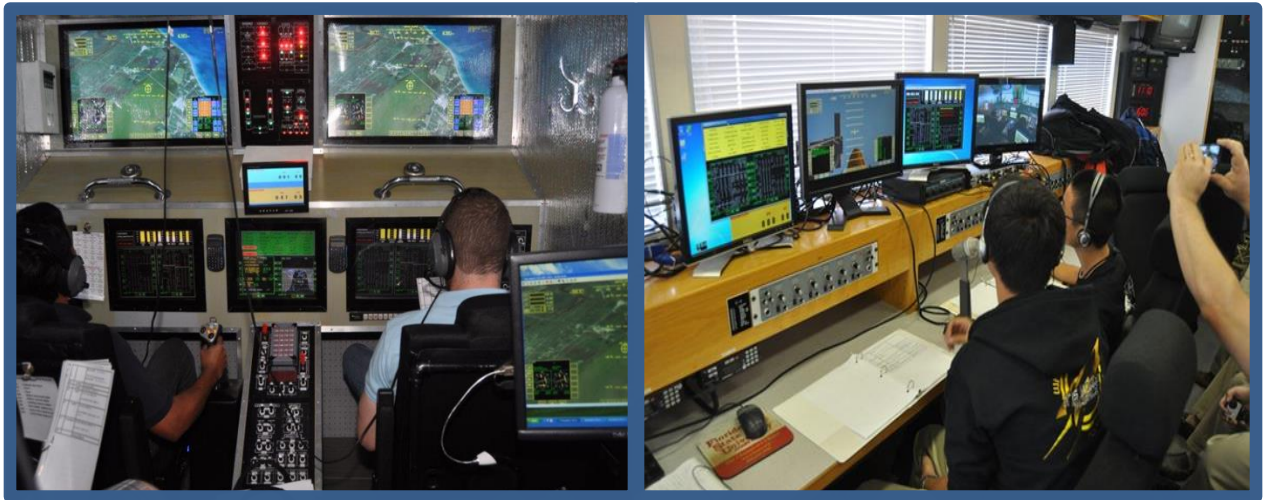


Student Astronaut Challenge

In education, a foundational part of learning involves group or collaborative work regardless of the subject area. Positive group experiences can significantly contribute to the process of conceptual understanding, learning, and academic success regardless of the ethnic or socio-economic background of the students. Learning and working as a group is essential for preparing students for both the academic and professional world they will eventually enter.

The Student Astronaut Challenge is an aero-space based competition sponsored by Florida State University and presented with cooperation from NASA and the Kennedy Space Center. The focus of the competition is the mobile Space Flight Simulator which was designed to replicate the retired NASA Space Shuttle.



The space simulator was designed by FSU to use virtual immersion to help interest students in Science, Technology, Engineering and Math (STEM); improve problem solving; provide for team building and demonstrate the practical application of math and science. The simulator was developed and constructed by teachers and based off of an inexpensive classroom based system designed by the FSU staff. The classroom system can be easily replicated by any school regardless of academic and financial resources. It is this system, that operates using free software from the Astronaut challenge, that is used by students to train for the competition.



For the last six years, up to 200 Middle and High school students' each year have converged at the Kennedy Space Center in February to compete in the Astronaut Challenge. Teams from as far south as Miami to as far north as Savannah, Georgia have traveled to Titusville to see who has the right stuff. In 2015 and 2017 guest teams from Dublin, Ireland traveled to the Kennedy Space Center to compete in the competition.

The Competition

Event one consists of an engineering challenge where students are provided an aero-spaced based system flight operation related problem. Working together as a team, they are required to devise and present a procedure for solving the problem to a board of NASA engineers and scientists.



Event Two is the presentation of an original experimental proposal that could be performed on the International Space Station on a provided topic. The lab proposal is then presented to a board of NASA scientists.

Event Three consists of three rounds (including a semi-final and final) where teams are required to perform the pre-flight operation, launch, orbit and landing of the Space Shuttle flight simulator and the operation and responsibilities of the mission control team. During the semi-final and final rounds, students are provided with in-flight emergencies that must be managed to safely complete their mission.



Event Four consists of two rounds (including run-offs and finals) where two team members are required to perform a landing of the Space Shuttle flight simulator and the operation and responsibilities of the mission control team.



How can I help support these students?

The all-volunteer staff of the Student Astronaut Challenge is continually looking for educational partners and sponsors to support the challenge and help this worthwhile program grow. If you are interested feel free to

- Visit our program web site: astronautchallenge.com
- Visit our competition web site: studentastronautchallenge.com
- Watch a brief video: <https://www.youtube.com/watch?v=A9AfHkMNZEK>

or contact our staff to see if you can help change a student's life and support their interest in science, math, technology and engineering.

Contact Information

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Donation Needs

Each year the Student astronaut challenge reaches out for donor support to ensure that all schools, regardless of ability to pay, can participate in the Astronaut Challenge. The following list is the areas where groups, organizations or individuals can help support this worthwhile program.

Event Sponsorships Available

Middle School

- Middle school luncheon \$2,500.00
- Middle school competition awards \$ 500.00
- Middle school team shirts \$ 1,000.00
- Middle school Kennedy Space Center tickets \$ 5,000.00
- MS Engineering Challenge sponsorship \$ 1,000.00
- MS Space Flight Simulator sponsorship \$ 1,000.00
- MS Lab Challenge sponsorship \$ 1,000.00
- MS Landing Challenge sponsorship \$ 500.00

High school

- High school luncheon \$2,500.00
- High school competition awards \$ 500.00
- High school team shirts \$ 1,000.00
- High school Kennedy Space Center tickets \$ 5,000.00
- HS Engineering Challenge sponsorship \$ 1,000.00
- HS Space Flight Simulator sponsorship \$ 1,000.00
- HS Lab Challenge sponsorship \$ 1,000.00
- HS Landing Challenge sponsorship \$ 500.00

Additional

- Team adoption for registration and travel support \$ 1,000.00 per team
- Overall High school competition winner school STEM Award \$ 1,000.00*
- Overall Middle School competition winner school STEM Award \$ 1,000.00*

* These funds are given to the overall winners' school to support STEM development.