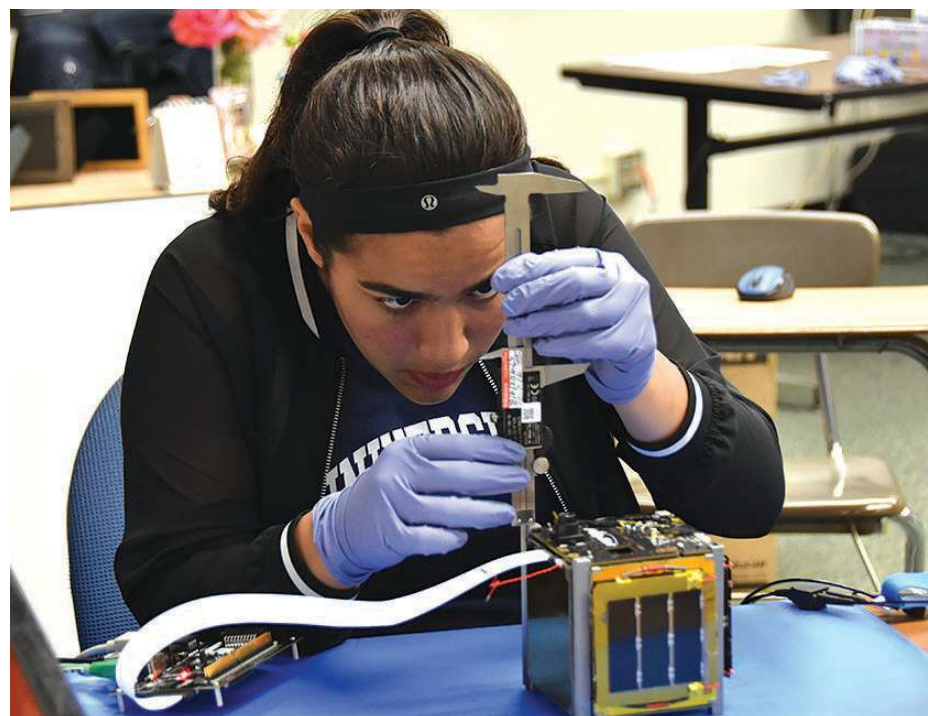


K-12 STEM, INNOVATION & ARTS



Inspiring the Next Generation of Innovators

Orange County is one of the most diverse and fastest growing technology sectors in the United States, creating a high demand for skilled and dynamic talent to support their growth. One local nonprofit has found a way to unite the academic and business communities to create opportunities for students to gain the skills, confidence, and determination needed to find success in today's competitive STEM workforce.

Two years ago, the Irvine CubeSat STEM Program started as a collaboration between Irvine Public Schools Foundation (IPSF), and Irvine Unified and Tustin Unified school districts as a way to attract and retain students, teachers and faculty in STEM disciplines, as well as strengthen Orange County's future workforce. The goal was to change the way students experience STEM education and inspire the next generation of innovative thinkers, makers, programmers and explorers. What has evolved has been truly groundbreaking, giving high school students a once in a lifetime opportunity to plan, build, and test a miniature satellite that will be launched into space, and then analyze data sent back to earth from orbit.

"My background is in aerospace engineering, and when I first heard about this project, I wondered, 'can high school kids really build a satellite?'" said Irvine High School teacher and CubeSat mentor, Archana Jain. "But they've gone above and beyond my expectations. They've shown me that they're not afraid of taking that risk. They dove in and figured it out themselves – there is no manual for this, and it's not a kit."

The program's first satellite, Irvine01, is completed and currently awaiting launch from India in March 2018 and has a chance to become one of the first successful high school-led missions of its kind in the entire United States. Even before the official launch of IRVINE01, the Irvine CubeSat program has been recognized by NASA as a program to watch.

IRVINE02, Irvine CubeSat's second CubeSat mission, is one of 34 small satellites nationwide selected by NASA to participate in their CubeSat Launch Initiative and fly on a fall 2018 launch. Irvine CubeSat is one of only two high schools chosen by NASA to participate in this prestigious program, alongside renowned universities and research centers. IRVINE02 will fly an electric propulsion system that will allow students to acquire technical skills in tracking and communicating with the satellite.

"It is a huge honor for Irvine CubeSat to be recognized and selected by NASA to participate in a future launch," said Neda Eaton, president and CEO of IPSF. "This unbelievable opportunity validates the hard work and dedication of the students, teachers, and all of the partners involved. The Irvine CubeSat STEM Program is a

true testament to what can be accomplished through the collaboration of industry experts, corporate partners, and public education. These students are setting an example for young people around the world that anything is possible, and we are excited to be part of making their dreams become a reality."

The Irvine CubeSat STEM Program is made possible through dynamic partnerships between private funding and public education, facilitated by IPSF. Corporate sponsors including FivePoint, Ingersoll-Rand/Trane, Cisco, Resilient, Google, the Arnold and Mabel Beckman Foundation, and Microsemi have made



the program a true collaboration, and an inspiring example of what can be accomplished when communities come together in support of public education.

The students engaged in this program are learning much more than just how to build a satellite, they are gaining experience on how to collaborate, communicate, and present their ideas to not only their peers, but industry professionals and mentors from NASA/JPL, CalPoly SLO, Ecuadorian Space Agency (EXA), Accion Systems, and Tyvak Nano-Satellite Systems. The value of this experience will take students far beyond their classrooms and into their future careers.

"It has been enlightening for me to sit back and watch the students take the lead on this project," says Mrs. Jain. "We always talk about how few students are going into STEM careers, and ask ourselves how we'll get them interested in STEM. I think the answer is to expose them early on. I hope through this project many of my students go on to careers in STEM – the industry all around the world needs them."

If you are interested in getting your company involved with the Irvine CubeSat STEM Program, please contact Katie Holmes at kholmes@ipsf.net. To learn more about Irvine Public Schools Foundation, visit our website at www.ipsf.net.