

## AIAA Greater Huntsville Section ignites interest in rocket science with fun-filled booth at STEAMfest 2021 *by Robin Osborne*

The American Institute of Aeronautics and Astronautics Greater Huntsville Section (AIAA GHS), through the generous sponsorship of ERC, contributed to an exciting day of interactive science by hosting a large booth at STEAMfest 2021. According to Joe Iacuzzo, founder and director of Huntsville Science Festival, over 4,500 people attended the festival, which ran from 10 am to 6 pm on Saturday, Oct. 30 in the East Hall of the Von Braun Center in downtown Huntsville. Visitors to the AIAA GHS booth enjoyed activities such as launching small 3D-printed rockets, a “tour” of a scaled-down Saturn V rocket via Lego Saturn V models, an introduction to cryogenic materials through intriguing dry ice demonstrations, and aerospace-themed arts and crafts. Jeremy Fehrenbacher, AIAA GHS member and owner of the non-profit charity, Carve Out Tomorrow, brought a Bernoulli demonstrator, small tesla coil, thermal engines, and other fascinating items to share with booth visitors.



Future engineers and rocket scientists were excited to help assemble the 3D-printed rockets and watch them propel high into the air from the thrust generated by the chemical reaction inside the rockets’ film-canister engines. The engines used sodium bicarbonate tablets and water as propellants.



Children and adults alike delighted in seeing 1:110-scale Lego models of the Saturn V rocket that took humans to the Moon. In addition to sharing interesting facts about the Saturn V rocket, AIAA volunteers showed visitors the multiple rocket stages, the number and relative sizes of the different engines, the lunar lander and command modules, and other important features of the rocket.





Dry ice sublimating in the bottom of large, graduated cylinders in a mixture of water, dish soap, and food-coloring formed lots of mesmerizing carbon dioxide bubbles that young festival goers were anxious to touch, examine, and observe. Many visitors noted how much faster the heavy CO<sub>2</sub>-filled bubbles dropped in comparison to the light air-filled bubbles that were also being generated at the booth. Guests could attempt to hold larger “ghost bubbles” in their hands that would pop and leave behind a fog of white vapor.





There were also plenty of arts and crafts, including aerospace-themed wooden ornaments for guests to decorate for AIAA GHS's Christmas tree that will be part of the 2021 Tinsel Trail in downtown Huntsville's Big Spring Park in December. Tinsel Trail is an annual event in which local businesses, organizations, and families participate to promote community.



AIAA GHS's participation in STEAMfest 2021 was made possible by ERC, a company headquartered in Huntsville that was also a major contributor to STEAMfest 2021. ERC engineer and YouTube personality Destin Sandlin of "Smarter Every Day" fame served as the keynote speaker for the festival. Although this year marks the second year for STEAMfest, it is the first year AIAA GHS has participated since the COVID-19 pandemic forced the festival to be a scaled back, online event in 2020.

According to the STEAMfest website, "The Huntsville Science Festival and its exhibition component, STEAMfest, were established to create inspiration and an understanding of the opportunities that STEM learning offer. Founded by the Innovation for Education Foundation, an Alabama-based non-profit organization, along with support from the Science Festival Alliance of MIT, the festival is an annual event created for the benefit of all those with an interest in science and all those seeking a better understanding of how science and technology are used to create a better and more exciting world."



*From left to right: AIAA GHS Pre-college Outreach Director Robin Osborne with Keynote Speaker Destin Sandlin, AIAA GHS Public Policy Director Dr. Naveen Vetcha, and ERC CEO and AIAA Associate Fellow Dr. Ernie Wu.*

Videos from STEAMfest 2021 are available on [YouTube](#) and [WHNT News 19](#). To learn more about the Huntsville Science Festival and STEAMfest, please visit the [official website](#).

The AIAA GHS Council appreciates the assistance and support of Michele Armstrong, ERC's Charitable Giving and Community Outreach Coordinator, for working with AIAA GHS to make this year's booth both entertaining and educational.