CARNEGIE SCIENCE CENTER’S MOBILE FAB LAB FOCUSES ON INCLUSION

NEW PROGRAM CREATES MAKERSPACES FOR THE VISUALLY IMPAIRED

PITTSBURGH, August 22, 2017 — Carnegie Science Center’s Mobile Fab Lab recently debuted digital fabrication workshops and experiments specifically for students who are visually impaired. The new design methodology is named Tactile Assisted Design or TAD.

“To our knowledge, there are no other digital fabrication learning opportunities like this available,” says Jonathan Doctorick, Education Coordinator for the Mobile Fab Lab.

The Mobile Fab Lab is a 20-foot trailer that the Fab Lab team takes to schools across the country, carrying digital fabrication equipment such as 3D printers, laser engravers, vinyl cutters, and programmable robotic toys. Traditionally, Fab Lab activities require computer aided design software, which may not be useable for students who are unable to read a computer screen.

After a visit in 2016 to Erie’s Office of Vocational Rehabilitation (OVR), the Fab Lab team became aware of that fact that the workshop was not designed to allow every student the access they need to this learning opportunity. Doctorick and Fab Lab Technical Education Manager Liz Whitewolf met with OVR’s Bureau of Blindness and Visual Services and then got busy constructing educational programming aimed at engaging this group of students.

“Educators are very interested in using maker technologies in classrooms, but the current programs did not meet the needs of students with visual impairments,” says Doctorick. “We were determined to change that.”

Doctorick and the Fab Lab team created programming that enables blind and visually impaired children to use it, and then debuted in Erie’s school system.
The TAD kit comes loaded with various tactile art supplies such as pipe cleaners, clay, and duct tape. Students in the pilot program were given the creative freedom to craft their own airplanes from the supplies provided, and it was a great success.

“The kids realize there are different ways to create and accomplish a task. They love it,” said Dawn Sokol, District Administrator the Office of Vocational Rehabilitation’s Bureau of Blindness and Visual Services in Erie.

Carnegie Science Center continues to improve and adapt its TAD programming. The system was recently presented at a conference in Santiago, Chile in hopes of sharing progress and inspiring future makers.

For more details about the Mobile Fab Lab, visit CarnegieScienceCenter.org or call 412.237.3400.

About Carnegie Science Center
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Established in 1895 by Andrew Carnegie, Carnegie Museums of Pittsburgh is a collection of four distinctive museums: Carnegie Museum of Art, Carnegie Museum of Natural History, Carnegie Science Center, and The Andy Warhol Museum. In 2016, the museums reached more than 1.4 million people through exhibitions, educational programs, outreach activities, and special events.

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