

**Daniel J. Andrews**  
WPAFB K-12 STEM Coordinator  
Engineering and Technical  
Management Directorate, AFRL/EN  
2261 Monahan Way, Bldg. 196  
Wright-Patterson AFB, OH 45433  
daniel.andrews.1@us.af.mil

# K-12 STEM ENQUIRER

## Mrs. Goldfein visits STARBASE

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### ...Join Us Next Month

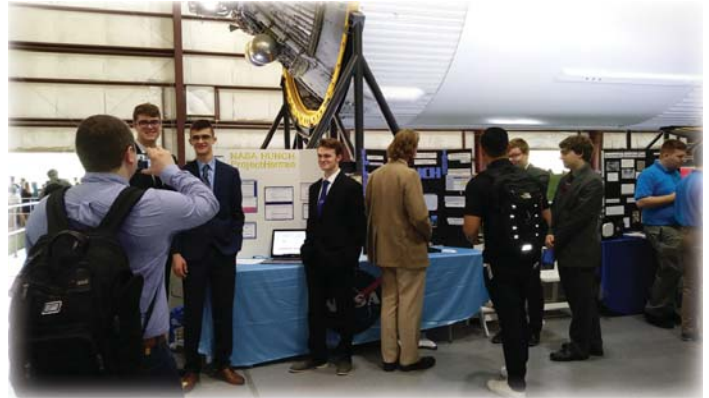
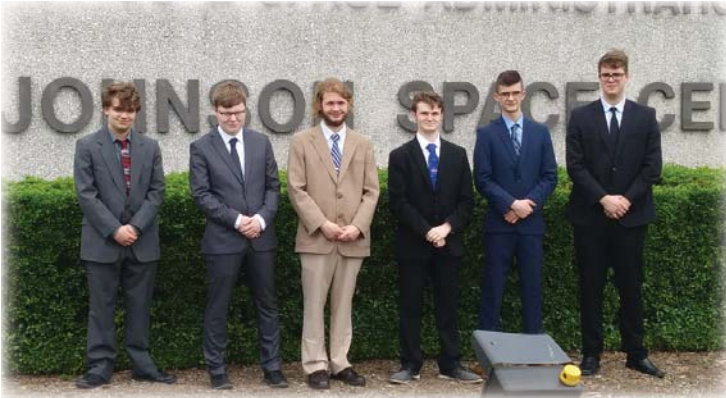
- ISEF
- STARBASE end of year
- Summer Camps



Mrs. Dawn Goldfein, spouse of Gen. David L. Goldfein, Chief of Staff of the United States Air Force, visited DoD STARBASE Wright-Patt. Mrs. Goldfein observed lessons with students from Fairborn Intermediate School from the Fairborn City School district. DoD STARBASE Wright-Patt students showcased to Mrs. Goldfein how this nationwide Department of Defense program gives students, military, and civilians alike the chance to get hands-on lessons in science, technology, engineering, and math (STEM) to spark the next generation of creative thinkers.



## NASA HUNCH Program



Students in the Miami Valley Career Technology Center's Game Programming & Web Applications class worked with Lt. Travis Rennich from September through March this year to develop a prototype "Crew Personalized Mission Reminder Tool" for NASA's H.U.N.C.H. Design program. Lt. Rennich worked with four teams from the class every week, providing research support, feedback on their progress, and general guidance. After three video conferences with NASA engineers, two of the four teams Lt. Rennich mentored were selected among the top three for their prototype, and were invited to NASA and Johnson Space Center to collaborate with the NASA engineers and astronauts. Students thanked Lt. Rennich with a signed certificate, a candy-filled mug, and an MVCTC sweatshirt. Student prototypes will be used to develop the final model to be implemented on the International Space Station.

For more information about NASA HUNCH programs, please visit <https://nasahunch.com/>



## Engineers' Week at AFIT

The Wizards of Wright (WOW!) program was excited to once again participate in AFIT's Engineers' Week in April. For Engineers' Week, AFIT hosts middle and high school students, from several area schools, to showcase what they do as scientists and engineers.

WOW! Wizards presented the Wind Tunnel which visually demonstrates aerodynamics. As different objects (airfoils, geometric shapes, and model airplanes) are placed in the wind tunnel, fog is sent through the tunnel so students can see the changes. Discussions about airflow and different variables make this a great visual learning experience for students.

Students were also able to participate in activities involving Electricity and Magnetism. They had a chance to witness the Van de Graaff generator produce static electricity and learned more about positive and negative charges. Many students took the opportunity to feel the static charge and watch their hair stand up.

WOW! also presented a demonstration on Fire Engineering and Fire Safety. Our Wizard posed questions like: What is a fire? What makes it burn? and How do we extinguish fires properly and safely?

Visiting students were also able to check out the WOW! Energy Bike. This provides students with a way to understand and compare the amount of energy required to power an electronic device like a cell phone, or different kinds of light bulbs, with the amount of energy they are able to produce by pedaling a bicycle.

These demonstrations, and many others, are available through the WOW! program. For questions or more information contact WOW! Program Manager Angel Callahan at 937-938-4868.



# FIRST® Championship

This past week in Detroit, more than 700 robotics teams from 37 countries participated in FIRST® Championship, an international robotics championship. It was a week filled with exciting robot competitions, intense judging sessions, competitive play, collaboration, innovation, and youth leadership. FIRST® (For Inspiration and Recognition of Science and Technology) inspires innovation and leadership in young people through engaging, team-based robotics challenges.

Thirty-nine teams of K-12 students competing were from our region! Four FIRST® LEGO League Jr (ages 6 to 9) teams participated in the World Festival Expo in which they met teams from around the world and presented their learning to reviewers. Three FIRST® LEGO League teams (ages 9-14) competed in World Festival. Ten FIRST® Tech Challenge teams (grades 7-12) and twenty-two FIRST® Robotics Competition teams (grades 9-12) competed in FIRST® Championship, a global championship featuring high-energy robotics matches. Not only did all of these teams represent themselves and our region admirably, they were able to collaborate with teams from around the world in the process. Several teams won awards and/or excelled in the robot game competition, including:

### FIRST® Robotics Competition:

Dean's List Winner: Thomas Franco of 5740 Trojanators

1787 Flying Circuits from Cleveland, 3324 Metrobots from Columbus made it to their subdivision semifinal matches. 1787 also won their subdivision's Creativity Award.

4028 Beak Squad from Cincinnati and 5740 Trojanators from Cranberry Township, PA made it to their subdivision quarterfinal matches.

2614 MARS from Morgantown, WV won their subdivision and made it to the finals.

7885 EC.exe won their subdivision's Highest Rookie Seed Award

### FIRST® Tech Challenge:

5029 PowerStackers of Dayton, Ohio were a finalist for the Inspire Award

5040 Nuts and Bolts from Loveland – Design Award Finalists

14320 The Antidote from New Albany – Motivate Award Finalists

Please join us in celebrating all of the amazing teams who earned spots at the global FIRST® Championship! We are proud of all of them!



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