

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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LAUNCHING STUDENT PASSION ABOUT STEM/STEAM INTO HIGHER ORBITS

Abstract

Due to the statistical decline in aerospace professionals graduating secondary institutions in the western world, a focused effort of recruitment is required to bolster interest and spark creativity to excel in space. The inception of human space flight inspired multiple generations to great deeds in aerospace. However, as the general public's knowledge and interest in human spaceflight waned, so did the corresponding interest of our youth. This motivation vector can be corrected through crafted experiences for students that may not have yet developed a specific interest and by utilizing these same tools to continue the spark of interest in STEM for students who are already engaged. We can not afford to neglect either group of students.

Few things in the world can capture student attention like Human Spaceflight so we must leverage this interest to launch student engagement with STEM, STEAM, Leadership, Teamwork and Communications. Higher Orbits exists to do exactly this. Using the wonder of spaceflight, Higher Orbits has created several programs that gives students actual access to experimentation onboard ISS as well as other spacecraft. Founder/President Michelle Lucas will share insights into these programs that are effectively igniting student pursuit of STEM. Additionally, Ms. Lucas will bring at least 1 high school student whose experiment has flown into space to tell their tale of how this experience has changed their trajectory in their career and life. This first hand account is an eye-opener to all in the industry who think that if we have "lost" students from STEM before middle school that we have lost them forever. We would like to help show, this couldn't be further from the truth. It's important to continue to engage with students at the high school level who aren't sure about this whole STEM topic because we still have the opportunity to ignite a spark within them.