
Florida Space Grant Consortium (FSGC)

Notice of Funding Opportunity (NOFO)

2026-2027 Florida Aerospace Workforce Development Initiative

Undergraduate Student Projects in CubeSats, Balloon Payloads, Rocketry Payloads, and Space Systems Engineering

Maximum Award: \$5,000 (including indirect costs)

Proposal Deadline: September 30, 2026

1. Program Overview

The Florida Space Grant Consortium (FSGC) invites proposals from faculty at accredited Florida colleges and universities to support hands-on undergraduate student projects and training activities related to spaceflight systems, aerospace engineering, and space technology development. FSGC especially welcomes proposals from Florida State Colleges and Community Colleges that provide hands-on aerospace experiences for students who may subsequently transfer into four-year STEM degree programs or enter the aerospace workforce directly.

This program is intended to provide undergraduate students with authentic experiential learning opportunities through the design, development, testing, and operation of aerospace hardware and systems. Proposed activities may include, but are not limited to:

- CubeSat development and subsystem design
- CubeSat payload development
- High-altitude balloon payload development and flight campaigns
- Balloon payload training workshops
- Sounding rocket or rocketry payload development
- Student-built scientific instruments and sensors
- Flight electronics, avionics, communications, and software development
- Space systems engineering training
- Mission design and operations activities
- Aerospace hardware prototyping and testing
- Workforce development workshops focused on aerospace technologies

Projects must provide meaningful hands-on experiences for undergraduate students and contribute to preparing the future aerospace workforce in Florida.

The initiative seeks to:

- Increase undergraduate participation in aerospace research and engineering activities.
- Expand institutional capabilities in small satellite, balloon, rocket, and space technology development.
- Promote experiential learning through design-build-test-fly projects.

- Strengthen systems engineering and project management skills among students.
 - Foster collaborations among Florida institutions, industry partners, NASA centers, and government organizations.
 - Develop pathways toward future flight opportunities, internship placements, and externally funded projects.
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2. Funding Information

Award Amount

- Maximum award: \$5,000 per project, inclusive of indirect costs.
- Indirect costs are limited to 10% of the total award.

Project Period

- Up to one year in duration.
- Projects may begin no earlier than October 15, 2026.

Allowable Expenses

Funds may be used for:

- Materials, hardware, and supplies
- Components for CubeSat, balloon, or rocketry payload development
- Sensors, microcontrollers, communications equipment, and electronics
- Fabrication and prototyping expenses
- Testing and integration activities
- Student wages and stipends
- Training materials and educational resources
- Software licenses directly supporting the project
- Ground support equipment
- Modest travel related to project integration, testing, launches, or technical training activities

Student Support Requirements

Students receiving salary, stipend, or travel support from this award must be United States citizens.

Permanent residents are not eligible for direct financial support under this program.

Students participating in project activities but not receiving direct support from FSGC funds are not required to be U.S. citizens.

Unallowable Expenses

Funds may not be used for:

- Faculty salary support
- General-purpose equipment purchases
- Conference travel
- Publication costs unrelated to project objectives
- Entertainment or hospitality expenses

All expenditures must comply with FSGC, NASA, and institutional policies.

3. Eligibility

Proposals may be submitted by full-time faculty members at accredited Florida higher education institutions, including:

- Florida public universities
- Florida State Colleges and Community Colleges
- Private not-for-profit colleges and universities located in Florida

Faculty from engineering, engineering technology, computer science, physics, aerospace, mathematics, and other STEM disciplines are encouraged to apply.

Interdisciplinary and inter-institutional collaborations are strongly encouraged, including partnerships between:

- Universities and State Colleges
- Community Colleges and four-year institutions
- Academic institutions and aerospace industry partners
- Academic institutions and NASA centers, federal laboratories, or other government organizations

Projects must involve active participation by undergraduate students. For community colleges and state colleges without four-year degree programs, project teams may include students pursuing Associate of Arts (A.A.) or Associate of Science (A.S.) degrees. Special consideration will be given to projects that provide early exposure to aerospace and spaceflight systems for first- and second-year college students.

Preference will be given to projects that:

- Engage students from institutions that have limited access to aerospace research opportunities;
 - Create pathways for students to transfer into aerospace-related bachelor's degree programs;
 - Provide substantial hands-on experiences in aerospace hardware development, testing, mission operations, or systems engineering; and
 - Foster collaborations across multiple Florida educational institutions.
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4. Proposal Requirements

Proposals shall not exceed four pages, excluding the cover page and budget.

Submit a single PDF containing the following sections:

A. Project Summary

Provide a concise overview of the proposed project, including:

- Technical concept
- Student involvement
- Expected outcomes
- Relevance to aerospace workforce development

B. Objectives and Significance

Describe:

- The technical goals of the project

- Educational objectives
- Anticipated impact on student learning and workforce preparation
- Relevance to NASA, commercial space, aeronautics, or space-related industries

C. Technical Approach and Work Plan

Provide:

- Description of project activities
- Technical methodology
- Major milestones and deliverables
- Timeline for execution

Projects involving flight hardware should discuss plans for testing, verification, and readiness assessments.

D. Student Engagement Plan

Describe:

- Number of undergraduate students to be involved
- Student recruitment strategy
- Roles and responsibilities
- Training activities
- Leadership opportunities for students

Clearly identify:

- Students who have already been selected
- Students expected to receive direct financial support
- Student classifications (freshman, sophomore, junior, senior)

Strong proposals will demonstrate extensive student ownership of project activities.

E. Budget and Budget Justification

Provide an itemized budget with justification for all requested expenses.

For student support, include:

- Number of students
- Hourly wage or stipend
- Estimated hours worked

For travel requests, provide:

- Purpose
- Destination
- Number of travelers
- Cost estimates

Conference travel is not permitted under this program.

F. Sustainability and Future Plans

Describe how the project may lead to:

- Future flight opportunities
 - Follow-on research activities
 - New courses or academic programs
 - External funding proposals
 - NASA, industry, or government partnerships
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5. Review Criteria

Proposals will be evaluated based on the following criteria:

Technical Merit (30%)

- Quality of the technical concept
- Feasibility of project execution
- Appropriateness of proposed activities

Student Impact (35%)

- Number of undergraduate students engaged
- Quality of hands-on experiences
- Opportunities for student leadership and professional development
- Emphasis on early undergraduate participation

Workforce Development Value (20%)

- Relevance to aerospace workforce needs
- Development of engineering, technical, and systems engineering skills
- Preparation of students for aviation and space-sector careers

Future Potential (10%)

- Potential for future flight opportunities
- Likelihood of generating follow-on funding or partnerships

Budget Appropriateness (5%)

- Reasonableness of requested funds
 - Alignment between resources and project objectives
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6. Submission Instructions

Submit proposals as a single PDF file to:

Jaydeep Mukherjee

Florida Space Grant Consortium

Email: jaydeep.mukherjee@ucf.edu

The subject line should read:

"2026-2027 Florida Aerospace Workforce Development Initiative Proposal"

7. Final Report Requirements

A final report is required within 30 days of project completion.

The report shall include:

Project Outcomes

- Summary of activities completed
- Major accomplishments
- Technical results

Student Participation

Provide aggregate student demographics, including:

- Academic classification
- Gender
- Underrepresented groups (reported only in aggregate)

Technical Accomplishments

Describe:

- Hardware developed
- Payloads designed or tested
- Flight activities completed
- Data collected
- Lessons learned

Workforce Development Outcomes

Report on:

- Student skills gained
- Internships obtained
- Employment outcomes (if known)
- Follow-on project participation

Future Plans

Discuss future opportunities, partnerships, funding proposals, or flight activities.

Media and Outreach

Include:

- Photographs
- Videos
- Outreach materials
- Public presentations

All submitted media must be approved for FSGC outreach and reporting use.

8. Award Announcement

Awards are anticipated to be announced by October 15, 2026.

Projects may begin immediately following notification and completion of award documentation.

Priority Areas of Interest

Examples of responsive projects include:

- CubeSat bus development
- CubeSat payload development
- Space communications systems
- Earth observation payloads
- Remote sensing instruments
- High-altitude balloon science missions
- Atmospheric measurements
- Rocket-borne payloads
- Autonomous flight systems
- Flight software and embedded systems
- Additive manufacturing for aerospace hardware
- Space robotics
- Artificial intelligence applications for spacecraft and payload operations
- Systems engineering and mission operations training workshops

This funding opportunity is intended to cultivate Florida's future aerospace workforce through hands-on undergraduate participation in authentic spaceflight and aerospace engineering experiences.

2026-27 Florida Aerospace Workforce Development Initiative

Sponsored By FSGC

PROPOSAL COVER PAGE

Project Name: _____

Faculty PI: _____

Department/Institution: _____

Address: _____

Phone: _____ E-mail: _____

Budget Request: Note: A detailed budget justification is required.

Grant \$ _____

Matching Contribution \$ _____

Total Project Cost \$ _____

Please identify which NASA Mission Directorate is applicable to your project (check only one that is most appropriate):

☐ Science Mission Directorate (SMD)

☐ Space Operations Mission Directorate (SOMD)

☐ Space Exploration Development Mission Directorate (SEDO)

☐ Space Technology Mission Directorate (STMD)

☐ Aeronautics Mission Directorate (ARMD)

How many students will participate in your project? _____

Start Date: _____ Ending Date: _____

(Signature) Faculty PI / Date

(Signature) Department Head / Date

Name

Name

Title

Title

(Signature) Institute Official / Date

Name

Title

Appendix A. Strategic Framework for NASA

I. NASA Mission Directorates

NASA's Mission to pioneer the future in space exploration, scientific discovery, and aeronautics research, draws support from four Mission Directorates, each with a specific responsibility.

- Aeronautics Research Mission Directorate (ARMD): Research conducted by ARMD directly benefits today's air transportation system, the aviation industry, and the passengers and businesses who rely on aviation every day. ARMD scientists, engineers, programmers, test pilots, facilities managers and strategic planners are focused on aviation's future. They design, develop and test advanced technologies that will make aviation much more environmentally friendly, maintain safety in more crowded skies, and ultimately transform the way we fly. NASA's aeronautics research is primarily conducted at four NASA centers: Ames Research Center and Armstrong Flight Research Center in California, Glenn Research Center in Ohio, and Langley Research Center in Virginia (<https://www.nasa.gov/directorates/armd/>)
- The Science Mission Directorate (SMD) The Science Mission Directorate (SMD) is an organization where discoveries in one scientific discipline have a direct route to other areas of study. This flow is something extremely valuable and is rare in the scientific world. NASA Science missions circle the Earth, the Sun, the Moon, Mars, and many other destinations within our Solar System, including spacecraft that look out even further into our universe. (<https://science.nasa.gov/>)
- The Human Exploration and Operations (HEO)
Please note that NASA has organized its Human Exploration and Operations Mission Directorate into two areas: Exploration Systems Development (<https://www.nasa.gov/directorates/exploration-systems-development>) and Space Operations (<https://www.nasa.gov/directorates/space-operations-mission-directorate>).

The Exploration Systems Development Mission Directorate defines and manages systems development for programs critical to NASA's Artemis program and planning for NASA's Moon to Mars exploration approach. ESDMD manages the human exploration system development for lunar orbital, lunar surface, and Mars exploration.

The Space Operations Mission Directorate maintains a continuous human presence in space for the benefit of people on Earth. The programs within the directorate are the heart of NASA's humans space exploration efforts, enabling Artemis, commercial space, science, and other agency missions through communication, launch services, research capabilities, and crew support.

- Space Technology Mission Directorate (STMD). Technology drives exploration and the space economy. NASA's Space Technology Mission Directorate (STMD) aims to transform future missions while ensuring American leadership in aerospace. STMD develops, demonstrates, and transfers new space technologies that benefit NASA, commercial, and other government missions. <https://www.nasa.gov/space-technology-mission-directorate/>

Please visit each NASA organization website to find detailed information about current projects and current areas of interest.

II. NASA Research Areas of Interest

NASA research priorities are defined by the Mission Directorates—Aeronautics Research, Science, Human Exploration and Operations, and Space Technology. Each Mission Directorate covers a major area of the Agency's research and technology development efforts. Research priorities for each of the Mission Directorates can be found at the following locations:

Aeronautics Research Mission Directorate (ARMD)

Researchers responding to the ARMD should propose research that is aligned with one or more of the ARMD programs. Proposers are directed to the following:

- ARMD Programs: <https://www.nasa.gov/aeronautics/armd-solicitations/>

Science Mission Directorate (SMD)

Detailed information on SMD research priorities is available at the following URLs:

- NASA Science Strategy: <https://science.nasa.gov/about-us/science-strategy/>
- Web pages for scientists and engineers who plan to propose or have submitted a proposal to a research solicitation from the Science Mission Directorate. <https://science.nasa.gov/researchers>
- Funding Opportunities: Grant Solicitations <https://science.nasa.gov/researchers/sara/grant-solicitations>

Human Exploration and Operations (HEO) Mission Directorate

Please note that NASA has organized its Human Exploration and Operations Mission Directorate into two areas: Exploration Systems Development (<https://www.nasa.gov/directorates/exploration-systems-development>) and Space Operations (<https://www.nasa.gov/directorates/space-operations-mission-directorate>).

For exploration Systems Development programs, please go to <https://www.nasa.gov/directorates/exploration-systems-development> and scroll down to ESDMD Programs.

For Space Operations programs, please go to <https://www.nasa.gov/directorates/space-operations-mission-directorate> and scroll down to Areas of Focus.

Space Technology Mission Directorate (STMD)

For the Space Technology programs, please go to <https://www.nasa.gov/space-technology-mission-directorate/> and click on “Program and Initiatives”.

III. NASA’s Technology Transfer Program

NASA's Technology Transfer Program ensures that innovations developed for exploration and discovery are broadly available to the public, maximizing the benefit to the Nation.

<https://technology.nasa.gov/>

APPENDIX B

FSGC Affiliates

Universities and Colleges

Bethune-Cookman University (Dr. Masood Poorandi) (poorandm@cookman.edu)

Broward College (Dr. Rolando Branly) (rbranly@broward.edu)

Embry-Riddle Aeronautical University (Dr. Aroh Barjatya) (barjatya@erau.edu)

Eckerd College (Dr. Nazarré Merchant) (merchann@eckerd.edu)

Florida Atlantic University (Dr. Frederick Bloetscher) (fbloetsc@fau.edu)

Eastern Florida State College (Dr. Mevlut Guvendik) (guvendikm@easternflorida.edu)

Florida Gulf Coast University (Dr. Michael Fauerbach) (mfauerba@fgcu.edu)

Florida Institute of Technology (Ms. Donn Miller-Kermani) (dkermani@fit.edu)

Florida International University (Dr. Berrin Tansel) (tanselb@fiu.edu)

Florida Polytechnic University (Dr. Kais Jribi) (KJribi@floridapoly.edu)

Florida State University (Dr. Alan Hanstein) (alan.hanstein@challengertlh.com)

Florida A&M University (Dr. Charles Weatherford) (charles.weatherford@famc.edu)

Miami Dade College (Dr. Carlos Genatios) (cgenatio@mdc.edu)

St. Petersburg College (Dr. Paul Cutlip) (cutlip.paul@spcollege.edu)

University of Central Florida (Dr. Yunjun Xu) (Yunjun.Xu@ucf.edu)

University of Florida (Dr. Jamie Foster) (jfoster@ufl.edu)

University of Miami (Dr. Qingda Yang) (qdyang@miami.edu)

University of North Florida (Dr. Nirmal Patel) (npatel@unf.edu)

University of South Florida (Dr. Stephanie Carey) (scarey3@usf.edu)

University of West Florida (Dr. Amrita Gautam) (amishra1@uwf.edu)

Other Organizations

Astronauts Memorial Foundation (Mr. Thad Altman) (taltman@amfcse.org)

Kennedy Space Center (Ms. Patricia Gillis) (patricia.j.gillis@nasa.gov)

Orlando Science Center (Ms. Jill Goddard) (JGoddard@OSC.ORG)

Space Florida (Mr. Trevor Jones) (tjones@spaceflorida.gov)

SpaceTEC Partners, Inc (Mr. Steve Kane) (stevekane@spacetec.us)