving girls access to hands-on experiences with technology, TechGirlz aims to empower a new generation of women leaders in the tech field.

TechGirlz founder and CEO Tracey Welson-Rossman, who was recently honored with an Apttus Super Salesforce Women in Tech of 2016 award, says that while technology is a pervasive, prevalent part of our lives, women make up only a small part of the tech career workforce compared to men.

Now in its fifth year of operation, TechGirlz projects it will work with double the amount of girls in the 2015-2016 academic year than it has in its first four years of operation through its Tech Shops in a Box programs, Welson-Rossman noted earlier this year in a Women to Watch podcast. She reports that about 86 percent of girls who made up TechGirlz workshop participants say they are more likely to explore careers in tech fields as a result of a TechGirlz workshop experience, based on the results of a rece

nt feedback survey.

Welson-Rossman cites an example of a sophomore student at the Wooster Institute of Technology who took part in a TechGirlz program several years ago. According to Welson-Rossman, the support from TechGirlz kept this student from falling off track in pursuing her technology studies.

"We're getting to a point now where we're allowing some of the older girls we've worked with to become teachers, and that's important. It increases their confidence, and they're role modeling for younger girls," she adds.

"We're grateful for the partnerships among TechGirlz, Martin Library, and York College that made these workshops possible," says Bernadette Reineberg, Director of Community Outreach & Special Projects for UFD. "The girls who attended, and the York College students themselves, were asking us when we could do these workshops again. We hope that this experience raises interest among girls in our region to explore careers in technology. Our state needs young women like them to promote technology careers in Pennsylvania."