

SEPTEMBER 2023

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

NATIONAL SPACE DESIGN COMPETITION

There's still time to register a team for StellarXplorers X



Happenings in this world and beyond ...

Registration for the 2023-2024 competition seaon is **open now through October 17**. Don't wait, <u>register your team today</u>!

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.

New Technical Mentor Database available - Find/Confirm a Mentor today!

Looking for a mentor to help your team? Team directors now have access to the new **Mentor Database** (the link to the database was shared in an email last month. It will also be included in the approval email for those teams that aren't yet approved). We encouage team directors to use the information to contact availables mentor via email. Once a mutual mentorship match has been made (or if you already have a mentor lined up), please let us know by completing the Mentor Match Form.

Find a	Mentor						
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					from as many technical me r virtually!) who is willing to	entors as they wish. If you are in help.	n nee <mark>d o</mark> f a
A HUGE than	nk you to all our	r mentors who are	volunte	ering their free tim	e to help support STEM edu	ication for our youth.	
	If you already i	have a mentor, ple	ase let r	us know who you'r	e working with by completi	ng the mentor match form belo	ow:
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The Mentor Database will be updated as newly approved mentors are identified. Additionally, as matches are made, we'll be removing mentors that no longer have availability to support teams. In order to keep this information accurate, we will need your help by submitting mentor match forms in a timely manner upon connecting with a mentor.

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. Click here for complete details and to register today.

Missed the August STEM Program Overview Sessions? We've got you covered!



In August, we held two live information sessions to learn more about the StellarXplorers National Space Design Competition and how to get involved. Thse sessions were perfect for anyone interested in starting a team or volunteering as a technical mentor.

Both sessions were recorded and shared with those that registered for the session, but for anyone who missed it, they're available now <u>here on our website</u>.

An additional session is scheduled for September 14 @ 7:00 PM ET – Register here

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 Instructions</u> to download **STK 12.5** and request licenses for the new season.



STELLARCAMPS

Wrap up of 2023 StellarCamps



Thank you to those organizations who hosted StellarCamps this summer. We trust you and your students enjoyed the curriculum and gained a deeper understanding of space principles. As a reminder to those who attended, please complete your participant survey to provide feedback so we can make adjustments for next summer.

StellarXplorers Director, Rebecca Dalton, had the opportunity to join a virtual StellarCamp hosted by Capt "Bud" Jackson Composite Squadron (New Jersey). She spoke with 50+ campers and their

parents about the importance of STEM education and answered questions about the upcoming StellarXplorers season.

If you have questions about hosting, please contact info@stellarxplorers.org.

SPONSOR NEWS

Pentagon space arm awards \$1.5 billion contract to Lockheed Martin and Northrop Grumman for communications satellites



The Pentagon's Space Development Agency on Monday awarded \$1.5 billion in contracts to Lockheed Martin and Northrop Grumman for prototype communications satellites.

SDA said the 72 satellites will be for the Beta variant of its Tranche 2 Transport Layer constellation, a network the U.S. military is building to provide encrypted communications through a fleet of hundreds of satellites, which it calls the Proliferated Warfighter Space Architecture. <u>Click here to read more.</u>

The International Space Station National Laboratory and Privateer announce data and information sharing partnership



The International Space Station (ISS) National Laboratory and Privateer Space, a leader in space decision intelligence and data infrastructure, announced a partnership to bring additional resources to the growing space economy. The announcement was made during a session at the annual ISS Research and Development Conference (ISSRDC) focused on companies innovating within the space landscape.

Click here to read the full press release.

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 AUG 2023 | Antares rocket makes its final launch to the International Space Station
- 2 AUG 2023 | NASA's interstellar Voyager 2 probe resumes communication with Earth
- 3 AUG 2023 | 1st solar eruption to simultaneously impact Earth, moon and Mars
- 6 AUG 2023 | Sun blasts out highest-energy radiation ever recorded, raising questions for solar physics
- 8 AUG 2023 | Astroscale will capture old space junk with robotic arm in 2026
- 8 AUG 2023 | Trio of tiny autonomous NASA rovers will launch to the moon next year
- 9 AUG 2023 | Mars is spinning faster and its days are getting shorter. Scientists aren't sure why
- 10 AUG 2023 | NASA's Psyche asteroid mission will test next-gen laser communications in space
- 11 AUG 2023 Ancient Mars mud cracks hint at conditions suitable for life
- 11 AUG 2023 Asteroid struck by NASA's DART probe to be radar-scanned with Hera mission
- 12 AUG 2023 | Supermassive black holes could be creating our universe's deep, gravitational 'hum'
- 14 AUG 2023 | Our Milky Way galaxy was not always a spiral. Here's how it changed shape
- 15 AUG 2023 | Mars Society begins simulated Red Planet mission in Canadian Arctic
- 16 AUG 2023 US Space Force creates 1st unit to target adversary satellites
- 18 AUG 2023 | NASA technology brings 'flying cars' closer to reality
- 23 AUG 2023 | India lands spacecraft on the moon for the 1st time
- 25 AUG 2023 | Ax-2 astronaut releasing free educational videos filmed in space
- 26 AUG 2023 | NASA and Forest Service offer seedlings to grow Artemis 'moon trees'
- 26 AUG 2023 | SpaceX launches international astronaut team on Crew-7 flight to space station for NASA
- 29 AUG 2023 | Company wants to clean space junk with 'capture bags' in orbit
- 30 AUG 2023 | India's Chandrayaan-3 moon rover reveals surprising sulfur find in lunar south pole soil

Images from space:



India's Chandrayaan-3 images far side of moon ahead of landing

Photo of the moon's far side captured on Aug. 19, 2023, by the Chandrayaan-3 probe's Lander Hazard Detection and Avoidance Camera (LHDAC). (Image credit: ISRO)



James Webb Space Telescope captures vibrant details of the Milky Way's galactic neighbor

A dense field of stars and dust in NGC 6822 seen by the James Webb Space Telescope. (Image credit: ESA)

JUST FOR FUN

The Forgotten Story of the Real First Barbie to Fly into Space (on a Still-Secret Mission)



A Mattel Barbie doll outfitted in a custom-made suit floats in front of a window aboard space shuttle Atlantis during the STS-38 mission for the Department of Defense in 1990. (Image credit: NASA/Steve Denison)

As it turns out, the two Barbie dolls that recently went on display at the Smithsonian are not the first to have flown into space, contrary to how they are described in the exhibit.

The pair of "Space Discovery" dolls that debuted July 18 at the National Air and Space Museum's Steven F. Udvar-Hazy Center in Virginia were indeed launched into orbit in 2022, and were the first Barbie dolls that Mattel — the toy company behind the iconic fashion figure brand — arranged to fly. But another Barbie made the trip 32 years earlier aboard a still-classified space shuttle mission and today it sits in the home of its original owner. Click to read more on Space.com.

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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>info@stellarxplorers.org</u>.

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