

SPACE TEAMS ACADEMY

Prepare for your future in space



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Space Teams is an immersive virtual engineering experience covering all aspects of space mission design and execution

➤ **Engage**

- Students grow in knowledge while learning from astronauts and space engineers, while collaborating with peers

➤ **Inspire**

- Students enjoy rigorous and enriching activities while discovering the limitless possibilities in space exploration

➤ **Thrive**

- Students become fully prepared and empowered for future academic and career endeavors in STEM-related fields

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Program Overview

Led by Dr. Gregory Chamitoff, a former NASA Astronaut, Space Teams has been designed to give your students an incredible opportunity to become proficient in space mission engineering concepts.

The content of this program is split into two levels and runs as a once-per-week after school program or club, or in-class supplementary program, with each level (semester) providing 12 sessions of exciting content and activities.

Level 1

(Middle and High School Students)

- **Webcasts & Speakers**
Astronauts, Industry Experts and Special Guests.
- **Lessons & Tutorials**
Space science and engineering materials aligned with the Next Generation Science Standards (NGSS)
- **Space Mission Design Activities**
Team-based mission design guided by AI.
- **Virtual Reality Space Experiences**
High-fidelity physically & mathematically accurate space mission simulations.

Level 2

(High School Students)

- **Technical Workshops**
Learn how to use professional space-engineering tools to design space missions and simulations.
- **System Modeling & Simulation**
Gain experience modeling space vehicles, habitats, robotics, spaceflight systems and operations (CAD, Python, AI, algorithms).
- **Design Competition**
As a team, apply your new skills to create and execute a space mission simulation of your own design.

Inspire ▢ Engage ▢ Thrive

12 Weekly Webcasts

Speaker/VR Experience

Lesson/Teamwork/Design

Astronautics & Space Exploration

Planetary Science & Exoplanets

Spacecraft Systems & Operations

Spacecraft Design and Assembly

Deep Space Missions

Orbital Mechanics and Remote Sensing

Spacecraft Piloting

Atmospheric Entry, Descent and Landing

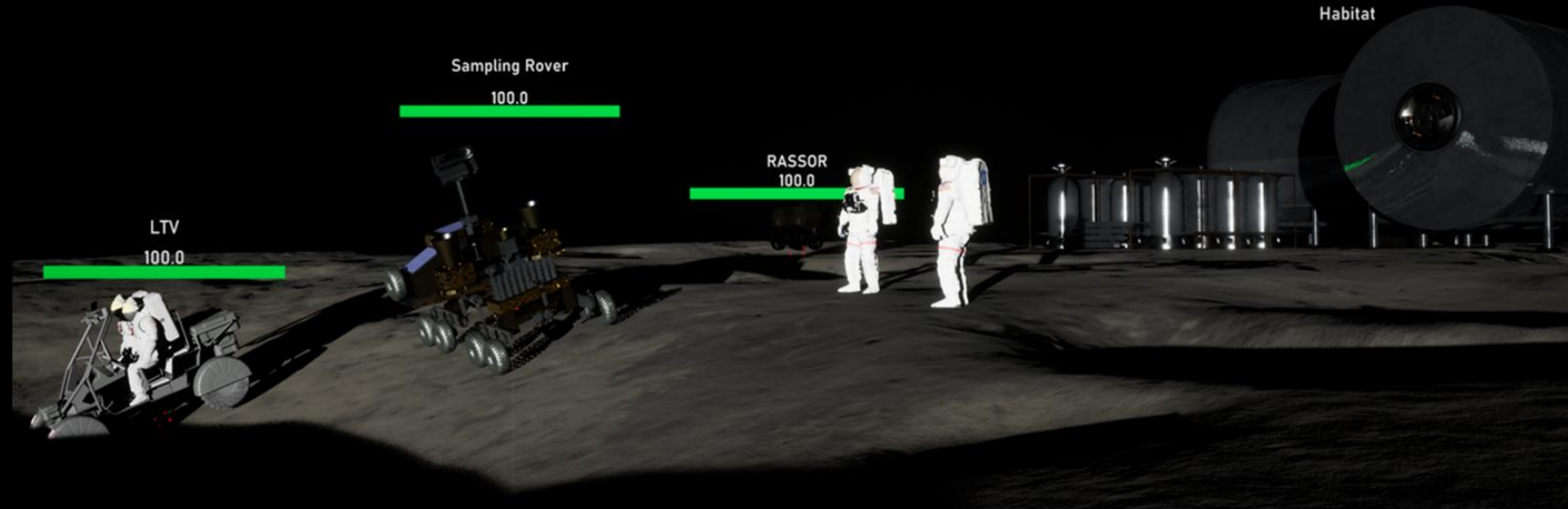
Extraterrestrial Architecture

Planetary Habitat Construction

Robotic Surface Operations

Resource Exploration & Sustainability

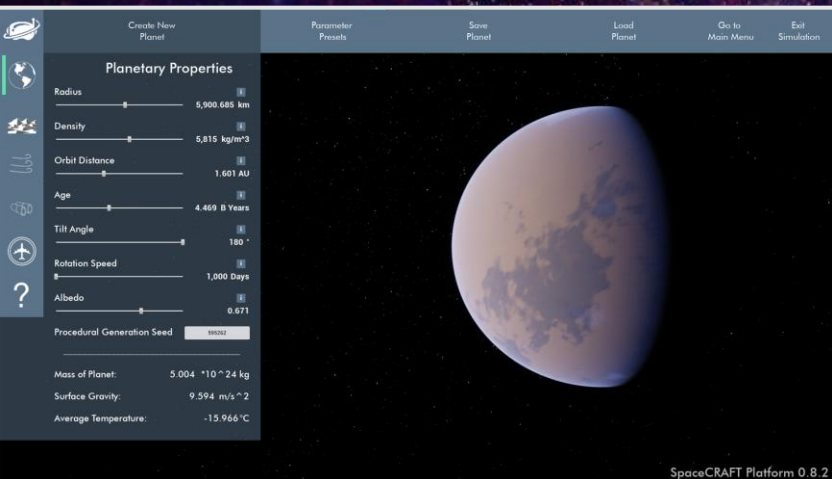
Level 1



Weekly Webcasts and Activities include a combination of...

- **Expert Speakers:** Prominent Scientists & Engineers from NASA and Industry
- **VR Experiences:** Immersive authentic mission tasks in the space environment
- **Lessons:** Science & engineering background and how to perform the activities
- **Design Activities:** Virtual team-based design with AI feedback

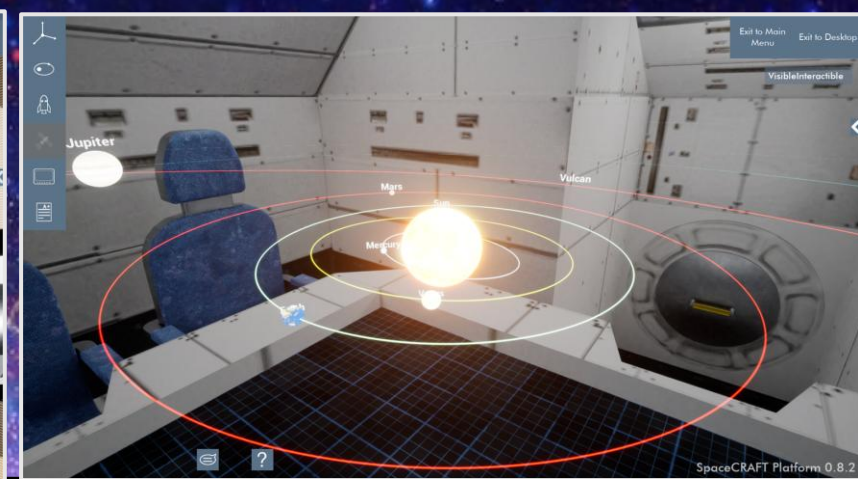
Space Teams Mission Design Activities



Planetary Science



Spacecraft Design



Orbital Mechanics



Entry, Descent & Landing

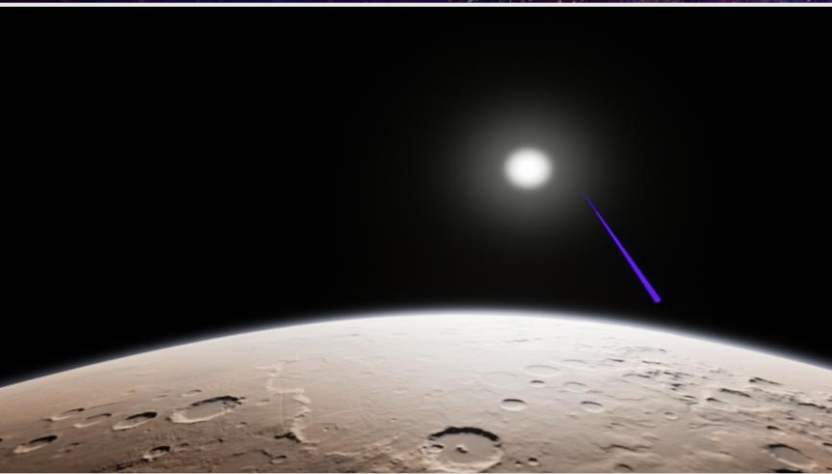


Extraterrestrial Habitats

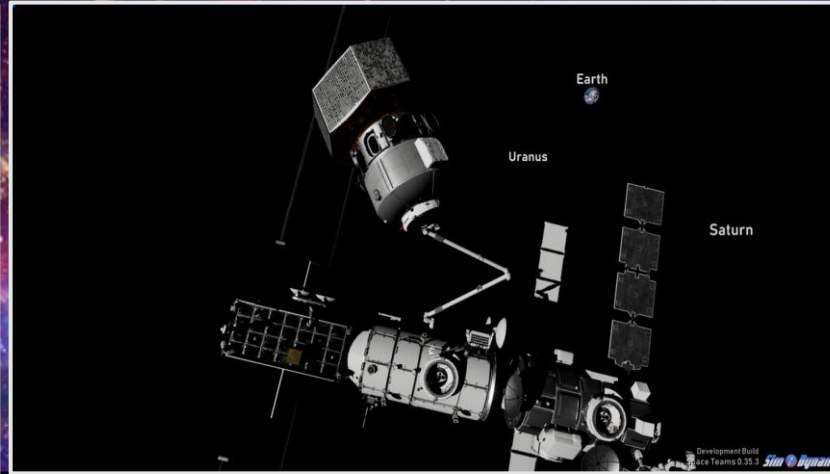


Surface Exploration

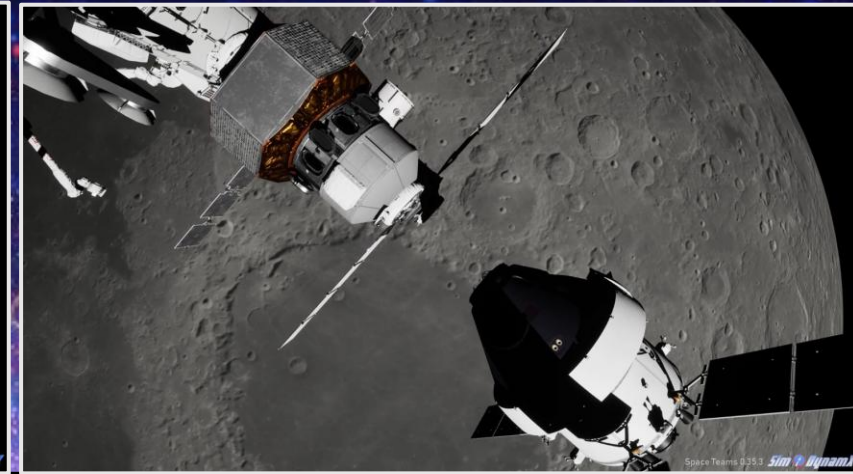
Space Teams VR Mission Experiences



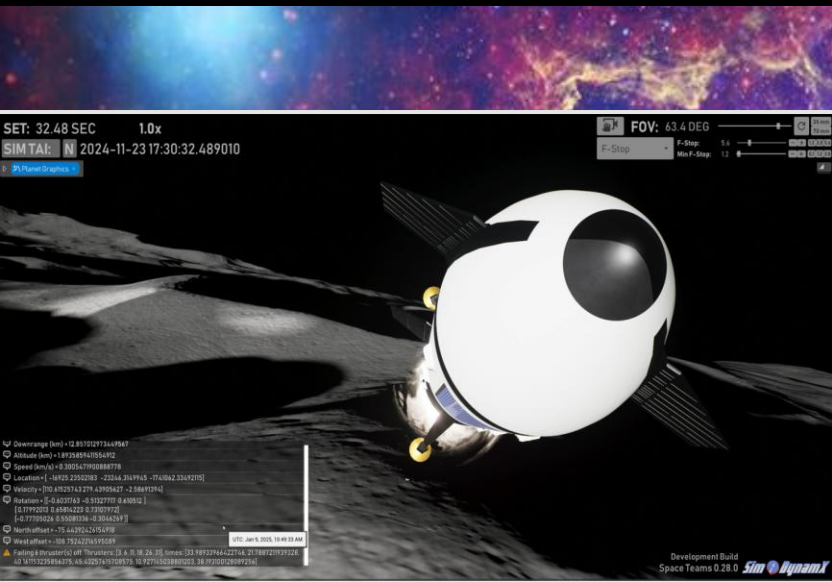
Solar System Explorer



Robotics Operations



Rendezvous & Docking



Lunar Lander



Deep Space Habitat



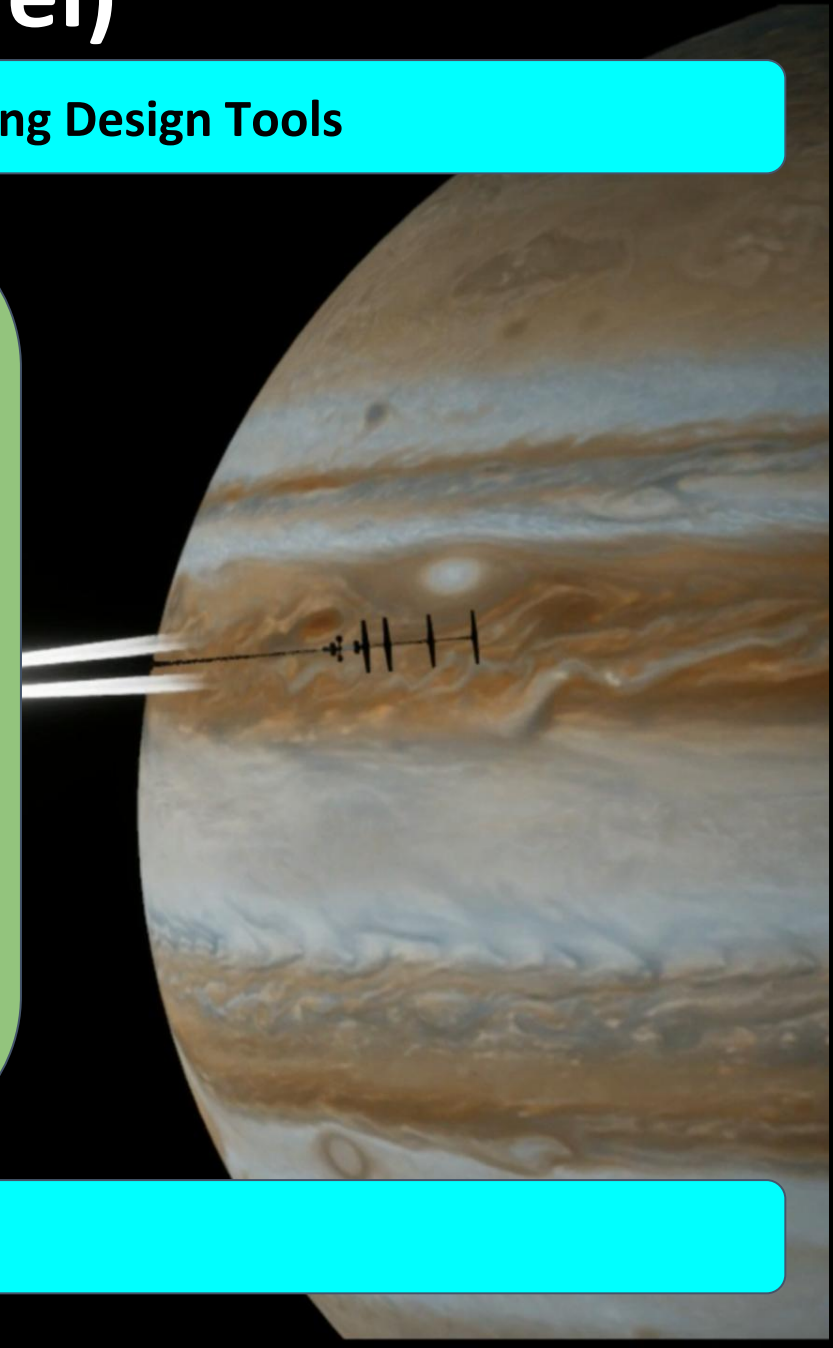
Surface Rover

Level 2 (High School Level)

12 Weekly Workshops - Learning to use Space Engineering Design Tools

- Intro to the Space Teams PRO Mission Design Platform
- Creating a Space Mission - System and Environment Models
- Entity Movement and Dynamic Behavior
- Importing Custom Models - Blender/CAD
- Space-Based Missions - Trajectory Design, Rendezvous, Landing
- Planetary Surface-Based Missions - Human/Robot Teaming
- Cameras, Commands and Sensor Data
- Complex Motion - Robots, Articulating Parts, Pointing, Tracking
- Programming Events & Behaviors - Python/C++
- Human-in-the-Loop VR Interaction
- Multi-User Simulations
- Interfaces with other Engineering Tools

Final Space Mission Design Competition



Core Elements of Space Teams

Design, Application, and Immersion - all in one program

- **Engineering Design Activities**

Space Teams activities inherently promote iterative design by guiding students through the Engineering Design Process, where decisions in one module—like spacecraft cargo capacity—directly impact others, such as habitat construction.

- **Lessons on Space Exploration Concepts**

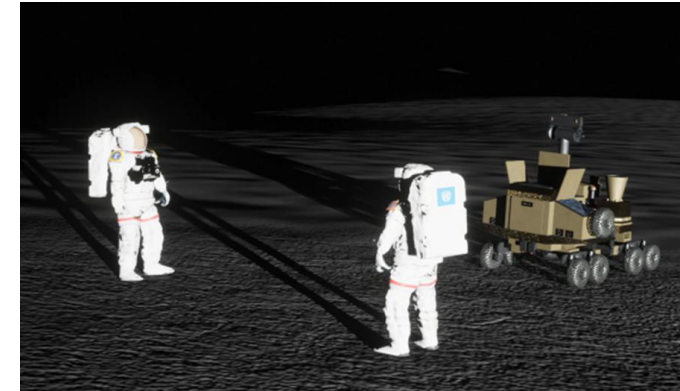
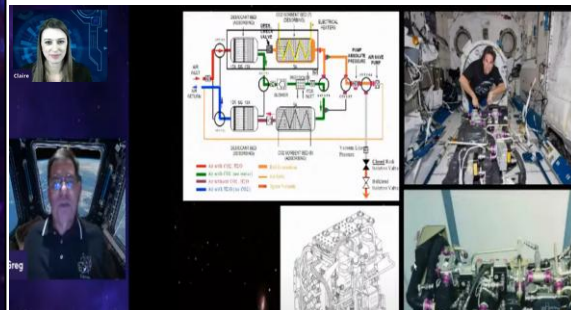
Space Teams exposes students to diverse STEM topics—from planetary science to robotics—while reinforcing transferable concepts like sustainability across multiple modules.

- **Real Industry Applications**

The Space Teams platform has been used in several space industry programs, including NASA projects, ongoing graduate research, industry applications, and education programs such as this one.

- **Unique Experiences**

- Built upon real space engineering software. As fun as it is, Space Teams is not a game. With accurate physics models of the solar system, and high-fidelity virtual reality models and graphics, it is the next best thing to actually being in space!
- Designed and executed by a team that includes space experts and STEM professionals.
- Team-based program for either in-person or remote online collaboration.
- Interaction with prominent space industry expert speakers
- Learn by doing approach to complex topics, which are accessible to middle and high school students because the material is taught visually and interactively.



SPACE TEAMS ACADEMY

Program Schedule

- Begins Feb (Level 1) and Sept (Level 1 & 2)
- 12 weeks
- Live webcasts weekly
- Recorded/accessible for all time zones

Prices

School/Museum/STEM Club/Organization Membership

- \$295 per semester - Up to 30 seats
- \$495 per semester - Up to 100 seats
- Renewal discount - 25%
- Covers setup, admin, ongoing tech support

Students

- \$75 each per semester (1-10)
- \$65 each per semester (11-25)
- \$50 each per semester (>25)
- Covers program and access to virtual machines



About Us

Space Team's Mission is to create a community of students and professionals designing and building humanity's future in space.

Based on real physics and mathematically accurate models trusted by NASA and used in the space industry, Space Teams provides the most comprehensive virtual simulation platform publicly available. Led by Dr. Gregory Chamitoff, a former NASA astronaut, we have served thousands of students through local, national and international STEM events, and our programs continue to grow.

Space Teams is brought to you by SimDynamX, engineering the future in space with exceptional simulation tools for professionals and STEM experiences for students.

Learn more at space-teams.com



Thank You

We look forward to launching Space Teams with you!



**SPACE TEAMS
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Learn more at space-teams.com
or contact us directly at
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