

Sea Air and Land Challenge

With the goal of inspiring high school students to consider engineering and other STEM careers, the Sea Air and Land Challenge is an introduction to engineering through the use of robotics. This STEM initiative provides opportunities for students to tackle a tough engineering task while in high school and to learn about some of the tremendous technical careers available to them. It also helps administrators and educators implement a successful STEM program in their schools, even given time, resource or budget constraints. Some advantages of this program are its focus on the engineering design process, accessibility (web-based, lower cost, 1-2 hour driving distance from school), innovation-driven open-sourcing and optional no-cost curriculum.

This STEM initiative was started at Penn State's Electro-Optics Center located in Freeport, PA, approximately 30 minutes northeast of Pittsburgh, as a response to the need for engineers and has grown to seven states. Nicknamed the SeAL Challenge, the students choose between designing and building a submersible for piloting underwater in the Sea Challenge mission, a drone for flying in the Air Challenge mission or a rover to drive in the Land Challenge mission.

After a slowdown due to the pandemic, there was a wonderful response to the program this past spring and we are looking to grow this coming school year. The program, completing a grant by the Office of Naval Research for program refinement and the development of the website (<https://seaairland.psu.edu/>) and curriculum, we are looking for sponsors, both in the Pittsburgh area and nationally. In addition, if you are interested in hosting a regional Challenge, mentoring a team or judging, please email us. The Challenge is on!

Note: We will hold an online presentation on July 19: <https://events.vtools.ieee.org/m/317253>

Thank you-

John Mazurowski, Chair

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