



WPAFB Educational Outreach



INSPIRING STUDENTS IN STEM

March 2022

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K-12 STEM ENQUIRER

FIRST® Ohio Championship

The weekend of March 5 and 6 was a frenzy of robotics activity across the state of Ohio as 36 FIRST Tech Challenge teams and 39 FIRST LEGO League teams competed in the Ohio Remote Championship tournaments. In a remote setting, teams were able to complete their robot matches using official scoring software and video submissions and they met with judges via Zoom to evaluate their robot design, programming, teamwork, innovation, and outreach.

The competition was fierce for both programs as these Championship teams were the highest performing teams in Ohio. The judges had extremely difficult decisions to narrow these amazing and inspiring teams down to award winners and champions! Notable results from each program:

FIRST Tech Challenge:

Inspire Award Winners: 6133 The Nuts! from Walnut Hills High School in Cincinnati

Top Ranked Robot: 17978 Robo Kai from Bishop Fenwick High School in Cincinnati

Dean's List Finalists: Lakshmi Avanthsa (team 18386), Anaya Daryapurkar (team 15269), and Eashan Vytla (team 8719)

FIRST LEGO League:

Champion's Award Winners: 50927 Positive Protons from Solon

Champion's Award Finalists: 25313 CRE8 from Cincinnati & 37732 Power Pandas from Cincinnati

Global Innovation Award Nominees: 25313 CRE8, 37575 Howl Bout It (Cincinnati), and 36408 Tintonics (Warren)

All of the above listed teams and individuals have qualified to represent at international events! FTC 6133 and 17978 along with FLL 50927 will represent Ohio at the prestigious FIRST Championship in Houston where they will compete against other Regional champions from around the world! Our Ohio FIRST Tech Challenge Dean's List Finalists will also be competing at this event for one of the only individual awards that exists in the program; the Dean's List Finalist Award recognizes outstanding youth leaders. The FLL Champion's Award Finalists will represent Ohio at the Razorback Invitational hosted by University of Arkansas and the three Global Innovation Award nominees will compete against teams from around the world to determine which team has the most innovative solution to this season's timely project challenge which called on FLL teams to solve problems associated with the transportation of cargo.

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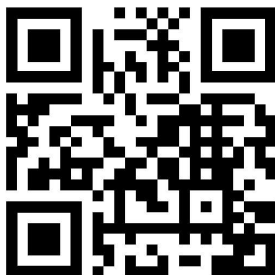
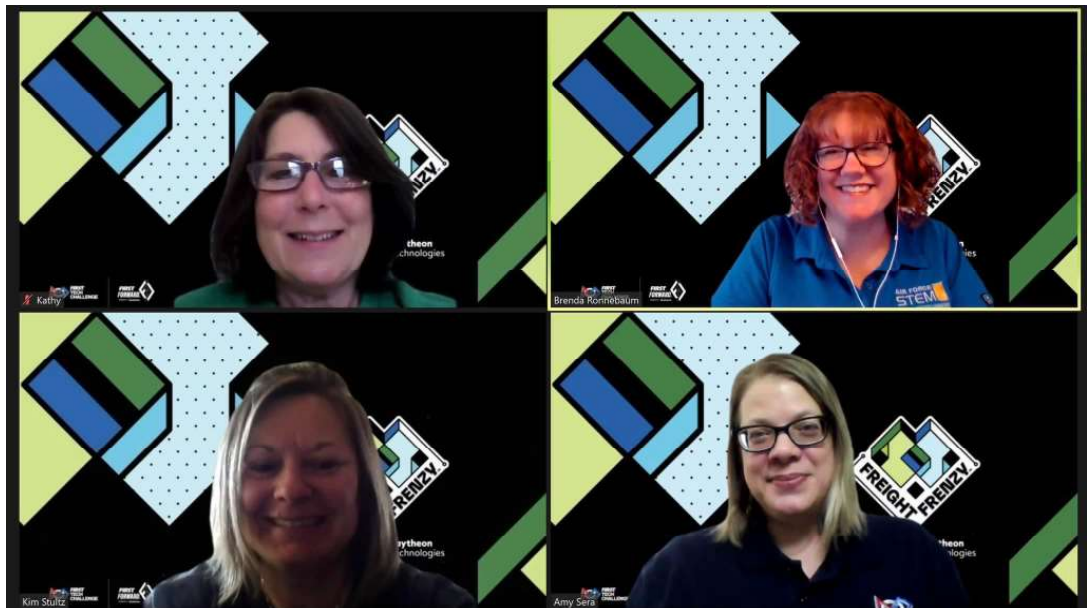




Photo descriptions clockwise from top left:

1. Ohio FTC Inspire Winners 6133 The Nuts! from Walnut Hills High School in Cincinnati.
2. Ohio FTC Dean's List Finalists
3. Ohio FLL Challenge Champions 50927 Positive Protons from Solon
4. WPAFB EO Staff working the remote FTC Championship
5. Ohio Global Innovation Award Nominee FLL Challenge team 36408 Titonics from Warren



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By Gina Marie Giardina

Air Force Research Laboratory Public Affairs

DAYTON, Ohio (AFRL) – Nearly 700 children and their families visited the Wright-Patterson Air Force Base Educational Outreach booth at The Big Hoopla's STEM Challenge March 13 at the Dayton Convention Center.

The children, age's kindergarten thru eighth grade, were given model airplane kits as well as paper clips, clay, clips, and paper, with the challenge of building an airplane that could fly for 12 seconds.

“The children can add different weights to see if that helps them fly longer. For this project, we'll time their flights to see if they can fly for 12 seconds, which was the length of time the Wright Brothers first flew in Kittyhawk, North Carolina,” said Daniel Andrews, Wright-Patterson AFB Outreach division chief. “If one way doesn't work, we encourage them to go back to the drawing board and keep trying to improve their time.”

Andrews explained that encouraging children to follow their interests and imaginations with STEM at the foundation is a key initiative of AFRL, the organization that manages the outreach office. Not only will it develop problem-solving and critical thinking skills, but also allow for fresh ideas and innovation for future problems that need to be solved.

The educational outreach program has many K-12 STEM programs available such as Wizards of Wright, Department of Defense STARBASE Wright-Patt, and several FIRST Programs, among others.

One visitor who stopped by the booth was The Big Hoopla's STEM Teacher of the Year, Garra Myers, a science teacher at St. Peters in Huber Heights, Ohio. She explained how she uses the many resources from Wizards of Wright to supplement her lesson plans to build her students' interest in STEM.

“I use [Wizards of Wright] from Wright-Patt all the time,” said Myers. “When a kit comes in and students see it in the lobby, they get so excited. They absolutely love the kits.”

She went on to explain how the outreach team has been accommodating when she needed certain projects, and that she's been able to keep the kits longer when possible. One of her students' favorite projects of the school year, which she saves for May when summer fever sets in, is to build and test model rollercoasters to learn about physics.

“Some of my students who really struggled to stay focused last year, especially at the end of the school year, had a great time with the rollercoaster project,” she said. “It was touching to see how engaged they were.”

During the kickoff to the event, Gen. Arnold W. Bunch, Jr., Air Force Materiel Command commander, discussed his interest in both basketball and in STEM, the latter which led him to be an engineer for the Air Force. He spoke to the young audience about a few careers in the Air Force centered around science, technology, engineering and math, and the importance of a strong STEM foundation. He stressed that while these fields are important to the Air Force, they are important to industry as well.

“So to the youngsters out there, please study the math. We need you. We need you to be smart in these fields because it will give you a better life in the long run, and also to help us and everyone else,” said Bunch.

The Big Hoopla STEM Challenge was one of several events centered around the NCAA First Four men's basketball tournament, which tips off the evening of March 15.

About AFRL

The Air Force Research Laboratory is the primary scientific research and development center for the Department of the Air Force. AFRL plays an integral role in leading the discovery, development and integration of affordable warfighting technologies for our air, space and cyberspace force. With a workforce of more than 11,000 across nine technology areas and 40 other operations across the globe, AFRL provides a diverse portfolio of science and technology ranging from fundamental to advanced research and technology development. For more information, visit: www.afresearchlab.com



Visitors of the WPAFB Educational Outreach booth build model airplanes during The Big Hoopla STEM Challenge March 13 at the Dayton Convention Center. (U.S. Air Force photo/Gina Marie Giardina)



Gen. Arnold W. Bunch, Jr., AFMC commander, speaks with a family that stopped by the WPAFB Educational Outreach booth during the event (U.S. Air Force photo/Gina Marie Giardina)



Col. Patrick Miller, 88th Air Base Wing commander, watches his son Justin build a model plane at the WPAFB Educational Outreach booth during the Big Hoopla STEM Challenge March 13 at the Dayton Convention Center. (U.S. Air Force photo/Gina Marie Giardina)



A student tests his model plane in the WPAFB Educational Outreach booth during The Big Hoopla STEM Challenge March 13 at the Dayton Convention Center (U.S. Air Force photo/Gina Marie Giardina)



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