8th Annual Career STEAMposium

Build Your Future on STEAM

Gamma Zeta Boule Foundation

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Alpha Kappa Alpha Sorority, Inc.® – Pasadena Chapter

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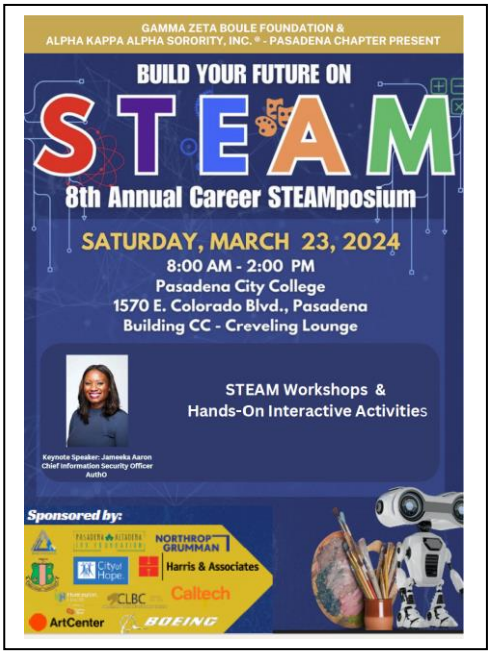
8th Annual Career STEAMposium

The **8th Annual Career STEAMposium** took place on Saturday, March 23, 2024 at Pasadena City College (PCC). We promoted the event and said that it would take place rain or shine – and boy did it rain. Despite the rain, over 400 students, parents, exhibitors, speakers and volunteers came out as the theme for the day was **Build Your Future on STEAM**. It was truly a STEAM filled day with 20 Speakers across 11 workshops, 8 Hands-on/ Interactive Activities and a networking lunch with STEAM professionals.



Our delightful emcee, Ramsey Jay, Jr., author of *The Mentorship Engine* kicked the day off with high energy that got the attendees motivated and ready to go for the day. After a few words of encouragement from Councilmember Justin Jones and the Honorable Patrice Marshall McKenzie, PUSD, our Motivational Speaker, Dr. Soraya Coley, President of Cal Poly Pomona took the floor. She delivered a dynamic speech where she wrapped with the poem "Don't Quit" by Edgar Guest. This poem encourages perseverance in the face of any challenges.

> *When things go wrong, as they sometimes will,*
> *When the road you're trudging seems all uphill,*
> *When the funds are low and the debts are high,*
> *And you want to smile but you have to sigh,*
> *When care is pressing you down a bit—*
> *Rest if you must, but **don't you quit**.*

Our Keynote Speaker, Jameeka Aaron, energized the room with her address entitled **"Soaring in Cyberspace - Navigating a Career in Tech".** She told the attendees that they can learn to code, tinker with gadgets, create a virtual world , or make the one that we live in a better place for all of us. She encouraged them to always ask questions, and never stop being curious. The world of technology is constantly changing, and the only way to keep up is to keep learning.

Jameeka Aaron's challenge to the students was, "Dream big, aim high, and never let anyone tell you that you can't achieve your goals. Because trust me, if I can soar in cyberspace, so can you. Stay curious, stay determined, and most importantly, stay true to yourself."

This year's event was blessed by Team Sprocket from Diamond Bar with 18 3D printers. We in turn donated 8 of the printers to other Hands-on Activities teams, and then raffled the rest. Before breaking for the workshops three lucky attendees won a printer! The attendees then picked 2 of 10 workshops to enjoy. The speakers for the workshops were phenomenal and each continued to share, demystify and excite the attendees on the possibilities within STEAM. One of the core requests that we have of our guest speakers is for them to highlight what they do today, but also think about when they were students sitting in a workshop like this. We ask them to explain their journey from being a student to the professionals that they are today. The basic idea is for the students to leave the workshops understanding that they too can be one of these professionals one day. The STEAM professionals made themselves available and answered questions in the workshops and during the networking lunch. On-going feedback on this event is people appreciate the openness and willingness to listen, answer questions and give advice to our attendees as we inspire them to pursue a future in STEAM.

After the workshops, the students headed to the PCC Quad to partake in all the Hands-on/ Interactive Activities. The weather was not kind to us as it drizzled throughout most of this hour in the quad. To the students' credit, they powered through and visited many of the booths.

Many students commented on how they enjoyed the sessions and appreciated how knowledgeable each speaker was on their topic. At the end of the day, they were Likely to Very Likely to recommend this event to their friends. Some direct verbal quotes and quotes from the evaluations were:

- "The program is very informative. All the hands-on activities provide a great experience on the different fields of engineering. The guest speakers are very informative and motivated."
- "It was cool and I learned about math and more math."
- "I most enjoyed the talks with experienced engineers and the ability to get contacts for internships/ jobs."
- "I really liked learning about STEAM and about careers. Everyone was nice and motivational. Please continue the program!"
- "I enjoyed the information and the way they gave that information captured my attention."
- "I think that the best part of this session was all the professionals from various STEAM careers. The information and stories they gave were incredibly valuable and inspired me to keep going and put my all into what I'm passionate about."
- "The knowledge that was shared to students was extremely useful and intentional."
- "Workshops. Would love to listen to more workshops. I'm impressed at how organized the event is. Speakers are very knowledgeable."
- "I enjoyed the technology class with Lanny Smoot as he was very enthusiastic about it."

Overall, this was a fun and exciting event loaded with plenty of information and fun for all the attendees. We had attendees of all ages, and everyone found something that was a match for them as they moved through the day.

Overview of the 8th Annual Career STEAMposium

Motivational Speaker – Dr. Soraya Coley

The day kicked off with a Motivational Speech by **Dr. Soraya Coley**.

Dr. Soraya Coley is the President at Cal Poly Pomona where she has brought a renewed energy level back to Cal Poly Pomona. She is a veteran administrator with more than 20 years of experience in higher education and became the sixth president of Cal Poly Pomona in January 2015. Her experience includes serving as Cal State Fullerton's dean of the College of Human Development and Community Service, as administrative fellow, and professor and department chair for the human services department. Dr. Coley has brought a mission to Cal Poly focusing on "The Future of Work and Human Engagement" to promote integrative learning, discovery and creativity by establishing "centers for excellence" which will capitalize on the school's polytechnic identity, strengths and opportunities for discovery, innovation, research and creative expression.

Her speech highlighted the importance of not quitting. Life will deliver twists and turns, but don't quit.

Keynote Address

Jameeka Aaron, Chief Information Security Officer at Okta – Topic: **"Soaring in Cyberspace - Navigating a Career in Tech"**

Jameeka Aaron has more than 20 years of cyber security experience, having previously worked at Nike, Hurley, and Lockheed Martin, and served in the US Navy. As the ongoing dialogue on threats, standards, and best practices continues to drive awareness of cyber security issues, we noticed something slipping under the radar: the contributions of security professionals working behind the scenes to stay ahead of the curve. Ms. Aaron is one of those that stays ahead of the curve and delighted the audience as she kicked off a STEAM filled day!

In her keynote address, she walked the attendees through her career journey and how she has been at the forefront of safeguarding sensitive information and infrastructure, navigating the ever-evolving landscape of digital threats. She then helped them understand what her journey means to each of them. Because the world of technology is vast and ever-expanding, and there's a place for each and every one of you in it. In fact, it's your world, all of it.

STEAM Workshops

Science Workshop 1

Dr. Tamara Chambers is the Chief Medical Director of Otolaryngology-Head and Neck Surgery, Speech and Audiology at LAC+USC Medical Center. She also serves several other administrative roles, including the Associate Medical Director for Clinical Efficiency, Associate Director of Perioperative Services, and Assistant Designated Institutional Official for Safety, Fairness, and Equity (SAFE). Finally, she is an Associate Professor and the Associate Program Director in the USC Caruso Department of Otolaryngology-Head & Neck Surgery. She earned her undergraduate degree from Stanford University and received her medical degree from the Drew/UCLA Medical Education Program. She primarily works with residents at the Los Angeles County + University of Southern California Medical Center, where she previously completed her residency.

Dr. Lori Carter-Edwards, PhD, MPH is the Associate Dean of Community Engagement & Government Affairs and Professor of Health Systems Science at the Kaiser Permanente Bernard J. Tyson School of Medicine. She leads the Office of Community Engagement. Within this role, she seeks to bring the community into the school and the school into the community through outreach, education, practice, service, and research. A cardiovascular social epidemiologist and health educator, she has over 25 years of experience conducting programs and studies in faith communities, with national expertise in community engaged research and clinical and translational science.




Science Workshop 2

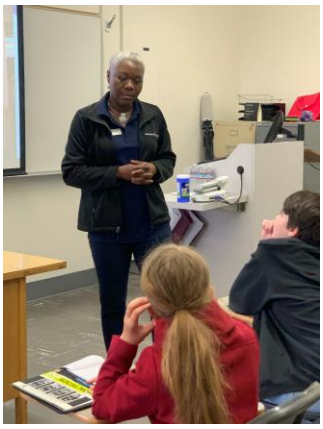
Dr. Rosaysela Santos is an Assistant Professor in the department of Biomedical Sciences at the Kaiser Permanente Bernard J. Tyson School of Medicine (KPSOM). Dr. Santos specializes in the instruction of anatomy and embryology/ developmental biology. Her research focuses on how anatomy instruction can be enhanced through the use of technology, peer-led teaching, and integrating clinical procedures and physical examinations into anatomy curriculum. Dr. Santos earned a BS in Biology at California Irvine (UCI and earned her PhD in Biomedical Sciences at UCI where she completed graduate research in the molecular etiology of congenital heart defects. Does the human body fascinate you? If so, come to this workshop and learn what an anatomist is and does, plus you'll get a chance to check out some anatomical specimens while you're here!

Abraham (Abe) Gallegos, MD, MS is an Assistant Professor in the department of Health Systems Science at the Kaiser Permanente Bernard J. Tyson School of Medicine (KPSOM). Dr. Gallegos is a general pediatrician in health services research who is passionate about understanding how healthcare system factors contribute to disparities in the utilization of developmental services for children with developmental disabilities. Dr. Gallegos earned a BS degree in Biology at California State University, Dominguez Hills and attended UCLA for medical school, his pediatric residency training and health services research fellowship training. Come to this workshop if you are interested in a medicine and want to hear first hand how a 1st generation, racially under represented physician has successfully navigated caree

Technology Workshop 1

Lanny Smoot is a Sr. Research Scientist at Walt Disney Imagineering's Research and Development organization where he has lead R&D groups that focused on innovative sensing techniques, human computer interaction, robotics, imaging, and special effects systems for the Disney Parks. Smoot's inventions include the extendable light saber used in Disney Live Entertainment, the new HoloTile floor, which Disney calls "the world's first multi-person, omni-directional, modular, expandable, treadmill floor," and the interactive koi ponds at Hong Kong Disneyland Hotel. Lanny was recently inducted into the 2024 National Inventors Hall of Fame. Disney's website describes Lanny as "the most prolific Black inventor in American history." Lanny excited and inspired students to dream and find what they 'love to do', find a profession that does it and go after it.

Olukemi Sawyerr is the Associate Vice President, Office of Academic Innovation at Cal Poly Pomona. Dr. Sawyerr is the functional leader of the Innovation labs at Cal Poly Pomona. She has been the primary driving force behind encouraging student thinking "outside the box". Kemi inspired students to get out of their comfort zone to grow, see things different and try different things.



Technology Workshop 2

Elena Sorina Lupu is a PhD student in the Aerospace Department at California Institute of Technology and an affiliate of the Keck Institute of Space Sciences. She has master degrees from Caltech in Space Engineering and from the Swiss Federal Institute of Technology, Lausanne (EPFL) in Robotics and Autonomous Systems. In the past, she held positions at CERN, in Switzerland, and Soundbrenner, in Hong Kong. Her current research focuses on autonomy, control, and machine learning applied to robotics and spacecraft. She won awards and fellowships like the AI4Science Fellowship from Amazon, the Anita Borg Women Techmakers from Google, and the Best Student Paper Award at the 11th International Workshop on Satellite Constellations and Formation Flying. Elena inspired students to pursue robotics and to understand the impact of AI on robotics.

Ehab Gerges is a Senior Vice President with Harris & Associates, a consulting firm that is focused on improving communities and creating better places to live through smart, safe, and sustainable solutions. He is currently leading the firm in delivering the first phase of the High Speed Rail project in California. He graduated from California State University, Long Beach with BS in Civil Engineering. Ehab started his career in the consulting industry as a designer, working on roadway, drainage, and utility projects. He held many positions throughout his career leading design and construction teams take part in delivering landmark projects throughout California. Ehab delighted students as they learned about the California High Speed Rail project.

Engineering Workshop 1

Edward Chang is the Senior Engineering Manager (Ret) for the Aerosciences organization of Northrop Grumman which includes engineering design, aero test, stress analysis, project engineering, and management of aero laboratories for developmental aircraft performance validation and verification. Edward was educated at San Francisco State University, Cal Poly Pomona, and USC. He has 33 years in the industry working for General Dynamics, NASA, and Northrop Grumman. Projects involved in include: Standard Missile I & ll, Phalanx, Hyper X43A, B-2 Spirit Bomber, Global Hawks UAV, X-47 JUCAS, and the most recently revealed -The B-21 Raider. Ed inspired students to think about their future and their goals and to ask themselves, "Do I want to make a living or do I want to build a career!"

Engineering Workshop 2

Ewurabena Mensa-Wood is the Coker Operating Assistant, where she is responsible for the safe and reliable operation of the Coker unit at the Chevron El Segundo refinery. She joined the Chevron Corporation in 2013, and has held various leadership positions in the Operations, Technical and Maintenance & Reliability organizations. She spent 11 years in the Nuclear Industry where she worked in numerous engineering roles at the San Onofre Nuclear Generating Station. Ewurabena has a passion for aviation and is a licensed private pilot. She holds a Bachelor's in Aerospace Engineering from Queen Mary College, University of London, and a Master's in Engineering with emphasis in Mechanical Engineering from California State Polytechnic, Pomona.

Heather O'Rourke is a Logistics Quality Engineering Supervisor at Mazda North America Operations. Background:10 years of Automotive experience in Quality Operations for Parts and Finished Vehicles at Field, Regional, National and Global levels. Heather's Education includes a Technology & Operations Mgmt. degree from Cal Poly Pomona College of Business. Her core competencies include Lean Processing, Quality, Operations/Supply Chain, Gemba, leadership. Heather helped students to understand that if you don't know where you're headed, no problem, but by attending her workshop, students learned to put the pedal to the metal to learn more about the possibilities!

Arts Workshop 1

Shannon Baker-Davis ACE is an award-winning television and film editor, who began her career in New York, editing

unscripted shows and documentaries. After 10 years working on many iconic and Emmy-winning shows such as Top Chef and Project Runway, Shannon began adding narrative television and feature films to her resume. Her credits include Insecure from Issa Rae, Grownish from creator Kenya Barris and and Queen Sugar from creator Ava DuVernay. She has many other features under her belt over a period of years. Shannon reunited with Stella Meghieon The Photograph, starring Issa Rae and LaKeith Stanfield, and then went on to cut the Netflix series #blackaf, created by Kenya Barris and stars Barris and Rashida Jones. Her latest work is Impeachment: American Crime Story for Ryan Murphy Television.

Leah Pears is an Actor, Producer, and Podcast/Youtube Channel Host. She began her career in banking with emphasis in real estate and mortgage lending. After securing the role as the Professional Woman in Traffik, a Feature Film directed by Deon Taylor, she knew that her next career would be in entertainment. She took acting classes and worked in local theaters and got roles in commercials and independent films where her stage name is Marie FInch. Leah moved to Los Angeles and used her finance experience to produce her first short film "Month to Month" that won a Critic's Choice Award at the Iowa Independent Film Festival in 2020. Currently, she is producing a short film "Mistaken" that will be shown in film festivals 2024. She can be seen as the Teacher in the horror film Twisted and Captain Terry in Sci-Fi feature film Ultra Red. Students learned how taking a leap to follow your passion can lead you on an unexpected journey.

Arts Workshop 2

Kristin Ford is the Co-Founder and Director of Media for Creative Branding Agency–Ten X Talent Inc. Kristin has vast experience in entertainment journalism, branding, and partnerships. She worked for Nike Inc. as the Digital and Sportswear Lead; product/brand development, media tracking, crisis management, social media handling, event production. While with Nike Inc. Kristin worked first hand with FLOTUS, Michelle Obama, styling team for the 2013 "Let's Move" campaign. Kristin also emceed for special launch events where she interviewed celebrities such as, Skylar Diggins (WNBA) and Elena Delle D. Kristin received her B.S. in Public Relations from Eastern Illinois University. Kristin says her motivation for working hard is to break barriers and become a gateway for future leaders no matter what industry they chose. Kristin is a dynamic and shared great info on the media business.

Sarah Meyer is a professor and a program coordinator of Visual Communication Design at California Poly Pomona (CPP), and program lead for the CPP STEAM Academy, whose mission is to connect students across the community, collaborate with CPP and its industrial partners, and create knowledge through team-based, hands-on projects and online courseware. Sarah serves on the board of the National Council of Art Administrators (NCAA) and the presidential board of the United Designs Alliance (UDA), an international organization whose mission is to encourage the next generation of design voices "through shared creativity without prejudice against color, convention, culture, economy, education, history, nationality, race, religion, sex, skill set, or social status."




Math Workshop 1

Billy Almon is an Astrobiofuturist and nature-based inventor. All I wanted to be when I grew up was an inventor. Why? Because that's who my superheroes were. Growing up as an Army brat, it wasn't hard making friends, but it was hard keeping them when you have to move every two years. So my constant friends and companions became the comic book and movie heroes I discovered moving from place to place. I eventually became an Imagineer and learned how to use storytelling and creativity to invent cool things, design immersive experiences, and dream up new worlds. After a few years, I found myself at Howard University studying architecture, learning how to be a designer. While I was there, I entered a design competition at Walt Disney Imagineering, where my design led to me being offered an internship and then a job. Students that attended this workshop learned how to reimagine their dreams into reality.


Disney Imagineers: Billy Almon & Lanny Smoot with AKA Tanya Holmes

Math Workshop 2

Bri Kennerson is a transformational change leader with over 25 years of extensive management experience in a Fortune 50 company. Her expertise is in building strategies and programs focused on improving customer experience, sales, risk management resulting in loyal employees & customers which positively impact revenue, risk management and operational priorities. She has proven abilities in design and delivery of extraordinarily complex national programs, collaborating with cross functional teams, and working in a fast-paced matrix managed environment. Bri holds a Bachelor of Science, Business Management from the UNIVERSITY OF PHOENIX. She is a graduate of the Wells Fargo "Trailblazer" Management Program. Bri's hometown is Pasadena, CA. Her professional passion is to coach and guide women to develop and advance their careers. Students that attended this workshop learned the value of a dollar.


Carla Flagg, AIA, NOMAC, NCARB is a Construction Administrator at HMC Architects. Carla Flagg is a licensed Architect within the state of California with over 20 years of experience working with commercial/retail, institution, and housing projects. She received her Bachelor of Architecture and Environmental Design from California Polytechnic State University, San Luis Obispo. Throughout her career, Carla has been an advocate for diversity, inclusion and equity working with organizations such as the National Organization of Minority Architects (NOMA); starting as a Student

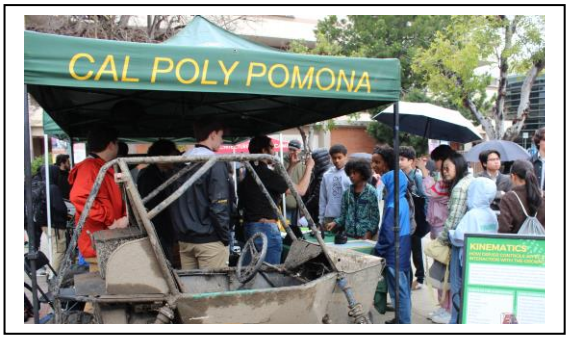
Chapter President, working with local the Southern California Chapter and National NOMA Board of Directors and now a member of the elite NOMA Council. Every building is designed with geometrical precision. Learn how Math is critical to successful design & building.

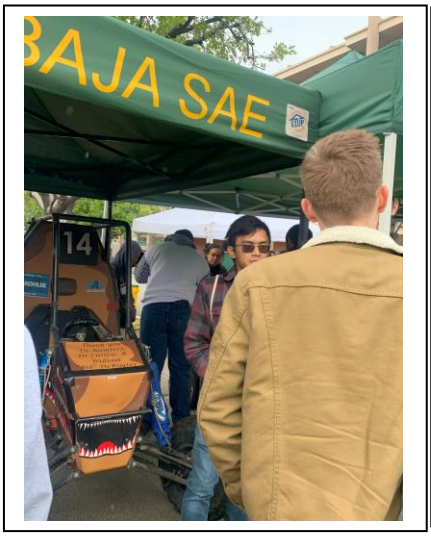
Capt. William Lee Daniels – United Airlines Pilot (Ret.) - As a commercial pilot for United Airlines, it's easy for Capt. Willie Lee Daniels to see the 30,000-foot view, and not just out his front window. With pilot retirements climbing every year and fewer and fewer young people joining the industry, Capt. Daniels in 1999 founded the non-profit educational organization "Shades of Blue". "My goal is for young people to see astronauts and others who have had amazing careers -- and amazing lives -- because of their success in aerospace and aviation," Capt. Daniels says. "If young people see that type of success, hopefully they will want to choose a similar career path." Capt. Daniels earned his associate's degree in commercial piloting from Mt. San Antonio College in and his bachelor's degree in Business Administration and Management from Metropolitan State University of Denver. **"Our Shades of Blue"** provides academic support to students interested in science, technology, engineering and math fields and helps to foster their careers in aviation, aerospace and engineering. Through his group's efforts, Capt. Daniels is aiming to feed 250,000 new pilots, engineers and astronauts into the industry pipeline.

Hands-On/ Interactive Activities

Cal Poly Pomona: Bronco Motorsports CPP Formula SAE is a collegiate design competition providing University students with the challenge to conceive, design, fabricate and compete with a small formula-style racing car. SAE (Society of Automotive Engineers) sanctions FSAE through specific rules and regulations that encourage students to test their knowledge, utilize their creativity, and implement innovation. Cal Poly Pomona has their Formula SAE car on display. They discussed how they have studied the dynamics of multiple Engineering areas to build a Formula Race Car and win competitions. Students also had the opportunity to sit in the car to get a full experience.

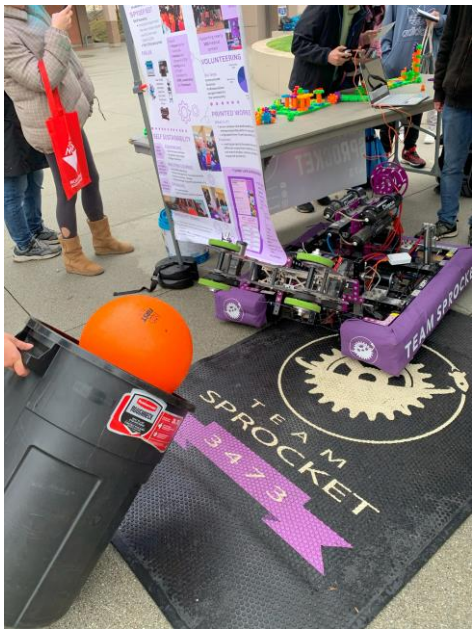
Cal Poly Pomona: Cal Poly Pomona: Baja SAE is a collegiate design competition providing University students with the challenge to conceive, design, fabricate and compete with a small Baja racing car. SAE (Society of Automotive Engineers) sanctions BSAE through specific rules and regulations that encourage students to test their knowledge, utilize their creativity, and implement innovation. Cal Poly Pomona had their Baja SAE car on display. They discussed how they have studied the dynamics of multiple Engineering areas to build a Baja Race Car and win competitions.





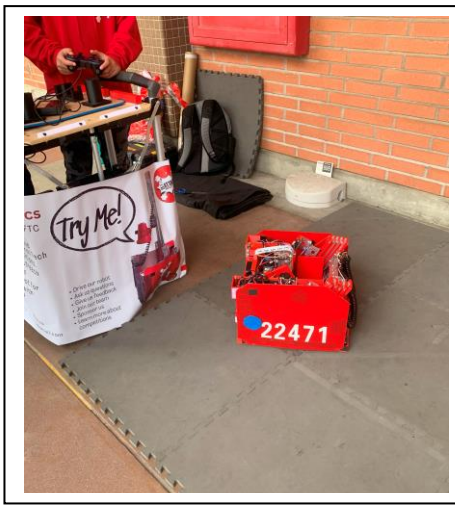
Cal Poly Pomona: Rose Float Team has a learning by doing ethos that is exemplified in all facets of the float program, as students from throughout all six of the polytechnic university's colleges get hands-on experience welding, metal shaping, machining, foam carving, woodworking, painting and flower harvesting —ultimately competing against professional **float** builders with corporate sponsorships. This presentation showed students the planning and engineering that goes into making a float.

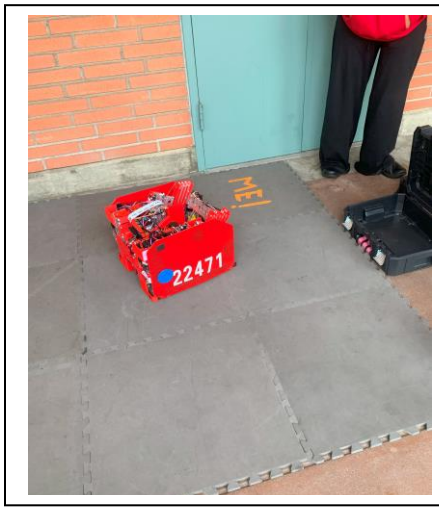
Diamond Bar High School Robotics Team "Team Sprocket" is an aspiring robotics team from Diamond Bar High School in Los Angeles, California. Team Sprocket is a quickly advancing team that is making a difference in the school, community, and broader society. Since their debut in 2011, their team has taken the necessary steps to create unique opportunities for our dedicated members. They also support STEM in the community and form connections with sponsors to spread the reach of FIRST Robotics and the importance of STEM in the modern world. They demonstrated their robot that had the ability to pick up the ball and toss it into the "basket."



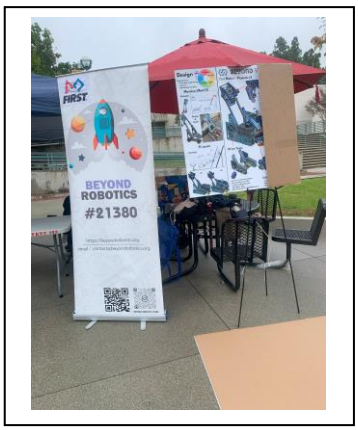
Pasadena High School Robotics Club IFC consists of two teams that design, build, and program their robots from scratch. They also have other jobs for people who are less interested in robotics.

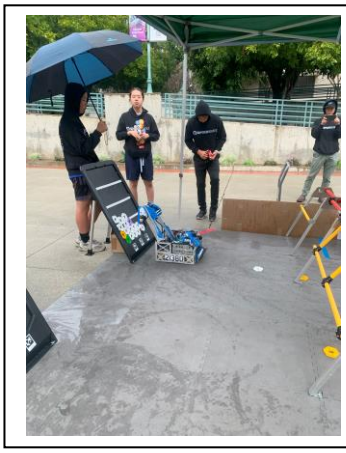
Tech-Attack Robotics is a rookie robotics team consisting of six middle school students from grades 6th to 8th. They design, build, and program their robots to attend First Tech Challenge Robotics competitions and host community outreach events to inspire children in Robotics. Robotics team from Walnut CA. Team Tech ATTACK
is composed of 6 middle school students. This year is our second year in robotics. We built and programmed a robot to compete in FTC (First Tech Challenge). Last season, we were first place in our interleague and got the Design award in the qualifiers tournament.

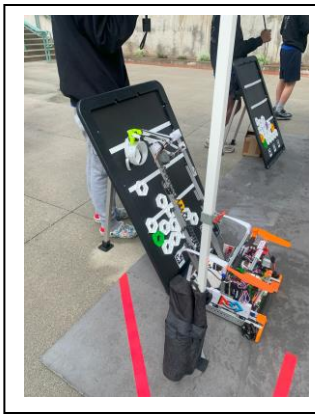




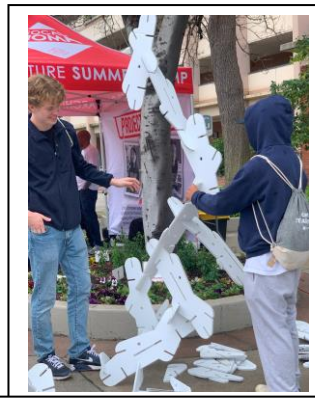
Beyond Robotics -Beyond Robotics, is a community team based in San Gabriel Valley and is currently competing in FTC (FIRST Tech Challenge). FTC is a globally recognized robotics competition for students. Last year, we won the Winning Alliance Captain and Motivate award in the SoCal ILT 4 competition, allowing us to reach the SoCal Championships, where we won the Finalist Alliance Captain and 3rd Place Control award. This makes us 2nd place overall in Southern California.







SoCal NOMA Camp: SoCal NOMA seeks to advance and support the education and careers of those who have been historically under-represented in the field of architecture and various allied design/build professions. The Architecture Summer Camp is a 4 Day camp for youth aged 10 – 18. The camp is designed to expose youth to the built environment and architectural profession. As one of the few initiatives in the nation connecting youth and architecture, the camp introduces youth to the people, professions, and ideas that make up the architecture and design profession. Youth are introduced to the practical essential elements of architecture to promote a potential career and vocation in the field.



Networking and Program Close

As we brought the program to a close, we honored Lanny Smoot for being The Walt Disney Company's Most Prolific Inventor and One of the Most Prolific Black Inventors in American History

We also honored Diamond Bar Team Sprocket for being **"The *FIRST* Impact Award Winner of the 2024 Los Angeles FRC Regional"**

The *FIRST* Impact Award (formerly Chairman's Award) is the most prestigious award at *FIRST*, it honors the team that best represents a model for other teams to emulate and best embodies the mission of *FIRST*. It was created to keep the central focus of *FIRST* Robotics

Competition on the ultimate goal of transforming the culture in ways that will inspire greater levels of respect and honor for science and technology, as well as encouraging more of today's youth to become science and technology leaders."

Thanked Team Sprocket for the donation of 18 3D Printers that where we raffled 10 printers throughout the event and donated 8 printers to event supporting organizations.