

The Orange Coast College (OCC) Stem Club is honored to have this opportunity to present at the April session of the ISA Orange County Section. On Behalf of the OCC STEM Club, I would like to thank the ISA OC Section for their continuous support. The OCC STEM Club mission is to empower students by giving them the tools they need to explore their curiosity, network, and gain valuable experience in the fields of Science, Technology, Engineering, and Mathematics (STEM Careers).

STEM Club activities include the OCC Robotics Competition Team, currently competing in VEX U Regional Tournaments against school like USC, & CSUN. The tournament rules and game objectives change yearly and the game requires mechanical dexterity and finesse, reliability and serviceability in the design. These experiences give the student insight into how theory learned in college courses is applied to solve problems in the real world. This is especially exciting and “FUN” for engineering students integrating skills from across engineering disciplines: mechanical, electrical, electronic, & programming to deliver solutions. We also learn project management and leadership skills for which, we have little or no training: logistics and transportation, proposals requesting permission and funding to a bureaucratic organization, coordinating the efforts of system design, sub-assemblies, varied schedules, and a volunteer workforce.

Testing the robots in a regulation playing field has made it especially hard for the team to compete in the current tournament format. The playing field is approximately \$1,500 and between the costs of registration, transportation, parts and fuel costs there was not enough money left in the budget to purchase an official playing field. The programmers preparing for the fully autonomous phase of the competition have been especially caught at a disadvantage. Nevertheless, we persevere and thus far have continuously improved the overall team score over the season and currently ranked as “Serious Contenders and a “Threat” wining against teams with much better resources.

The sponsorship of the ISA brought the team many much needed resources especially parts, registration fees, and mentors. The mentors helped with mechanical design, programming techniques, and project management, we would especially like to thank the ISA OC Section and Steve Curry for their support.

The OCC Robotics Team is striving for rankings that will qualify them for the World Championships in April in Kentucky. The two robots: The Black Pearl and the Flying Dutchman will be making a tour of the High Schools in Orange County along with “Pete the Pirate” the android version of the OCC Mascot. They will also appear at the <http://vitallinkoc.org/> STEM Showcase and Mini-Maker Faire at the OC Fairgrounds April 15-17.

If any ISA member would like more information or to have the OCC Robotics Team visit a school site, or to visit the team at OCC please contact:

Kit Kerames OCC STEM Club President at Kit@occstemclub.com 203-216-6881

Professor Castaño at rcastano@occ.cccd.edu (714) 432-5745. OCC STEM Club meets on Friday noon – 6pm at OCC in the Tech Center room 226. Orange Coast College 2701 Fairview Road.

Website: occstemclub.com

Facebook page: <https://www.facebook.com/OCCSTEMClub/>