



The Student Astronaut Challenge is an annual Science, Technology, Engineering, and Math (STEM) competition for teams of middle and high school students 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 competition involves a regional exam, after which teams are chosen as finalists. Finalist teams train for several months of the school year with a teacher/coach to compete in four different events.

1. **Space Flight Simulation Challenge:** 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 Enterprise 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.
2. **Engineering Challenge:** a hands-on challenge where students are provided an aerospace related problem. Working as two teams – mission control and Skylab flight crew - they are required to use teamwork and collaboration to solve a series of challenges and reach a solution.
3. **Design Challenge** (previously known as the Lab Challenge): a physical design challenge to solve a specific space-related issue. Teams submit a typed design proposal due approximately 2 weeks before the finals competition and present their solution, including a prototype model, to a team of judges during the competition.
4. **Landing Simulation Challenge:** two rounds (including run-offs and finals) where team members work in pairs to perform one of three types of landings of the Space Shuttle Enterprise flight simulator and the operation and responsibilities of the mission control team.
5. **Patch Design Challenge:** a design challenge to create a team flight patch related to a specific space-related theme. Teams will submit a color drawing of their patch along with a typed design description due approximately 2 weeks before the finals competition. The patch design will be judged based on NASA's mission flight patch criteria and its relevance to the theme.



The space simulator was designed by FSU to use virtual immersion to help interest students in (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, using free software available from the Student Astronaut Challenge, which is used by students to train for the competition.

In the competition's first year - 2012 - teams of five students representing high schools from all over the state of Florida met in Tallahassee for the finals competition. Since 2014, finals have been hosted at the Kennedy Space Center Visitor Complex. The competition continues to grow and in each of the past 6 years we have seen nearly 200 middle and high school students converge at Kennedy Space Center Visitor Complex in February to compete in multiple events over the course of three days. Teams from as far south as Miami to as far north as Atlanta, Georgia have traveled to Titusville to see who has the right stuff. In 2015, 2017 and 2019 guest teams from Edenderry, Ireland (near Dublin) traveled to the Kennedy Space Center to compete in the competition. In 2020, we hosted a middle school team from Seattle in the finals competition at the Kennedy Space Center.

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 competition website, studentastronautchallenge.com and follow us on social media, @studentastro on [twitter](https://twitter.com/studentastro), [facebook](https://www.facebook.com/studentastro), and [instagram](https://www.instagram.com/studentastro).

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You can also contact our director, Peter Carafano, PhD (studentastronautchallenge@yahoo.com) to see if you can help change a student's life and support their interest in science, math, technology and engineering.

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 Student Astronaut Challenge. The following list is the areas where groups, organizations or individuals can help support our student astronauts.

Donation Incentives:

Dependent on the level of donation, our team will work with you to provide some or all of the following recognition:

- social media thank you/shoutouts
- thank you note/photo from team(s)
- your logo on team shirts and promotional materials
- a profile on our website sponsor page
- your logo and name on engineering challenge simulator
- your logo and name on space flight simulator

Donation Opportunities Available:

Middle School or High School

• Luncheon	\$2,500.00
• Awards	\$ 500.00
• Team Shirts	\$1,000.00
• Kennedy Space Center tickets	\$5,000.00
• Engineering Challenge sponsorship	\$1,000.00
• Space Flight Simulator sponsorship	\$1,000.00
• Design Challenge sponsorship	\$1,000.00
• Landing Simulation 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*
• Simulator	\$50,000.00

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

Non-Monetary Sponsorship Opportunities Available

- Event Judges
- Guest Speakers
- Event Volunteers