

Alfred University students create prototype that will automate operations at Steuben Arc

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Students (from left) Carl Liboro, Enderson Naar and Rashid Abuelmaali with the palletizer prototype.

ALFRED, NY A project by a group of Alfred University engineering students will help automate operations at the Arc of Steuben, an agency that supports people with disabilities through a number of residential, habilitation and vocational programs.

The Alfred students are participating in the New York State Industries for the Disabled (NYSID) Fourth Annual CREATE (Cultivating Resources for Employment with Assisted Technology) Symposium. The symposium, scheduled for Wednesday, April 25 at the Legislative Office Building in Albany, will showcase prototypes of inventions which focus on improving the workplace for New Yorkers with disabilities.

Alfred University is one of eight colleges and universities participating in the symposium. The group of students from Alfred developed a “palletizer” for use at the Arc of Steuben in Bath, NY. The device automatically wraps plastic around pallets holding boxes. Normally, the job of wrapping the pallets is done by hand; the automation will help eliminate worker congestion in the area where that task is done.

Xingwu Wang, professor of electrical engineering and renewable energy engineering at Alfred University, will be accompanying three students to Albany, where they will present their prototype at the symposium. They are: Carl Liboro, a first-year graduate student in electrical engineering from New York City; Adam Gutierrez, a senior renewable energy engineering major from Cortland, NY; and Rashid Abuelmaali, a junior mechanical engineering major from Latham, NY.

Several other undergraduate engineering students -- in ceramic engineering, materials science engineering and mechanical engineering participated, with Liboro serving as a mentor. Students visited Arc of Steuben to get feedback on what project would best suit the needs of the agency, then worked to design a device the palletizer that would meet

those needs.

Wang said the group of students from Alfred University used a \$1,000 grant from NYSID CREATE to develop and build the prototype. After the symposium, the goal is for Arc of Steuben to make use of the palletizer in its packaging and assembly operations in Bath.

“Ideally, we’ll deliver the prototype to (Arc of Steuben) and they will work on its continued development,” Wang said, explaining that a full-size version of the prototype would need to be constructed for use at the facility.