



Eco Innovation Challenge



2026-2027

Competition Guide



ABOUT STEM Innovation in Action

Students will work individually or in teams of four to develop an innovation that addresses one of the Eco Innovation Challenge Pillars: Sustainability and Environmental Engineering. The challenge is designed to engage and empower student innovators to create human-centered, eco-focused solutions through hands-on challenges, mentorship, and showcase events.

Over the course of a few months, participants will go through the innovation process and design a solution to the very important issues we experience that impact our planet.

Each Eco Innovation Challenge team must include 2–4 students ages 11–18, or a single student in that age range. Participants compete in either the Middle School Division (grades 6–8) or the High School Division (grades 9–12). The competition is open to eligible students who live in the Greater Houston Area Metroplex.

1

Registration Opens | September 17, 2026

- Assemble a team of 2–4 students or register individually
- Select a coach
- Complete registration
- Brainstorm Ideas

2

Innovation Brief Materials Due | March 22, 2027

- Write an Innovation Portfolio
- Record an Innovation Video

3

Eco Innovation Show Case & Awards | May 2027

- All teams/individuals who successfully submit an innovation will be invited to the Innovation Celebration at Space Center Houston.
- Select teams will be invited to showcase their projects in our public project gallery or present their innovation to the Innovation Celebration audience. Additionally, guests will get exclusive access to Space Center Houston, networking opportunities, and the chance to hear from an astronaut.
- Top innovators and teams will receive prizes for their innovations.

Core Pillars

Teams will choose the pillar that sparks their passion and dive into a real-world challenges like water conservation, climate-resilient structures, carbon capture, or urban heat reduction. Whether you're designing eco-friendly materials or inventing systems to reduce waste, these focus areas will guide your research, prototyping, and impact storytelling.

Environmental Engineering

Designing innovative systems and structures that safeguard our environment and communities.

Possible areas of focus:

- Climate Resilient Structures
- Green Building Materials
- Urban Heat Reduction
- Transportation

Sustainability

Creating resource-smart solutions that preserve our planet for generations to come. Possible areas of focus:

- Water Conservation
- Sustainable Agriculture
- Carbon Capture
- Waste Reduction

OVERVIEW

Registration

1

Gather Your Crew

- Work individually or create a team of 2-4 students. Invite students from your school or around the Houston Area to collaborate. Having the right team members is key to making a successful team.
- Recruit a coach. This can be a teacher, parent, subject-matter expert, or other qualified mentor over the age of 18.

2

Register

All team members and the coach must register through the [Eco Innovation Challenge Award Force](#) under one account. As part of registration, team members and their legal guardian must review this Student Guide, Rules and Regulations, and Terms and Conditions which apply to all participants.

How Student Teams Register in Award Force

- Pick a team lead (entry owner) and decide your project/team name.
- Go to schinnovation.awardsplatform.com (QR Code) and click Register (or Log in).
- Choose Eco Innovation Challenge → Start entry and save the first tab.
- Work together in one entry, saving drafts as you go, and the owner submits by the deadline.

**Workshops Are Available!**

Kickstart your students' eco-innovation journey with a free, 1-hour hands-on workshop led by the STEM Innovation in Action team—virtually or right at your school or organization. We bring guided activities, expert tips, and all materials needed to help students draft their first project concepts and Submission Framework. Interested educators can schedule a session by contacting steminnovation@spacecenter.org.

OVERVIEW

Innovation Brief

Deadline

March 22, 2027 by 11:59PM

1**Team Bio**

Your Team Bio is your first chance to make an impression on the judges—share who you are, what drives you, and how you work together. Keep it personal and focused. Remember, this snapshot sets the stage for your entire submission, so craft it with the same care you give your prototype!

2**Innovation Portfolio**

The Innovation Portfolio is the most important submission item reviewed by the Judges. Your team will provide information on your innovation that will tell your story, describe your innovation and its impact.

3**Innovation Video**

Your Innovation Video is a pitch that focuses on explaining your innovation and its benefits.

4**Evidence of Research**

Citing your references is a very important part of any project. References are to be listed in your submission in APA Format. If you need help in this citation style please refer to [this resource](#).

Once submitted, a group of judges will score the submissions in the Eco Challenge Award Force Portal according to the Scoring Guide and provide feedback. In May 2027, feedback will be released, and winners will be announced at the awards ceremony.

Innovation Brief

Team Bio

1. Team Name

- What will the world know your team by?
- How does your team name reflect the core mission of your innovation?

2. Team Description

- How did your team form?
- What role will each team member play?
- What motivated you to make this innovation?
- What special capabilities, resources or experiences do your team members bring?

3. Mission Statement

- What is the impact you hope to make?

4. Innovation Name

- What will the world call your innovation?

5. Innovation Tag Line

- How does your tag line hook people in and communicate your team's mission?

Innovation Portfolio

1. Need Overview (200 words)

- What is the root environmental challenge you're tackling?
- What group or location does this need have the greatest impact on?
- Why does this need require a solution?

2. Innovation Overview (200 words)

- Describe your innovation, it's design, technology and how it works.
- What are the features that set it apart from existing similar innovations?
- Which components or materials are most critical to your prototype's operation?

3. Innovation Impact Overview (200 words)

- What impact will your solution have on individuals, humankind, or the environment?
- How will you measure or demonstrate that impact?
- Who will benefit and over what timeframe?

Innovation Video

In three to five minutes, teams will showcase their innovation, explain the need and impact of their innovation, and present a call to action to inspire the world to support their innovation. The style of video is at the discretion of the team. For example, videos can be a voice narration over a PowerPoint.

Teams are encouraged to include the following:

- Need Overview
- Innovation Overview
- Innovation Impact Overview
- Call to Action (What final statement will you include to inspire viewers to support your solution?)
- Bibliography

Requirements

- No more than 5 minutes in length.
- MP4 file format not to exceed 800 MB.

Innovation Brief Scoring Guide

Theme	Description
30% Innovation	• Originality: Is the idea truly new or a novel combination of existing technologies and does it show creative or scientific inspiration? • Impact Potential: Does it transform an industry or deliver real benefits to customers or society? • Ambition Level: Is the innovation incremental, bold, or audacious compared to current solutions? • Verification: Has an online search confirmed its uniqueness and ruled out duplicates? • IP Defensibility: Can the concept be protected (patent, trade secret, copyright, first mover, contracts, ecosystem capture) to secure its value?
20% Practicality	• Feasibility: Can the solution be developed within a reasonable time frame and budget? • Realism: Are the chosen technologies or methods appropriate and attainable? • Proof of Concept: Has the team demonstrated viability (e.g., prototype, demo, or graphic mock-up)? • Evidence Base: Do they provide data, expert testimony, or research supporting feasibility? • Next Steps: Is there a clear plan for further testing or development to validate the concept?
20% Storytelling and Professionalism	• Citizen Appeal: Does the pitch spark a reasonable citizen's interest to learn more? • Clarity of Opportunity: Is the problem and motivation clearly and compellingly described? • Credibility Boost: Does the video reinforce the company's expertise and trustworthiness? • Narrative Structure: Is there a logical, engaging flow across all materials (bio, brief, and video)? • Polish & Consistency: Are writing, visuals, and organization professional?
30% Human and Environmental Impact	• Metric Clarity: Are the projected benefits (e.g., liters saved, emissions reduced, hours gained) clearly quantified and tied to reliable data or testing? • Scope of Benefit: Does the solution address a meaningful population or ecosystem scale—local community, regional watershed, or global climate—and articulate who gains and how? • Evidence & Validation: Has the team gathered real user feedback or pilot data (surveys, demos, simulations) to support their impact claims? • Equity & Accessibility: Does the innovation consider diverse user needs, ensuring the benefits reach underserved or vulnerable populations? • Sustainability & Scale-Up: Can the impact be maintained and expanded over time—through cost-effective deployment, community buy-in, or low-maintenance design—so it continues delivering value long after the prototype phase?

2026-2027

The Eco Innovation Celebration and Awards Ceremony

Space Center Houston – Houston, TX | May 2027 (Invitation Only)

The Eco Innovation Celebration & Awards Ceremony is the culminating event where student innovators come together to explore Space Center Houston, network, learn from a STEM expert, and celebrate innovation! Select innovations will showcase their projects in our public gallery prior to the awards ceremony and select innovators will present their projects on stage to the Innovation Celebration guests. Top innovators will receive awards presented across Individual and Team divisions (Middle School and High School).

Awards Include

Top Team Innovation Middle School Division

Scholarship to Space Center U® – Middle School program

Top Individual Innovation Middle School Division

Scholarship to Space Center U® – Middle School program

Top Team Innovation High School Division (Choose One)

Scholarship to Space Center U® – High School program

Conrad Challenge Online Innovation Stage Registration Waiver

Top Individual Innovation High School Division (Choose One)

Scholarship to Space Center U® – High School program

Conrad Challenge Online Innovation Stage Registration Waiver

Honorable Mention Innovators

Scholarship to a Space Center Houston Education Program
(not including Space Center U® or Conrad Challenge)