

MAKING AN IMPACT

AIAA K-12 Activities Have a Big Impact at 2022 AIAA SciTech Forum



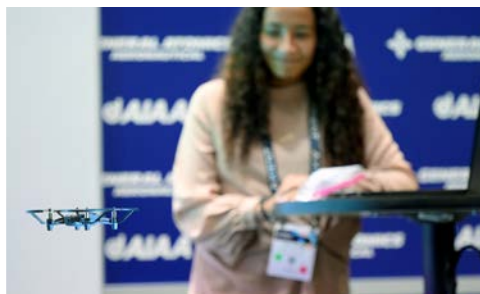
AIAA Members Bring Hands-On Activities to High Tech High School

By Craig Merrett

On 5 January, 18 AIAA members from the Aerodynamics, Structures, and Structural Dynamics Technical Committees (TCs) and the local AIAA San Diego Section visited grade 9 students at High Tech High School during the 2022 AIAA SciTech Forum in San Diego. Also visiting were members from the AIAA STEM K-12 Outreach Committee and the AIAA Diversity and Inclusion Working Group. Over 100 students tried hands-on demonstrations to learn some of the basic principles behind aerospace engineering. The Aerodynamic TC’s small wind tun-

nel with smoke visualization illustrated how air flows over an airplane, and students created the Coanda effect using straws and a ping-pong ball. The Structures TC’s wooden models of a wing revealed the effects of stiffness and geometry on the bending and twisting of wings.

The Structural Dynamics TC marked their 10th year of visiting schools as part of AIAA SciTech Forum with exciting experiments, including a Ruben’s tube visualizing acoustic waves created by music. Students also used tuning forks to experiment with resonance, and Chladni plates to show mode shapes using sand. The students were given the opportunity to chat one-on-one with the engineers about their careers and the exciting technologies they work on. We thank High Tech High physics teacher Amilio Aviles for coordinating this visit.



Girls Take Flight: Drone Program Returns to AIAA SciTech for HUB Session

Girls Take Flight is an innovative program for 10th and 11th grade high school girls that provides hands-on experience building and flying drones and explores their real-world uses. Students become FAA-certified drone pilots. Under the leadership of Jim Stone

and Vanesa Dominguez, three students, Fatima Laugo, Shyanne Smith, and Trinity Watkins, presented a HUB session on the drone program and demonstrated their knowledge of Python to program a tello drone. The program is run by nonprofit Elementary Institute of Science (EIS) in San Diego.

After the HUB presentation the students met with exhibitors and were provided with the opportunity to tour a Gulfstream G500.



Go For Launch! Student Program Update at AIAA SciTech Forum

Long-time AIAA advocate and educational partner Higher Orbits inspires the next generation of STEMists and Explorers with its Go For Launch! Program. In a HUB session, three program alumni, Abby Maltese, Sophie Crowder, and Claire Pickerel, described their Go For Launch! experience, their STEM pursuits, and student science in space.

Abby Maltese was part of the winning team in the Go For Launch! Cygnus Series. Her team's experiment focuses on the evaluation of self-healing materials in micro-gravity. This experiment launched aboard the NG-10 flight on 17 November 2018, and the students are still analyzing the data.

For more information about how to get involved with AIAA and make an impact please visit aiaa.org/foundation or contact Alex D'Imperio, alexandrad@aiaa.org.

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- › Acceptance period begins 1 February 2022
- › Nomination forms are due 15 April 2022
- › Reference forms are due 15 May 2022

Candidates for FELLOW

- › Acceptance period begins 1 April 2022
- › Nomination forms are due 15 June 2022
- › Reference forms are due 15 July 2022

Candidates for HONORARY FELLOW

- › Acceptance period begins 1 February 2022
- › Nomination forms are due 15 June 2022
- › Reference forms are due 15 July 2022

Criteria for nomination and additional details can be found at aiaa.org/Honors

