

Young Aerospace Visionaries Contest

2026 Annual Challenge Brief

Hosted by the AIAA Northern Ohio Section

The Challenge

In 2026, humans are returning to deep space with Artemis II, the first crewed mission of the Artemis program. This mission marks a major step toward a sustained human presence beyond low Earth orbit.

For this year's Young Aerospace Visionaries Contest, students are challenged to imagine the future architecture of cislunar space, the region that includes Earth, the Moon, and everything in between.



Figure 1: Cislunar Space is the "backyard" between Earth and the Moon that we are starting to explore, live in, and use for future missions to Mars.

Students will explore how people, vehicles, infrastructure, and systems might work together to support exploration, transportation, living, and economic activity across the Earth–Moon system.

This Year's Focus:

Cislunar Space and the Earth–Moon Economy

Cislunar space is more than a path to the Moon. It may become a new domain where transportation, energy, communication, science, and commerce all interact.

Students are invited to imagine future systems that could support travel between Earth and the Moon, operations in lunar orbit or at stable space locations, activity on the Moon's surface, and economic connections between Earth, the Moon, and space-based systems.

Ideas may focus on a single element or on how multiple elements work together.

Background and Inspiration

As human activity expands beyond Earth, new questions emerge. How do people and cargo move efficiently between Earth and the Moon? What infrastructure is needed to support repeated missions? How might energy, materials, or services be produced or used in space? What kinds of jobs, industries, or economies could exist beyond Earth?

Future cislunar space may include transportation hubs, space stations, lunar bases, resource systems, or entirely new concepts that do not exist today.

Students are encouraged to think creatively about how this environment could develop over time.



Figure 2: Future cislunar space may include sustained lunar operations supported by transportation, energy, and infrastructure across the Earth–Moon system.

What Students Should Create

Each student should prepare two parts.

1. The first is a visual representation. This should be a drawing or original digital image that illustrates the student’s idea for a future cislunar system, vehicle, structure, or concept.
2. The second is a written explanation. This should describe what the concept is, how it fits into the Earth–Moon system, and how it supports exploration, living, or economic activity.

Expectations are age-appropriate.

Guidance for Students

There is no single correct solution.

Students may choose to focus on transportation systems, habitats or stations, energy or communication infrastructure, lunar surface operations, economic or trade systems, or a new role humans might play in cislunar space.

Younger students may focus on big ideas and visuals. Older students may include more detail about how systems work together.

Creativity, clarity, and original thinking are encouraged.

Getting Started

Think about how people might live, work, and travel between Earth and the Moon in the future. Consider what problems would need to be solved and what new opportunities might exist in space.

Let Artemis II be the starting point... then imagine what comes next!