

STEMROBO STEAM INNOVATION LEAGUE 2026

CATEGORY: OPEN INNOVATION CHALLENGE EVENT
NAME: INNOSDG QUEST

ELIGIBLE GRADES: 6 –11

1. OVERVIEW

- InnoSDG Quest is an open-ended innovation challenge under the STEMROBO STEAM Innovation League (SIL) 2026.
- This category encourages students to design real-world, impactful projects aligned with the United Nations Sustainable Development Goals (SDGs).
- Students are free to choose any project domain, any technology, and any microcontroller, as long as the solution clearly addresses one or more SDGs.
- The focus is on problem identification, innovation, impact, and sustainability.

2. THEME & SDG ALIGNMENT

- Every project **must be mapped to at least one UN Sustainable Development Goal (SDG)**.
- Projects should clearly demonstrate:
 1. The problem linked to the chosen SDG
 2. Why the problem matters
 3. How the proposed solution creates positive impact

APPROVED SDGS FOR INNOSDG QUEST:

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| 1. No Poverty | 10. Reduced Inequalities |
| 2. Zero Hunger | 11. Sustainable Cities and Communities |
| 3. Good Health and Well-being | 12. Responsible Consumption and Production |
| 4. Quality Education | 13. Climate Action |
| 5. Gender Equality | 14. Life Below Water |
| 6. Clean Water and Sanitation | 15. Life On Land |
| 7. Affordable and Clean Energy | 16. Peace, Justice and Strong Institutions |
| 8. Decent Work and Economic Growth | 17. Partnerships for the Goals |
| 9. Industry, Innovation and Infrastructure | |

Projects must clearly relate to one or more of the above SDGs.

3. COMPETITION STRUCTURE & ELIGIBILITY

- Grade Eligibility: **Grades 6 to 11**
- Team Size: **Maximum 2 students per team**
- **Project Flexibility:**
 - Students may build any type of project (hardware, software, AI, IoT, robotics, automation, assistive tech, sustainability solutions, etc.).
 - Any microcontroller or computing platform may be used (Arduino, ESP32, Raspberry Pi, Micro:bit, etc.).
 - Use of sensors, actuators, displays, and communication modules is allowed.

Originality & Ethics:

- Projects must be original student work.
- Direct copies of existing products or tutorials are discouraged.
- Proper attribution is required if inspiration is taken from existing ideas.

4. SUBMISSION & PRESENTATION

- Presentation Time: **5 minutes per team**
- **During the presentation, teams should cover:**
 1. SDG Identification – Which SDG(s) does your project address?
 2. Problem Statement – What real-world issue are you solving?
 3. Solution & Innovation – How your idea works and what makes it unique
 4. Technical Explanation – Hardware, software, logic, and implementation
 5. Impact & Scalability – Social, environmental, or economic impact

5. JUDGING CRITERIA (TOTAL: 50 MARKS)

Criterion	Description	Marks
• SDG Relevance & Impact	Depth of alignment with chosen SDG(s) and real-world impact	15
• Innovation & Creativity	Originality, novelty, and problem - solving approach	15
• Technical Implementation	Functionality, design, and technical clarity, circuit & Coding	10
• Presentation & Communication	Clarity, confidence, explanation, and demo	10

6. RULES & GUIDELINES

- Projects must be clearly linked to at least one SDG.
- Any microcontroller or technology stack is allowed.
- Projects should be functional prototypes, not only conceptual models.
- Unsafe, unethical, or environmentally harmful projects will be

7. INTELLECTUAL PROPERTY (IP)

- Projects must be original and should not infringe on third-party IP.
- If inspired by existing solutions, teams must disclose references.
- Teams retain ownership of their projects; organizers may request documentation during judging.

8. AWARDS & OPPORTUNITIES

- Top teams may receive opportunities to:
 1. Present projects at national or international platforms
 2. Gain mentorship from industry and academic experts
 3. Showcase work in STEMROBO innovation forums
- Participation strengthens student profiles in innovation, sustainability, and STEAM education.

9. TIPS FOR STUDENTS & TEACHERS

- Choose an SDG you genuinely care about.
- Focus on impact, not just technology.
- Keep the solution simple, effective, and demonstrable.
- Clearly connect the problem → solution → SDG.
- Test the project thoroughly before presentation.
- Practice presenting within the 5-minute limit.
- Teachers should mentor and guide, but students must do the core work.

10. FAQs (FREQUENTLY ASKED QUESTIONS)

Q1. Is using a specific kit mandatory?

A. No. InnoSDG Quest is an open category; any kit or platform may be used.

Q2. Can software-only projects be submitted?

A. Yes, if they clearly address an SDG and demonstrate innovation and impact.

Q3. Can a project address multiple SDGs?

A. Yes. Teams are encouraged to highlight primary and secondary SDGs.

Q4. Is coding mandatory?

A. Yes. Some level of technical or logical implementation is expected.

Q5. Can mentors or parents build the project?

A. No. The project must be primarily designed and built by students.