

# **AUGUST 2023**

Happenings in this world and beyond...

# COMPETITION | STELLARCAMPS | SPONSOR NEWS | STEM RESOURCES | SPACE NEWS | JUST FOR FUN

# NATIONAL SPACE DESIGN COMPETITION

## **Registration Open for Technical Mentors**

StellarXplorers teams are typically led by teachers, but not all teachers feel equipped to prepare their students for the competition. Because of this, **many teams rely on technical mentors** (aka the space professionals) to help them prepare.

If you have a strong understanding of determining orbits, selecting satelite components, and/or choosing the optimal launch vehicle for a mission – you should consider being a mentor. The time commitment is up to the mentor, and the schedule agreed up on with the team director, and mentorship can be conducted virtually or in person.



**Registration is required for all new and returning mentors.** A background check will be requested of all individuals who register for this role.

Our goal is to provide a technical mentor to every team that requests assistance. <u>Click here for complete</u> <u>details and to register today</u>.

### STEM Program Overview Sessions in August



Know someone interested in StellarXplorers, but they'd like a little more information? Invite them to join us for one of two live information sessions to learn more about the StellarXplorers National Space Design Competition and how to get involved. Perfect for anyone interested in starting a team or volunteering as a technical mentor.

<u>Click here to register for Session 1</u>: Wednesday, August 9<sup>th</sup> @ 7:30 PM ET <u>Click here to register for Session 2</u>: Thursday, August 31<sup>st</sup> @ 7:30 PM ET

Both sessions will be recorded, and the recordings will be shared out afterwards with those registered for the session.

### STK Licenses Available for StellarXplorers X Teams

Thanks to the generous support of Ansys Government Initiatives (AGI), we're able to provide Systems Tool Kit (STK) software and licenses to StellarXplorers teams. Approved teams can follow the <u>STK License</u> <u>Instructions</u> to download **STK 12.5** and request licenses for the new season.



# Registration Open for StellarXplorers X





The registration form should be <u>completed by the team director</u> <u>only</u>. Registration for the 2023-2024 competition seaon is open now through October 17. Don't wait, register your team today!

Team directors are not required to have prior experience with the competition, nor do team directors need to have

experience with Systems Tool Kit (STK) or orbital mechanics to serve in the role. The competition focuses on the problem-solving side of space system design and less on advanced physics or equations.

<u>Click here</u> for information about the upcoming season, including dates, deadlines, and registration fees.

# Stay in the Know!



*Tweet us, like us, follow us, and share with StellarXplorers on your favorite platform!* We would love to share any stories about your team. Send them our way: <u>competition@stellarxplorers.org</u>.

# **STELLARCAMPS**

### 2023 StellarCamp Season is Coming to a Close

Organizations interested in hosting a space-focused summer camp still have time to <u>register to host a StellarCamp</u> at the end of this month (August 14-18 or 21-25). The full camp curriculum (20-hours / five 4-hour days) is available for a purchase price of \$300 per week. The host can choose to conduct the camp in-person or virtually during any of the remaining few weeks below. You must register for the week at least two weeks prior to the start date.



The camp material has been refreshed from last year. If you have questions about hosting, please contact info@stellarxplorers.org.

#### ICYMI...StellarCamp in the News!



The Wex Foundation and CyberTexas recently hosted a StellarCamp and made the local news. <u>Click to check</u> <u>out the story</u> to learn more about StellarCamps and hear from the lead camp instructor on the importance of hosting these events to cultivate the next generation of space professionals.

# **SPONSOR NEWS**

# General Atomics Sciences Education Foundation Joins as Newest AFA STEM Program Supporter

StellarXplorers is thrilled to announce its latest sponsor aiding the effort to inspire students to pursue STEM careers –

**General Atomics Sciences Education Foundation.** 

The <u>General Atomics Sciences Education Foundation</u> has been actively involved in improving K-12 STEM education since 1992 by providing outreach support to General Atomics employees, funding STEM non-profit organizations, and developing educational resources. The Foundation has provided over \$1M in support to K-12 STEM non-profits and has catalyzed 1,000 K-12 STEM outreach activities by GA staff via the GA Scientists/Engineers Supporting Science/Engineering for Students (GASSSS) Program.

Not only is General Atomics Sciences Education Foundation supporting StellarXplorers this year, but also AFA's other STEM program, CyberPatriot.

AFA is excited to have their support heading into new competition seasons, as these critical funds help to ensure high-quality and impactful programs are provided to the next generation of STEM scholars and space professionals. <u>Click here to read the full announcement</u>.

## Nova Space Offering Digital Learning to StellarXplorers Teams



Solving the space talent challenges of today and tomorrow, <u>Nova Space</u> was founded by space and education pioneers driven to provide the experiences necessary for all to succeed in the space economy.

Nova Space offers award-winning professional development and training for space professionals, and is globally recognized for its innovative use of technology and design to shorten time to competency. Using unique challenge-based learning experiences, Nova Space prepares businesses and individuals and provides graduates digital credentials recognizing

their ability to lead commercial or military efforts across the space ecosystem.

The Nova Space talent and job placement team utilizes decades of space operations experience and leadership to provide organizations candidates perfect for their culture, mission, and skill level. Using a combination of training and individual evaluation, Nova Space is the only recruiting service to provide the space industry with verified talent.

As part of their sponsorship, Nova Space will be providing access to a tailored version of their <u>Space</u> <u>Professional Course</u> to StellarXplorers teams. This award-winning training program has been developed by the best learning and subject matter experts to certify high performing, confident, and competent professionals.

"The success of future space missions and exploration is more dependent on the drive and dedication of humanity than any other factor. To build a confident and competent workforce, rich with the personal beliefs that they will find a rewarding career in space, a commitment to engaging continuous STEM education is necessary," said Christopher Allen, Co-Founder and COO of Nova Space. "Nova Space was founded to provide practical space education experiences, accessible anywhere, and we couldn't be prouder to have partnered with StellarXplorers to bring that mission to America's next generation."

StellarXplorers is excited to bring this innovative and engaging course material to this season's competitors, helping to further their understanding and knowledge of space.

# **STEM RESOURCES**

# Join the StellarXplorers Alumni Network

The StellarXplorers Alumni Network is intended to connect program alumni with each other and with program sponsors and supporters from industry and academia. Within this group we will share networking opportunities, available internships, job postings, and more!

This is a private group for past and present StellarXplorers participants. You must be at least 16 years of age to join, per LinkedIn account



regulations. All requests to join will be reviewed by StellarXplorers staff to verify participation in the program.

To join, visit: https://www.linkedin.com/groups/12721859/

# **SPACE NEWS**

# **Curious About What's Happening Overhead?**



Check out the Space.com <u>2023 Space Calendar</u> to stay up to date with upcoming planned rocket launches and skywatching-worthy dates.

## And in case you missed it...

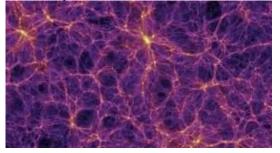
- 1 JUL 2023 | SpaceX rocket launches Euclid space telescope to map the 'dark universe' (video)
- 3 JUL 2023 | 'Light Bender' on the moon could help Artemis astronauts
- 4 JUL 2023 | Tour the mock Mars habitat where 4 NASA analog astronauts will spend the next year (video)
- 4 JUL 2023 | The UK's ODIN Space just aced its 1st space junk tracking system test in orbit
- 5 JUL 2023 | Time moved 5 times more slowly in 1st billion years after Big Bang
- 6 JUL 2023 | Reagan Library unveils statue of Sally Ride, 1st American woman in space
- 10 JUL 2023 | James Webb Space Telescope travels billions of years in amazing 3D video
- 12 JUL 2023 | NASA's new Artemis 'astrovans' arrive for use by moon-bound crews
- 13 JUL 2023 | NASA doubles spacesuit options for Artemis astronauts on the moon, ISS
- 15 JUL 2023 | These 3 Orion spacecraft will carry Artemis astronauts to the moon (photo)
- 17 JUL 2023 | Water on Mars carved deep gullies and left a 'great puzzle' for Red Planet history
- 19 JUL 2023 | 1st Barbie dolls to fly into space make their debut at Smithsonian
- 24 JUL 2023 | Boomerang meteorite may be the 1st space rock to leave Earth and return
- 24 JUL 2023 | Pioneering NASA 'Hidden Figure' Evelyn Boyd Granville dies at age 99
- 25 JUL 2023 | Archaeology on the moon: How to preserve spaceflight artifacts from Apollo era
- 27 JUL 2023 | Commander of NASA's 1st yearlong analog Mars mission discusses effort's 1st month
- 28 JUL 2023 | European satellite falls to Earth in landmark 'assisted reentry'

28 JUL 2023 | 3D-printed hearts on ISS could help astronauts travel to deep space

28 JUL 2023 | Meet Rollin' Justin, the robot that astronauts control from space

30 JUL 2023 | New satellite will beam back wild X-rays from huge objects in space

#### Images from space:



James Webb telescope detects earliest 'cosmic web' strand ever

A model of the cosmic web, showing bright galaxies clustering where tendrils of gas meet. (Image credit: ESA/ Springel et al., Virgo Consortium)

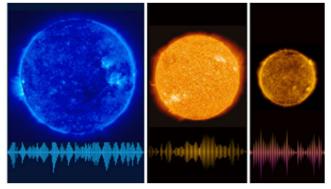


1st detection of gas giants being born around a young star

The phoenix-like appearance of debris and dust that represent a gas giant planet potentially forming around a young star. (Image credit: ESO/ALMA (ESO/NAOJ/NRAO)/Weber et al.)

# JUST FOR FUN

### Listen to the Sound of 3 Stars Play "Twinkle Twinkle Little Star"



The three stars measured to bring about a rendition of "Twinkle Twinkle Little Star" that's rooted in reality. (Image credit: Robert Lea/NASA)

Scientists created a 3D simulation of energy waves rippling through three separate stars, converted those ripples to sound waves, then set them to the familiar tune of "Twinkle Twinkle Little Star." This research should allow scientists to peer deeper into the interiors of stars than ever before.

Stars visually appear to twinkle from our vantage point on Earth due to the effects of the atmosphere, but stellar bodies also have an intrinsic "twinkle" associated with plasma rippling on their surfaces. The latter is imperceptible to even the most advanced telescopes on Earth. <u>Click to read more on Space.com</u>.

### StellarXplorers is generously supported by:



Help support the next generation of the STEM workforce – Become a Sponsor | Donate