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Newton High School FIRST Robotics Gets a Permanent Home at Sussex County Fair

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BRANCHVILLE, NJ – The Newton High School FIRST robotics team Aperture now has a permanent home at the New Jersey State Fair. The students, coaches, mentors, supporters and sponsors were at the fair in Branchville on Saturday morning to show off their robots and the new shed they now call their own.

The team maintains a presence each year at the fair to "because we want to spread the message of FIRST, to introduce the rural communities of Sussex County," according to Newton High School FIRST robotics team's Business and Public Relations Leader Liam Oakes.

FIRST Robotics is program that requires a full team of students with many different skills, not just building the robot. Some team members are dedicated to programing and building, while others find donors, create publicity, develop and monitor a safety plan, maintain a journal, mentor younger students and more.

“Look around. You see happy, energized teenagers,” said sponsor Mira Plastics’ Tina Miragliotta. “They are all different. They all support each other. That’s amazing.”

“Even business and public relations will be touched by STEM,” said Oakes. “We try to encourage people to see that we’re teaching them how to run in the 21 Century workforce.”

“This program is the future of STEM; jobs and manufacturing benefit, our economy benefits, our country benefits,” said Miragliotta.

ThorLabs and Mira Plastics donated funds for the team’s shed. Tina and Anthony Miragliotta were at the fair on Saturday for the ribbon cutting ceremony.

“In April coach Jim Hofmann stopped by to talk about the project. Early in the discussion we came to the conclusion that we wanted to help,” said Tina Miragliotta. “As soon as we heard about the conditions of safety concerns we were eager to help with the new shed.”

In the past the team was in a tent. Their equipment, requiring a lot of electricity, was often exposed to unfavorable weather conditions. “We love the new facility because it gives them a safe place to get out of the weather and a bigger platform to showcase what they do,” said Tina Miragliotta.

“Just meeting him [Hofmann] you could read the excitement. It is a breath of fresh air,

in contrast to the things we hear in the news every day," said Tina Miragliotta.

Another supporter of the Newton FIRST program, Picatinny Arsenal had people at the event on Saturday as well. Ed Petersen, Program Manager of STEM Education and Maria C Gonzales the website designer and training coordinator were both at the fair for the ribbon cutting ceremony to support the students.

"Newton was our first team. The relationship has grown over the years," said Petersen explaining that Picatinny Arsenal now sponsors 50 teams, 35 at the highest level. "They keep getting better. Jim Hofmann is a great mentor."

Petersen said Hofmann even serves as an instructor at Picatinny Arsenal at their STEM camp. The arsenal's support of STEM education has not gone unnoticed. In June Picatinny's Armament Research, Development and Engineering Center received bi-partisan congressional recognition as a "STEM Education Resource Center of Excellence."

Petersen, Gonzales and engineer Shahram Dabiri comprise the group that interacts with schools throughout the region to support STEM education offering training and grants. According to PIcatinny Arsenal's literature "nearly 200 Picatinny scientists and engineers have volunteered to support STEM education by making over 1000 classroom visits, staffing over 100 educational field trips to Picatinny Arsenal's really working laboratories, participating in the annual Introduce a Girl to Engineering Open House, assisting nearly 800 teachers and inspiring 50,000 students in over 400 schools."

"This is my dream job," said Petersen. "After 32 years in the New Jersey public school system and retired from New Jersey National Guard I was recruited to work at Picatinny Arsenal in the research lab. I did that for a couple of years and then this position opened up." Petersen appreciates convergence of his decades of experiences that

brought him to this position.

Gonzales said she is “proud to be with the group being able to represent both Latin and female minorities in the STEM field.” Petersen also points out that Gonzales is bi-lingual bringing an additional skill to the group.

Dabiri a bone-fide engineer “really relates to the students,” according to Petersen.

The team also looks to the future of their program.

“Newton High School FIRST team members mentor younger students,” said Caitlin Bailey Visual Arts Leader, web designer and Kids Come FIRST leader.

Their program runs from kindergarten through grade 12. Newton and Green have a Junior FIRST Lego league for students ages six through nine. Students nine to 14 participate in the FIRST Lego league. Newton High School now participates in the FIRST Robotics Competition, the highest level. It is also the costliest.

“Funding is always a big question, the biggest obstacle,” said Assistant Coach Darleen Nelson.

The status of Andover’s JrFLL and FLL programs are in question due to funding, according to Nelson.

Oakes said, “We are also trying to help other areas of the county and state and home schoolers get started.”

This is the first of a two part artilce about Newton High School FIRST Robotics at the fair.