

There's Space for Everyone

The Columbia Space Initiative's **200 students** work to solve a diverse range of space-related challenges.

We teach space science at under-resourced NYC middle schools, design astronaut tools, lead space policy discourse, perform microbiology research, and design, build, & launch rockets and satellites.

Help us solve these nextgeneration challenges!

Community Impact

CSI is committed to making an impact, both within our campus community and beyond. We work with non-profits, public schools, and other organizations in our area and across the country to share our love for space and science. Here's 2022 and 2023 by the numbers:

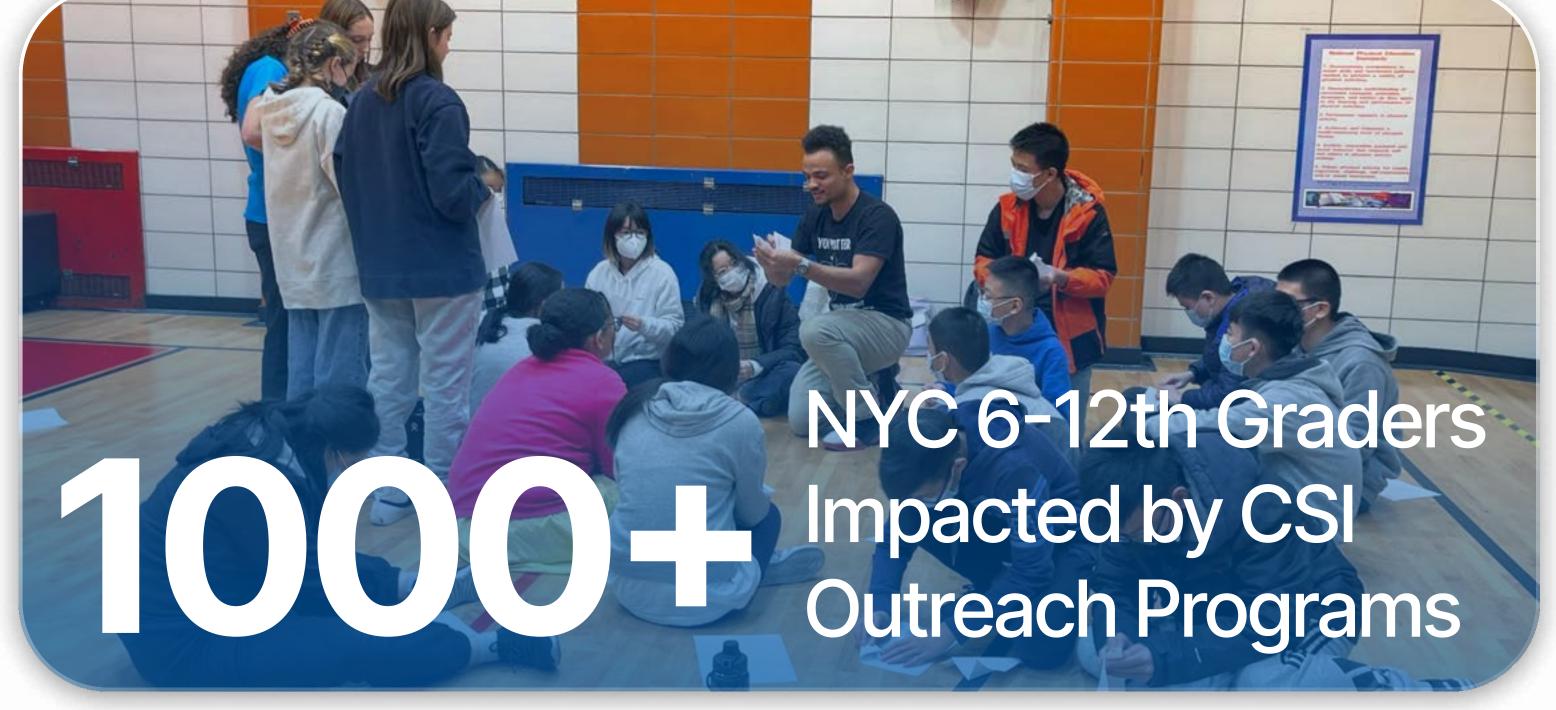






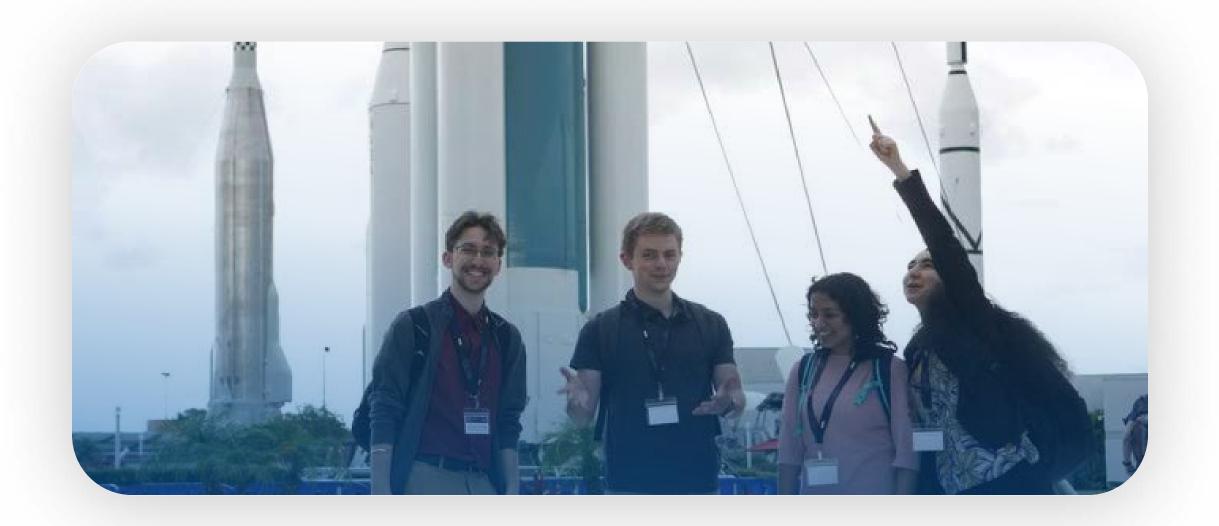






In Our Orbit

A preview of some of our 11 ongoing engineering, science, & policy projects.



CUBESAT APPROVED BY NASA FOR FUNDED LAUNCH

Our first 4U satellite, LIONESS, will carry a hydrogen spectrograph to image the gas around galaxies. The team was awarded a 2026 NASA flight (\$300,000 in launch costs), and funding for 4 interns who spent last summer developing the mission full-time.

BIOLOGICAL EXPERIMENT TESTED ON THE ISS

CSI's experimental payload, which tested the efficacy of antibiotics in microgravity, collected data on the ISS for 30 days in 2022, as part of NASA's Student Payload Opportunity with Citizen Science (SPOCS) competition.





COLUMBIA LAUNCHES FIRST HYBRID ROCKET

CSI's nitrous oxide-paraffin wax hybrid rocket was entirely designed, manufactured, and tested from scratch by our members. The rocket was successfully launched at the Spaceport America Cup in New Mexico in July of 2023, and upgrades are already underway!

STUDENT-DESIGNED TOOLS SELECTED FOR NASA NBL

Our Micro-G mission is on a winning streak! We have been nationally selected by NASA to test our extravehicular astronaut tool in the Johnson Space Center's Neutral Buoyancy Lab six times in the last seven years.





SPACE MICROBIO TO NASA JET PROPULSION LAB

In their inaugural year, our Space Microbiology Mission investigated the synthesis of zinc oxide nanoparticles in microgravity and its antibiotic efficacy, and partnered with NASA's Biotechnology and Planetary Protection Group at the Jet Propulsion Lab.

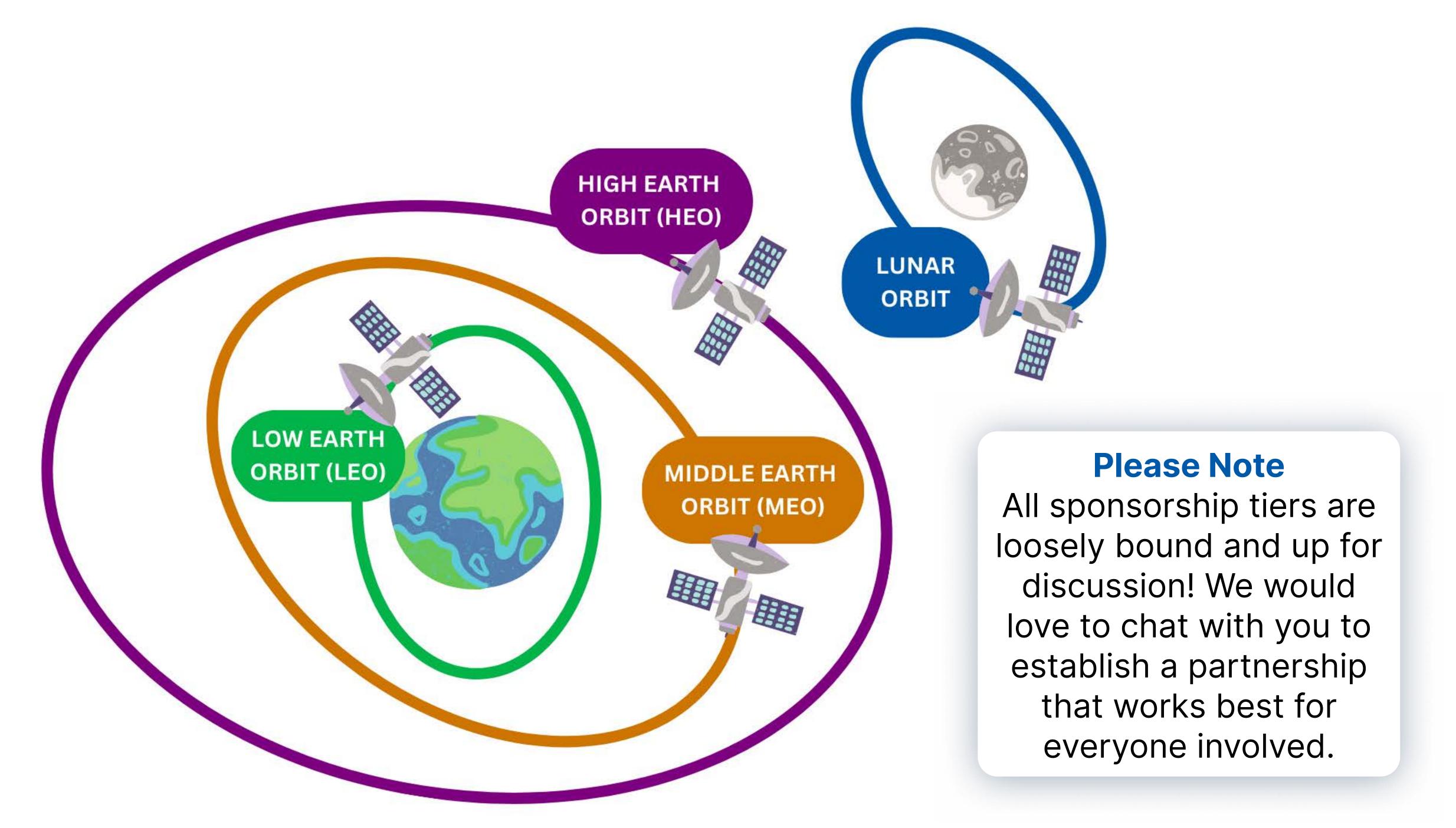
Student Pathways



Our alumni are pioneering the next generation of technology and research, in aerospace and beyond. We are committed to sharing our work and gratitude with our sponsorship partners and the NYC community!

Sponsor Our Mission

	LEO \$500+	MEO \$3,000+	HEO \$9,000+	Lunar \$27,000+
Honored on Columbia Space Initiative (CSI) Website				
Newsletter Highlight to 2000+ Student Recipients				
CSI Merchandise Package				
Open Access to CSI Stock Media				
Invitation to Engineering Design Reviews				
Company-Specific Social Media Spotlight/Advertisement				
Access to Club Resume Database				
Logo Displayed on CSI Project/Vehicle of Choice				
Logo on Competition T-Shirts				
Invitation to Launch and Test Events				
Appreciation Package from Astronaut Mike Massimino				
Company-Specific Recruiting Event				
Featured Logo Displayed on All Possible CSI Projects				
Company-Tailored Custom Marketing Media				
Honored as Sponsor in All Possible News/Press Items				



Dear Reader,

The Columbia Space Initiative (CSI) is the largest engineering club at Columbia University. We are an entirely student-led umbrella organization home to 11 technical projects, or "missions", related to space science and engineering. These diverse missions provide an unparalleled opportunity for students to work on interdisciplinary projects at intersections of engineering, biology, chemistry, medicine, computer science, business, and policy.

In the past two years alone, CSI has **sent a payload to the International Space Station** (SPOCS mission), **tested a lunar anchoring device** at the Neutral Buoyancy Lab at the NASA Johnson Space Center (Micro-G), placed 3rd in our category of the **largest international collegiate rocketry competition** (Rockets), and **won a funded NASA launch to send Columbia's first satellite into orbit** by 2027. In our short history since being founded in 2015, the club has also launched Columbia's Mascot, Roar-ee, to 100k feet on a high-altitude balloon, designed a 3D printer for use in microgravity, and led student trips to NASA-JPL, the Air Force Research Lab, Kennedy Space Center, and conferences like SmallSat and AlAA SciTech.

We enable Columbians to obtain real hands-on experience that would otherwise be absent from their college education. Columbia University lacks an Aerospace Department, and CSI fills that gap for many. The club welcomes members from **25+** majors in both STEM and the humanities, and is advised by former NASA Astronaut and Mechanical Engineering Professor Mike Massimino. Our missions design, analyze, build, and test everything inhouse, using the resources available in the Columbia Makerspace and Mechanical Engineering Shop. In turn, these experiences allow students to secure internships and jobs at **top-level engineering companies and research institutions including SpaceX, Jet Propulsion Lab (JPL), Lockheed, NASA, Stanford, Caltech, Carnegie Mellon University, and MIT, among others.** Alumni often credit their success in technical roles to experience gained while in CSI.

Outside of technical endeavors, the club participates in extensive educational outreach in partnership with 6 NYC middle schools (1000+ students annually) and other local educational organizations. This includes monthly auditorium workshops, supplementary science curriculum, and hands-on data analysis; last year, students directly analyzed data collected by CSI's payload on the International Space Station. Every August, CSI members serve as space science counselors for a week-long summer camp, teaching approximately 100 NYC public school students through hands-on telescope, rocketry, and drone activities; for many of these NYC youth, it's their first experience seeing the stars.

Our goal as student leaders is to create a supportive, creative environment that introduces students to new learning opportunities. We build memories and expertise among some of the world's brightest students, and foster a love of space that will propel humanity forward.

We thank you for your support!

Thank You.

The missions organized by Columbia Space Initiative are only possible with your support.

To learn more or sponsor us, visit https://columbiaspace.org/ or reach out to us directly at spaceinitiative@columbia.edu

