



## WE BELIEVE SPACE INSPIRES POSSIBILITIES

When powerful STEM-based tools are paired with the backdrop of space, students unlock their creativity and gain the skills needed for future STEM careers through meaningful and authentic learning. The Aldrin Family Foundation's Student Satellites in Space (S-Cubed) program ignites students' passions in STEM and grows the workforce of the future. The two-year program is hosted in partnership with Twiggs Space Lab.

## YEAR 1 – DEVELOPING SKILLS, LEARNING CONTENT, SIMULATED SPACE MISSION

- 1 Students learn how to work safely in a laboratory while developing their kinesthetic hand-tool skills (e.g., soldering iron, multimeter).
- 2 Students examine and interact with the components of a satellite in flat configuration, learning science and engineering content foundational to their future careers.
- 3 Student teams conduct a simulated space mission by asking real research questions and launching satellite payloads on a highaltitude balloon (HAB). The payloads collect data while reaching the edge of space, then safely parachute back down to Earth's surface. Teams analyze mission data and present their findings to their community.

## YEAR 2 – CORE ENGINEERING SKILLS, PROGRAM CAPSTONE MISSION

- Students learn the Engineering Design Process and the Engineering Code of Ethics by analyzing real case studies.
- 2 Students examine and interact with an advanced model satellite to further refine their kinesthetic skills and STEM content knowledge.
- Students participate in research teams in a semester-long capstone project to address an engineering inquiry. Students select and implement satellite payloads, model the spacecraft qualifications process, and prepare for a critical design review in a final competition. *Space launch opportunities possible upon request.*





**IT'S A JOINT MISSION** as we partner with you throughout the program. You can count on us to:

- Provide hardware and materials
- Deliver standards-aligned curriculum designed for your class
- Offer industry experts to mentor students and evaluate designs
- Coordinate paperwork for launches
- Conduct teacher professional development
- Ongoing support, as needed

Ready to take your students on an out-of-this-world adventure?

For more information contact us at info@aldrinfoundation.org

