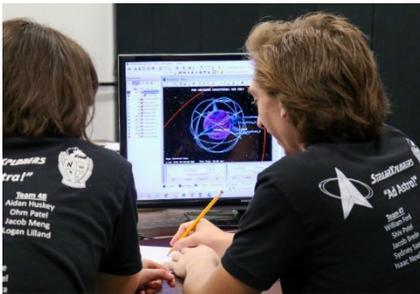




COMPETITION



StellarXplorers IX registration is open! If you're interested in participating in the You can register [here!](#)

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.

You can find out more information about our registration process [here!](#)

STELLARCAMPS

StellarCamps have been a great success this year! Middle school and high school participants are having fun learning about various aspects of space system design.

Even though our camps are wrapping up for this summer, you can find out more about StellarCamps [on our website.](#)



SPONSOR NEWS

A word from the Lockheed Martin Space Summer Interns:



Lockheed Martin's Space High School Internship Program is designed to provide current high school students the opportunity to work with real Lockheed Martin scientists and engineers.

This summer, a group of StellarXplorer competitors have spent their time (8-10 weeks from June to August) working and learning 25-35 hours a week on actual Lockheed Martin Space projects while receiving an hourly wage. These projects will solve complex challenges, advance scientific discovery, and deliver innovative solutions to help our customers keep people safe.

The STLX interns were asked the following questions to shed light on their experiences with Lockheed Martin this summer:

1. Describe your role and team at LM Space.
2. What are your thoughts on LM Space as a place to work?
3. What has been your favorite project to work on so far?
4. What have you learned about yourself/your interests through this internship?

Hayden Farrell

- My role is primarily doing literature research for various projects for the Lockheed Martin Space Advanced Technology Center. This means finding and sharing existing outside research on biologically produced materials for various applications. I also attend different customer and external partner meetings.
- LM Space is a workplace that has clearly demonstrated that it prioritizes the development and support of its employees and interns. As an individual going into my first year of college, this type of workplace is exactly where I want and need to be. As an intern I am able to sit in on meetings to understand how contracts in industry work. I also have had so many opportunities to speak to other individuals at LM and gain advice on what to prioritize in my career. Overall, I have had multiple opportunities to network. As a place to work as a whole, I love that LM provides me the opportunity to learn new skills, without the pressure of failure. In my experience, it is okay if I miss the mark on a task because this internship is a way for me to learn and grow and to gain those skills so my next attempt is better.
- It is close between a project researching the properties of melanin and the potential applications of cellulosic materials. I have learned so much about these materials/molecules that I hadn't thought twice about before. I find it so interesting how much more we have to learn about everyday molecules and what they can potentially be used for. The cellulosic materials project has also given me the opportunity to learn more about how projects start and how they receive funding. It is a side of this industry I prior had zero understanding of, but it is such a vital aspect of this type of work.
- I think that the most important thing I have learned about myself is that I know so little. There is so much information out there in the world and so much more research to be done in the world. What I know today, and especially before I started the internship is miniscule in comparison to what there is to be learned. I am so excited for the opportunity to continue learning more about the world. I also learned that there is so much more to the space industry than computer science and engineering. The more experience I seem to gain the more I realize that there is an application for almost every job in the space industry. For me, this internship has shown me that my love for the biosciences can be applied in ways I never thought about before.

Jacob Collins

- My role at LM Space is to develop and test a new prototype for satellite identification and tracking in low-earth-orbit (LEO) with my friend and coworker who was also on the same StellarX team as me.
- LM Space is the best work environment I have ever been in. Everyone here is kind and understanding, yet we all have a drive for excellence. I love the project and it's amazing to be paid for the work I used to do on my own as a hobby.
- In my project, the most interesting part so far was designing a schematic (blueprint) for the computer that our project revolves around. I felt it was rewarding to finish the whole schematic after hours of researching and designing each subsystem.
- This internship with Lockheed has taught me that education in my area of work is critical, moreover though what is even more important is being able to communicate my thoughts and ideas well to get the message across to my coworkers and to be able to apply the information and resources my managers give to me.

Mihir Vaishampayan

- I am a Project Engineer Intern working as part of the Workforce Staffing Team
- LM Space has been a fantastic place to work. Not only do we get several networking opportunities, but there are so many unique and wonderful resources at our disposal that I find myself using daily. I would recommend working here to anyone I know.

- My favorite project as part of the Workforce Staffing Team was preparing a Comparative Competitive Intelligence Analysis Report. It was incredibly fascinating to compare metrics and statistics from other companies and compare it to LM Space.
- First and foremost, I've learned that I want to end up working here once I graduate college. I've also learned a lot more about my learning style both as a follower and a leader. The most important thing I've gained from this internship is a chance to expand upon my interests outside of a school setting. It has allowed me to realign my goals and reevaluate what I want to do now that I have firsthand exposure to this line of work. In my case, I want to further pursue a career in Workforce Staffing and HR, more broadly.

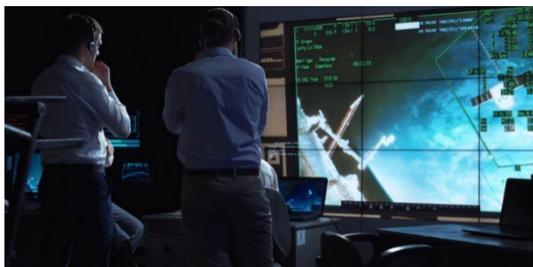
Dean Simon

- I'm on the Cable and Harness design team. The team is fairly small (~17 people), but is quickly growing. Everyone I've met has been super nice and I enjoy being a part of it. My primary task has been to help classify components in the Zuken Library.
- LM Space seems like a great place to work. A lot of famous spacecrafts and systems have been developed by LM, and the opportunity to work on them is fascinating. It also seems like a collaborative and supportive environment.
- The Zuken Library Project I've been working on has been interesting. There's a lot of parts from a lot of different manufacturers that have been made. My task is to look through them and find out their specifications and whether or not they're still in use. It's neat to see the components specifically that make up various probes and rockets.
- I think it has solidified my interest in engineering. Being able to work and interact with actual engineers and see what they do day-to-day has made me confident in my choice to pursue it as my career.

Lockheed Martin Space has partnered with Tallo, an enterprise-wide platform (think LinkedIn for students 13 -18 years old) where students can create a profile and connect with companies searching for STEM talent. Tallo will help students create their resume and connect with opportunities that match their interests. Connect with Lockheed Martin Space by [creating a Tallo profile](#).

Space Careers: Aerospace Software Engineer

Software engineers are responsible for planning, conducting, and coordinating software development activities. They design, develop, document, test, and debug software that contains logical and mathematical solutions to business/mission problems or questions in computer language for solutions by means of data processing equipment. They are involved in the entire development life cycle, and work to apply computer hardware and software knowledge for programming initiatives. Additionally, software engineers must correct program errors, prepare operating instructions, compile documentation of program development, and analyze system capabilities to resolve questions.



Paul Zajac, an Aerospace Software Engineer at Lockheed Martin Space, had this to say about his job:

“What I love about being an Aerospace Software Engineer is that I get to create the brains of the spacecraft, that cause it to actually do something. The beauty of software is that while it is purely abstract, when it works causes all of the other physical elements of the vehicle to behave properly – Separation mechanisms activate, the solar panels deploy, antennas point correctly, valves open, thrusters fire, and the spacecraft is able to communicate and perform its mission all because of the software created by the spacecraft software engineers. It is an exciting day when you see the brains that you helped to create actually causing the spacecraft to accomplish its mission.”

SPACE NEWS

In case you missed it...

26 JUN 2022 | [Small NASA satellite launches on big mission to orbit the Moon](#)

27 JUN 2022 | [New double crater seen on the moon after mystery rocket impact](#)

14 JULY 2022 | [NASA's James Webb Telescope Mission Updates](#)

14 JULY 2022 | [Far Beyond Pluto: What's next for NASA's New Horizons probe?](#)

26 JULY 2022 | [Buzz Aldrin's moon landing jacket fetches record-breaking \\$2.7 million](#)

01 AUG 2022 | [Space Force to take on bigger role planning future DoD space investments](#)

MISCELLANEOUS

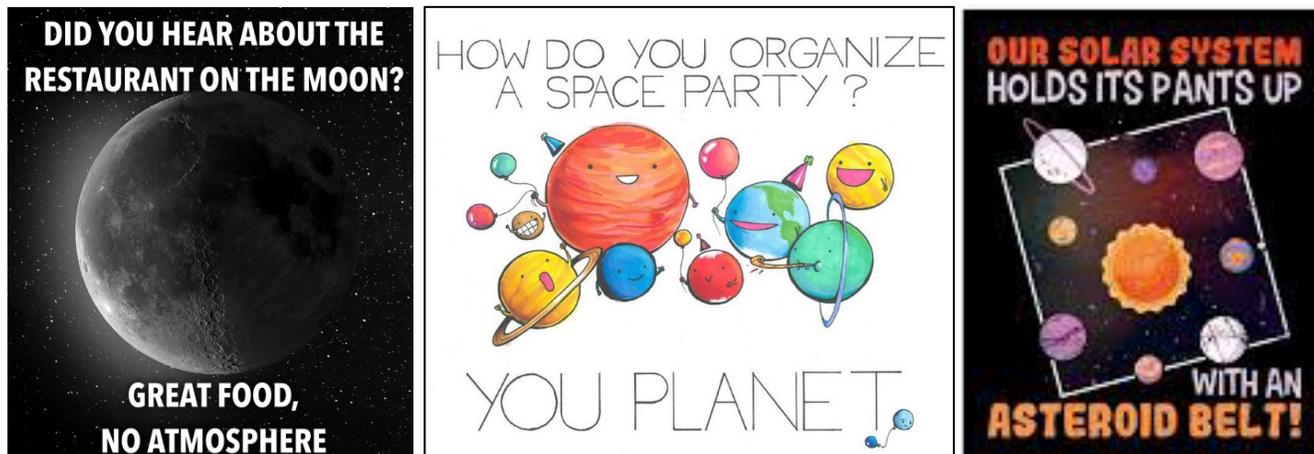
StellarXplorers.org has a new look!

Our website – www.stellarxplorers.org – underwent a redesign and was published on Friday, July 31.

If there is any information missing or information you want to see on the website, let us know!

Space Jokes

Do you have a good space-themed joke? Send it to info@stellarxplorers.org with the subject line *Newsletter Submission* and you might just see it in the next edition of The StellarXpress!



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