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StellarXplorers VIII National Finals Competition!

The StellarXplorers VIII National Finals are happening April 22! The top 10 teams will be putting their skills to the test to determine who the best team is!

Finalists will receive an all expense-paid trip to Houston, where they will tour Space Center Houston, space station and satellite design facilities. Teams will compete in orbital planning, satellite design, and launch design scenarios bringing together all the skills they learned throughout the competition year into one finals challenge.

Congratulations to the below 10 teams, and we wish you the best of luck at National Finals!



STELLARXPLOREERS VIII



National Finalists

Buena Park High School AFJROTC #1	Buena Park, CA
Buena Park High School AFJROTC #2	Buena Park, CA
California Academy of Math and Science #1	Carson, CA
Edmond North High School #1	Edmond, OK
North Allegheny High School AFJROTC #2	Pittsburgh, PA
Palos Verdes Peninsula High School #3	Rolling Hills Estates, CA
Pueblo County High School #1	Pueblo, CO
Red Mountain High School #2	Mesa, AZ
The Science Academy STEM Magnet #1	North Hollywood, CA
Valencia High School AFJROTC #1	Valencia, CA

Stellar Spotlight – NASA HUNCH

The HUNCH mission is to empower and inspire students through a Project Based Learning program where high school students learn 21st century skills and have the opportunity to launch their careers through the participation in the design and fabrication of real world valued products for NASA.



The HUNCH program welcomes any and all interested persons or organizations to get involved in encouraging student STEM involvement through NASA HUNCH programs, such as Design & Prototyping, Software, Hardware, Softgoods, Video & Media, and Culinary. We find that the Design & Prototyping program may be closest to the challenges you all face with StellarXplorers!

The Design and Prototyping HUNCH Program is a way for students of all skill levels to develop innovative solutions to problems posed by life on the International Space Station. Many of the projects are items personally requested by the International Space Station Crew to help ease living conditions aboard station, giving students the opportunity to really make an impact on the lives of Astronauts. Other projects come from Flight Crew Systems and Operational groups at NASA that need more idea development.

To find out more about how to get involved, you can visit [this page!](#)

Aerospace News

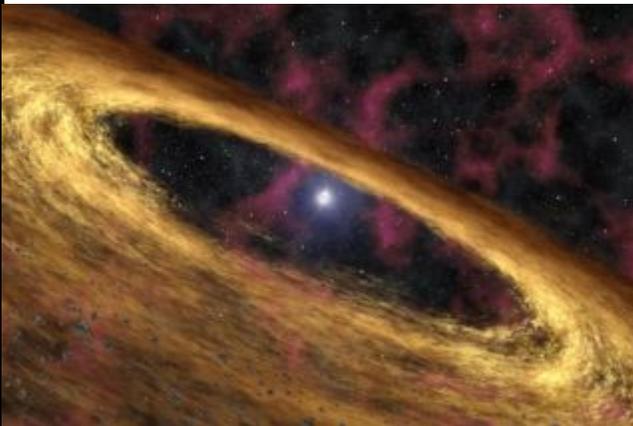
[Ax-1: Why the private mission to the ISS is a gamechanger](#)

The Ax-1 mission is planned for launch on April 6, using a SpaceX Dragon Endeavour spacecraft onboard a Falcon 9 rocket. The mission is planned to last ten days, eight of which will be on the ISS.

The mission by the US commercial aerospace company Axiom Space is a major step forward in private space travel, and is part of a plan to build a private space station. With Russia recently pulling out of collaborating on the ISS, the world will be watching to see whether the private sector can be trusted to provide reliable access to space for peaceful exploration. The Ax-1 mission is the first part of a plan by Axiom Space to produce the first private space station. This is no small feat; ISS itself had to be built in pieces, then sent up to be constructed in space.



[Rare "Black Widow" star system could help unlock the secrets of space-time](#)



In a new study published March 11 on the pre-print database arXiv, researchers describe this ill-fated binary star system – a rare class of celestial object known as a black widow pulsar. Just like the cannibal spider from which this type of system takes its name, the larger member of the pair seems intent on devouring and destroying its smaller companion.

By monitoring the larger star's remarkably steady pulses for sudden irregularities, the study authors hope this pulsar could help them detect rare ripples in the fabric of space-time known as gravitational waves.

"To detect gravitational waves, you need many, many very stable pulsars," van der Wateren said. "And unlike earlier black widow pulsars that have been discovered, this system is very stable."

[NASA Astronaut Mark Vande Hei reflects on record 355 days in Space](#)

Mark Vande Hei is happy having spent almost a year in space.

A NASA astronaut, Vande Hei returned from a 355-day stay on the International Space Station on March 30.

"I'm very happy to be back," said Vande Hei, replying to a question about whether he wished he had stayed just 10 days more to make it a full year in space. "It's just the opportunity to work with a really good sense of purpose in a job where we get to help out all of humanity. The number of days was not that important to me."



You can read more about his experiences [here!](#)

StellarXplorers Sponsors

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Space Careers

Propulsion Engineering

Propulsion Engineer Propulsion Engineers perform engineering duties in designing, constructing, and testing aircraft, missiles, and spacecraft. They conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture, and recommend improvements in testing equipment and techniques.



"I love my job as a propulsion engineer for spacecraft. My interest in space propulsion has taken me from a childhood on a farm in rural Washington to a dream job. I get to do everything in the whole life cycle of a spacecraft propulsion system starting with designing the system, then fixing manufacturing problems, and finally firing rockets in space." - Amy Cichan, Propulsion Subsystem Lead Engineer, LM Space

Aerospace Opportunities!

[Virtual Space in the Community](#) is a series of videos in association with leading companies and business partners with STEM resources for students and teachers alike!

They have some truly amazing interviews and videos, spanning topics such as career paths like Opto-Mechanical Engineering and Image Science and Satellite Imaging to topics about Mars Lander Design, Mars Habitat and Life Science!