

## COMMUNITY AND OUTREACH ACTIVITIES

As part of our motto, *To Learn, To Share, To Innovate, and To Inspire*, Team Inspiration constantly strives to share STEM with the next generation, and in doing so, we have found that some of the best learning comes through teaching.

Within the local community, we actively mentor rookie FIRST robotics teams, teach robotics camps, showcase our robots at a variety of local events, including the San Diego SeaPerch competition. We reach out to youngsters at science museums and all major San Diego STEM fairs, including the Miramar Air Show (Fig.1). During the summer time, we conduct week-long summer robotics workshops in partnership with the UrbanLife Ministries and the University of San Diego STEAM Academy (Fig. 2), extending our reach to underrepresented and underprivileged students.



Fig. 1. Team Inspiration outreach at the Miramar Air Show.



Fig. 2. Team Inspiration outreach with the UrbanLife Ministries (left) and University of San Diego STEAM Academy (right).

Our team's participation in RoboBoat, RoboSub, and RobotX has drawn many middle and high school students not only in San Diego but also in Northern California, Florida, and even France to engage in robotics competitions. At the 2024 RoboBoat competition in Sarasota, Florida, our team inspired a local 8th grader to join our team. He worked with the team remotely from Florida in the spring and then in person in San Diego to lead our young RoboSub team in achieving 5th overall! Two of our new RoboSub team members are now competing in RobotX.

In addition, our participation in RoboSub inspired a local FIRST Lego League robotics team of middle school students to visit our lab and see live demos of our RoboSub's vehicle. The students got to learn the basics of underwater robots and constructed and drove SeaPerch robots they put together. (Fig. 3).



Fig. 3. Demo of our RoboSub's vehicle (left) and students building a SeaPerch robot (right).

Besides encouraging students to pursue STEM education, our team also participates in professional conferences such as the Navy Gold Coast Small Business Procurement Expo and OCEANS to share our journey in autonomous robotics competitions with the aim of encouraging companies to support future engineers through financial assistance, mentorship, and internship opportunities.

Beyond our local community, we extend our knowledge to the broader, global community. Actively coaching teams in

Benin, Togo, Eswatini, Haiti, Paraguay, and Ecuador, our team members connect with coaches from abroad and work to create a moving robotics experience for students. This year, our team members were able to reach a wider audience and were recognized at a speakership opportunity with the Embassy of Eswatini.

Within the last year, our team members have surpassed a total of 590 hours spent on outreach and volunteering. Focusing on students who have had less resources and/or lack of access to high-quality instruction and mentorship, we work to share our experiences, teach students about engineering fundamentals, and inspire students to further pursue education, especially in STEM. (Fig. 4).



Fig. 4. Team Inspiration outreach at the San Diego SeaPerch competition.