

# Newton Robotics hosts STEM night open house

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Team Aperture's major awards are displayed Photos by Caitlin Bailey

The banquet of food, donated by families and local businesses



Josh Virtell (left) and Brian Hoskins (right) drive the robot and demonstrate its features, as Hunter Mitchell (far right) keeps a close eye out for any sudden distractions around the area



Nick Nannery demonstrates how gears are delivered to the robot



The welcome banner

By Liam Oakes

Newton — On February 23, Newton High School's robotics team, commonly known as Team Aperture, conducted their sixth annual STEM Partner Open House at Newton High School.

The event started with a demonstration of the robot assembled for this year's FIRST Robotics Competition, called "Steamworks." Brian Hoskins and Josh Virtell controlled the robot through a laptop, joystick, and video gaming controller on the D-Level Carpet of the high school for all to see. Parents, students, and sponsors watched in admiration

and astonishment as the high school students demonstrated their own custom-built functional machine.

The robot build group conceptualized the idea that the robot should deliver gears to the human player in the “airships” located in the middle of their field zone for this year’s challenge competition. To obtain additional points, the build group decided to also construct a mechanism for the robot to climb onto the rope of the airship and be able to keep itself off of the ground.

The students exhibited the robot’s climbing feature several times during the demonstration hour, with each one being successful in only one attempt. Children that attended the evening’s event were able to interact with the robot by providing gears through a slot.

Following the demonstration of the robot was the social and networking hour for parents, students, and sponsors in the school’s art classroom. Dinner and desserts were served, courtesy of the families and local food businesses that donated to the event. A slideshow presentation of the brief biographies of each team member, including their future plans and why they joined the team, looped throughout the session.

After guests settled down and filled their plates, a greeting from Halsted Middle School technology teacher and team coach, Jim Hofmann, was carried out before the presentation was turned over to Katie Nelson, Co-Captain, Administrative Manager, and Logistics Leader, who explained that the open house “is a great opportunity for students and our sponsors to network and collaborate with each other.”

“This event allows students to present the hard work that they have accomplished to not only their family members, but also our sponsors, which is crucial because this opportunity will eventually lead them to internships, giving our students a head start in the working world,” said Nelson, who is also in her senior year of high school.

Nelson then turned it over to John Bugay, junior and Build Leader, who explained the team’s robot for the 2017 challenge with the assistance of Cameron Osborn, Josh Virtell, Ben Austin, and Brandon Marenzana.

Nick Nannery, junior and the Safety Leader, explained the importance of safety and the impact that it makes for the team, ensuring that each student and mentor remains accident-free.

Liam Oakes, senior, Co-Captain, and the Fundraising and Public Relations Leader, expressed how robotics is conducted akin to a business, showcasing a nearly fifty-page business plan composed by him and the students, and a collection of Robo-News, the team’s bi-monthly newsletter.

The students also mentioned the status of the ongoing S-2398 legislation, which is co-sponsored by Senator Steve Oroho (R), and how students that do not participate in athletics will be finally recognized for the hard work and efforts to which they commit.

Derek Ravshanov, freshman, described the team’s strategy for fundraising, which is running a donation request letter campaign that involves over 600 local businesses. According to Ravshanov, nearly \$2,000 has been raised as a result of the campaign.

Caitlin Bailey, junior, Visual Arts and Kids Come FIRST Leader, explained her work with the Steampunk themes and custom-designed buttons that were assembled by students on the team. Bailey designs coloring book pages for children at competitions to keep

them occupied at the crowded events. She also maintains the team's website and keeps it updated.

Carter Boyd, senior and Marketing/Awards Leader, explained his role of composing essays for the team to obtain awards, including Chairman's, which is a prestigious award given to teams that have exhibited S.T.E.M. and FIRST Robotics prominently to their community. Chairman's also involves a presentation conducted by the students in an executive business style.

The evening concluded with a special recognition plaque given to Mira Plastics co-owners Anthony Miragliotta and his sister, Tina, who was unable to attend the event. The siblings were recognized for their generous contribution of extended team support and the S.T.E.M. Barn that was recently established at the Sussex County Fairgrounds this past summer.

The students on the team recognized their team coach, Jim Hofmann, and presented to him a jacket displaying the team logo and "Coach Hofmann," custom embroidered by DezineLine in Ledgewood.

More information can be found about the team on their Facebook, Instagram, and Twitter pages as well as their website, <URL destination="http://www.newtonroboticsteam.org ">www.newtonroboticsteam.org