

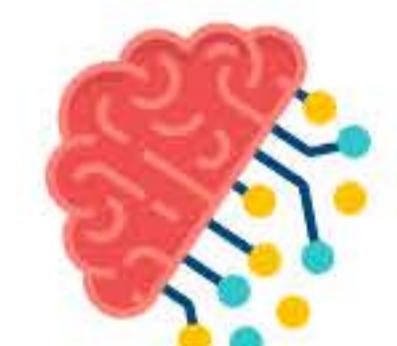


# STEAM INNOVATION LEAGUE



**World's Biggest AI & Robotics  
Competition focused around Innovation**

Innovation + Creativity + Collaboration = SIL



# ABOUT

## STEAM Innovation League

The STEAM Innovation League, organized by STEMROBO TECHNOLOGIES, is an exciting competition for K-12 students across the world, offering a unique platform to showcase their skills in STEAM, Robotics, and AI. Students submit their innovative ideas, and the best 40 ideas will be selected for the State Level Virtual Exhibition, 20 from each category.

From there, the top 20 teams advance to the dynamic National Championship Round.

This competition not only enhances students' technical knowledge but also promotes economically viable solutions that support India's technological growth and align with the UN's Sustainable Development Goals. Join us in nurturing the next generation of innovators and leaders!

### We will Appreciate



Creativity and  
Collaboration



Economical  
and Application  
Based Projects



Innovative  
ideas to solve  
real world  
problems



Sustainable  
Development  
Projects

## VISION OF

## STEAM Innovation League

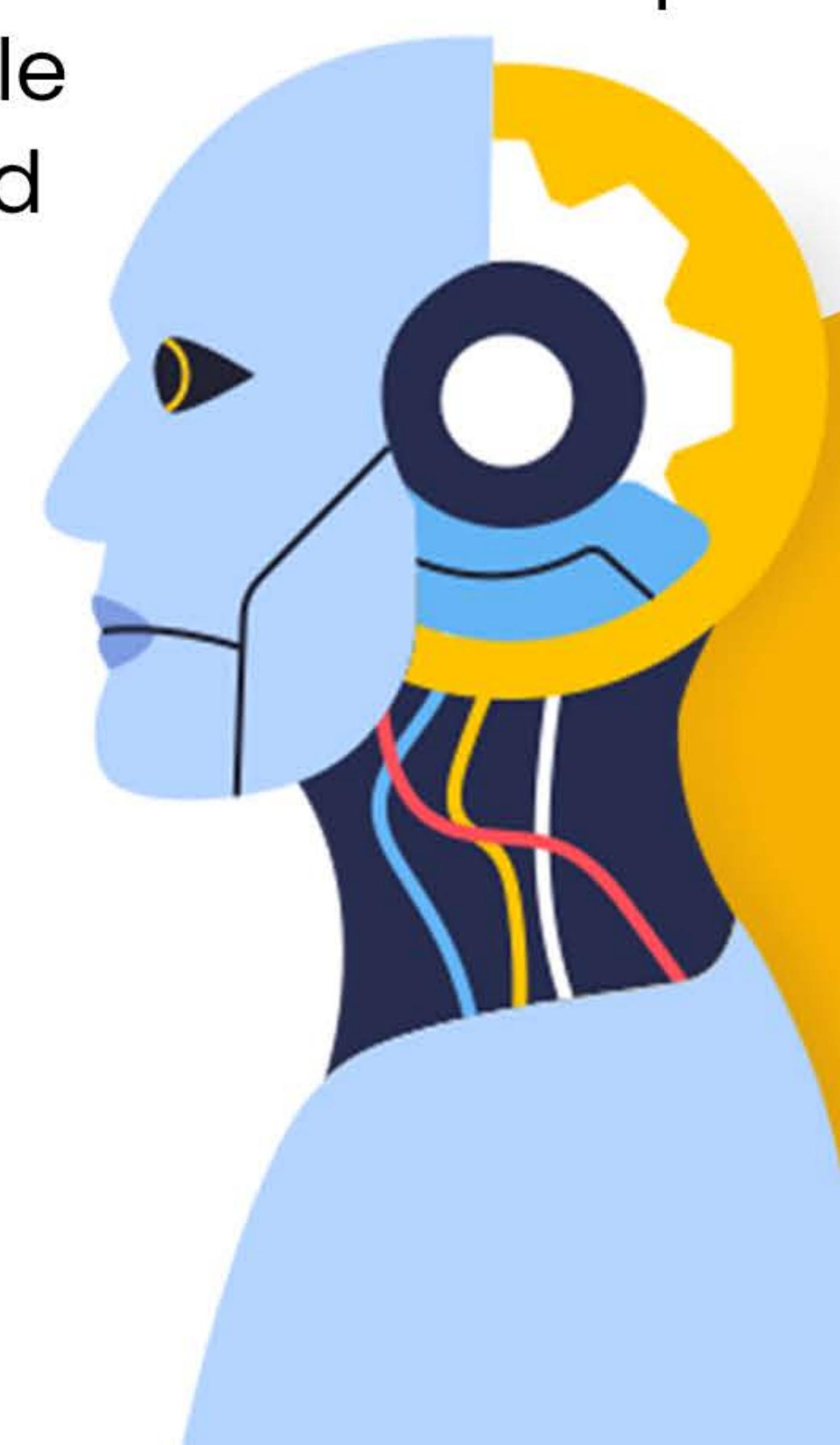
Our vision for the STEAM Innovation League is to create a dynamic ecosystem where students can explore the exhilarating worlds of STEAM, Robotics, Artificial Intelligence, and IoT by engaging in economically viable, application-based projects and interactive designs that address real-world problems. This competition aims to strengthen their critical thinking and logical skills while motivating them to enhance their computational and analytical thinking. By participating, students will be empowered to become innovative problem-solvers and future leaders in technology.

### TRUSTED BY

**3500+**  
**Schools**

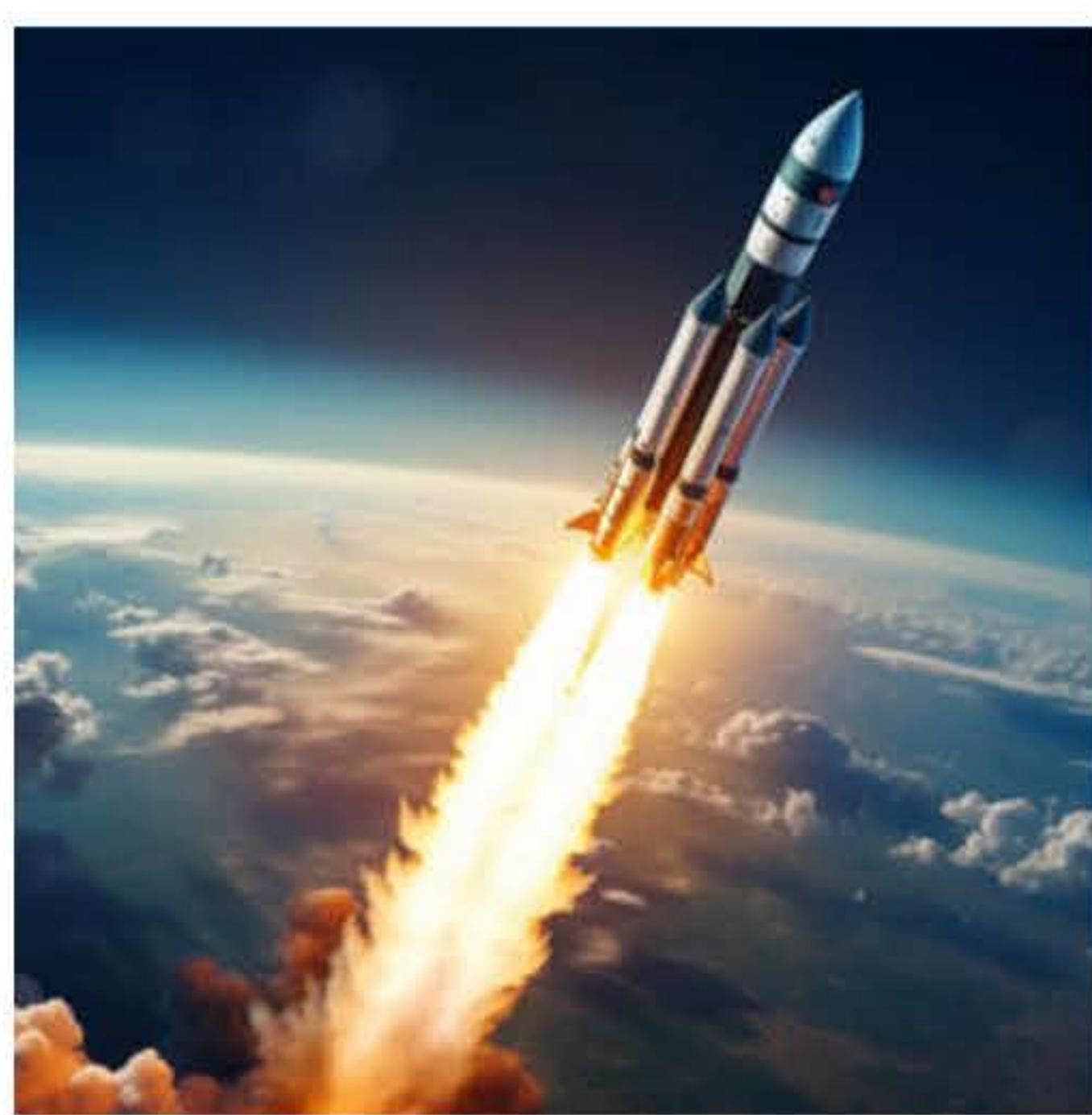
**1.5+ MN**  
**Students**

**30+**  
**Countries**



# 2024-2025 THEME OF SCIENCE & TECHNOLOGY

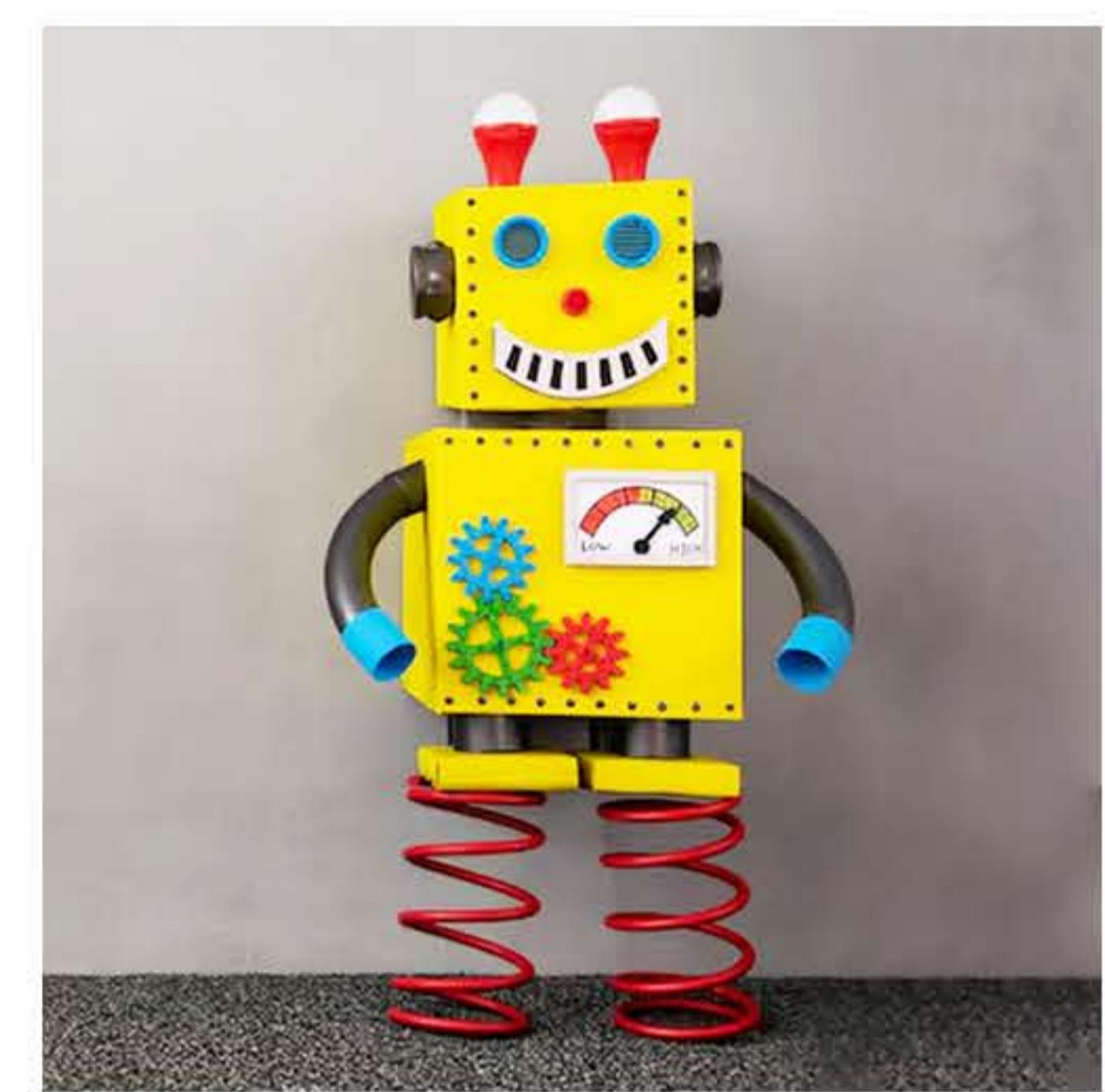
We are launching 5 categories on which teams can participate. Students can work on more than one category and make Economical and Application Based projects. Projects should be solution-oriented and applicable to Solve Real World Problems.



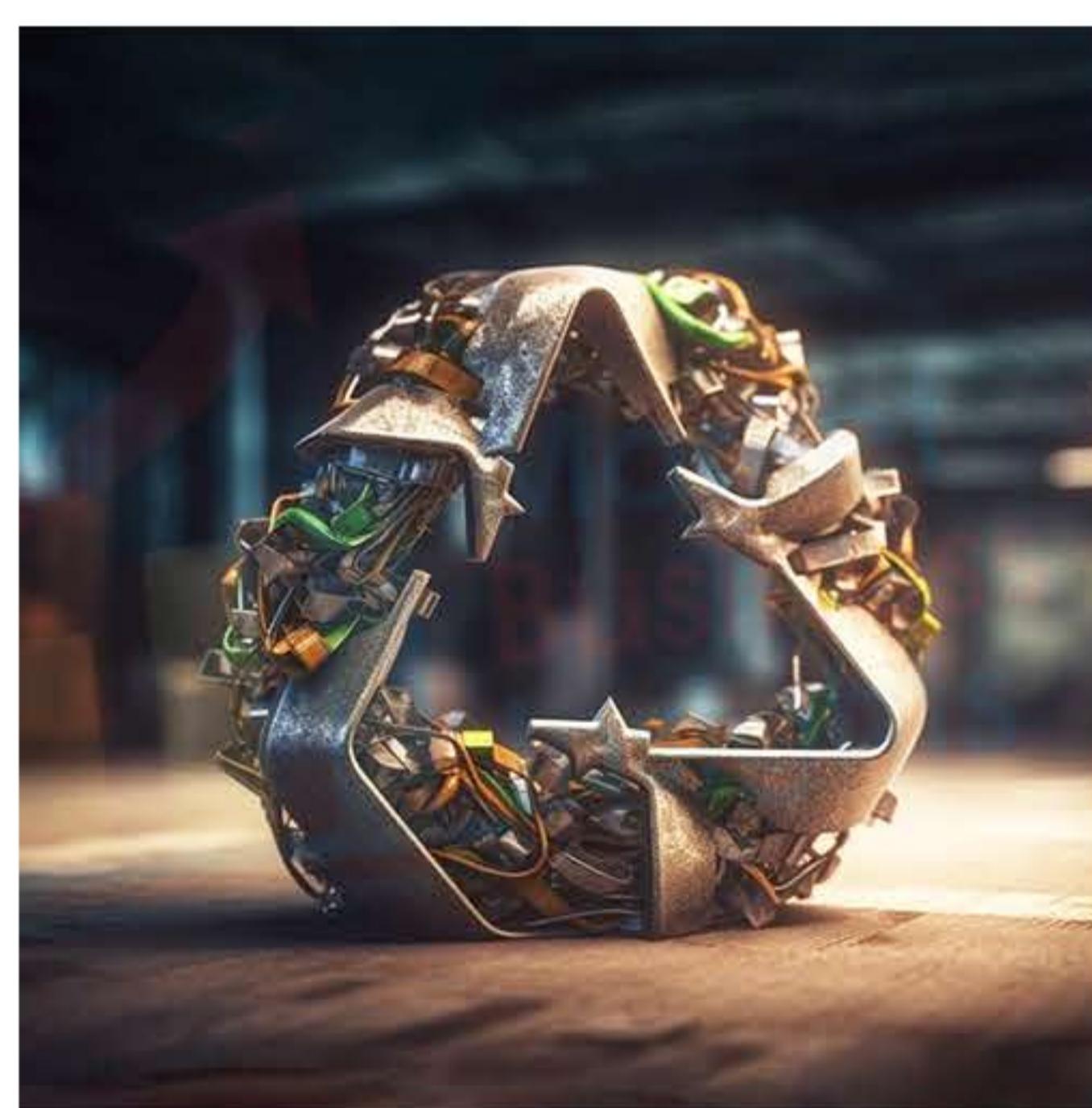
Space Technology



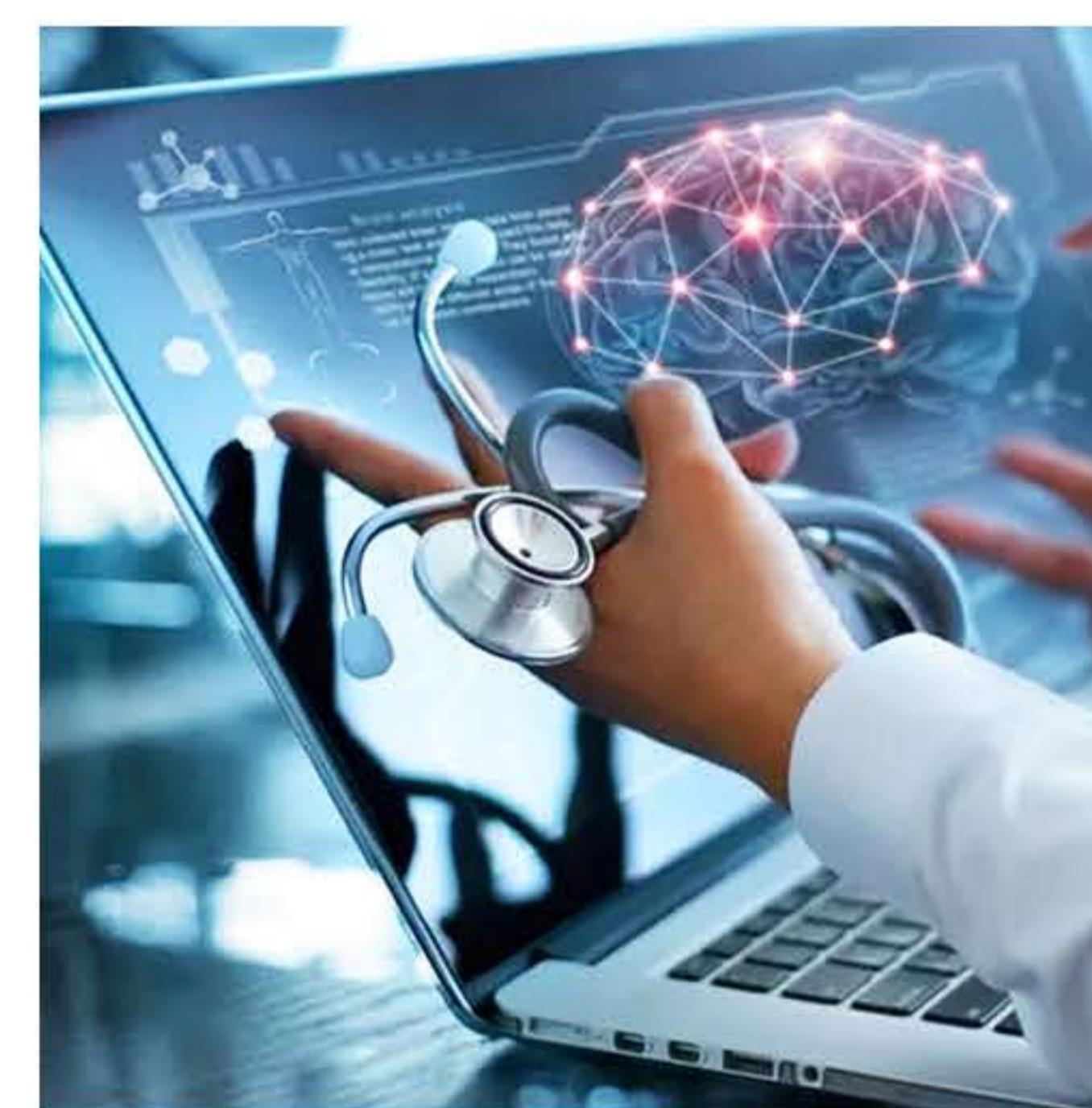
3D Tech Design



Toycathon



BOW(Best of waste) Tech



Medical Technology



JS  
PHP  
C#

# PROJECT

## Ideas for all the Categories



### 1. Space Technology

- **Mars Rover:** Develop a prototype rover for navigating and performing tasks on Mars, addressing terrain challenges and autonomous operation.
- **Energy Conservation in Space:** Create solutions for conserving energy on space missions, including efficient power systems and renewable energy sources.
- **Wireless Tech in Space:** Develop robust wireless communication systems for space, improving data transmission between spacecraft, satellites, and ground stations.
- **Launch Pad Tech:** Design technology to enhance safety and efficiency of launch pad operations, such as automated fueling systems and environmental monitoring.
- **Space Mission Helping Bots:** Create robots to assist astronauts with repairs, maintenance, scientific experiments, or companionship.
- **Space Exploration Tech:** Develop tools and systems to support space exploration, including planetary surface exploration and deep space travel.
- **Health Monitor for Astronauts:** Design wearable devices or systems for continuous health monitoring of astronauts, including remote diagnostics and vital signs tracking.

### 2. 3D Technology Design Categories

Teams must choose one of the following ideas for their project:

- **3D Printed Prosthetics:** Design and print prosthetic limbs or devices to assist individuals with disabilities.
- **Architectural Models:** Create detailed and functional models of buildings or infrastructure using 3D printing.
- **Educational Tools:** Develop interactive 3D printed models for educational purposes in subjects like biology, chemistry, and physics.
- **Customizable Gadgets:** Design and print customizable electronic gadgets or accessories that serve a specific function or solve a problem.

### 3. Toycathon Categories

Teams must choose one of the following ideas for their project:

- **Educational Toys:** Develop toys that help children learn subjects like math, science, and language in an engaging and interactive way.
- **Sustainable Toys:** Create toys made from eco-friendly materials that promote sustainability and environmental awareness.





- **STEM Toys:** Design toys that encourage interest in science, technology, engineering, and mathematics.
- **Cultural Toys:** Develop toys that represent and teach about different cultures, traditions, and histories from around the world.

#### 4. Best of Waste (BOW) Technology Categories

Teams must choose one of the following ideas for their project:

- **Recycled Robotics:** Build robots or devices using recycled materials to demonstrate the principles of recycling and reusability.
- **Eco-Friendly Products:** Create products from waste materials that can be used in daily life, promoting a circular economy.
- **Art from Waste:** Develop artistic and functional creations using waste materials, highlighting the importance of waste management.
- **Upcycled Gadgets:** Design gadgets or tools using upcycled components, reducing electronic waste and promoting sustainability.

#### 5. Medical Technology Categories

Teams must choose one of the following ideas for their project:

- **Wearable Health Monitors:** Develop wearable devices that monitor vital signs and health metrics in real-time.
- **Telemedicine Solutions:** Create technologies that facilitate remote diagnosis and treatment, improving access to healthcare.
- **Medical Assistive Devices:** Design devices that assist individuals with disabilities or chronic conditions in their daily lives.
- **Health Data Analytics:** Develop tools for analyzing health data to provide insights and improve medical outcomes.

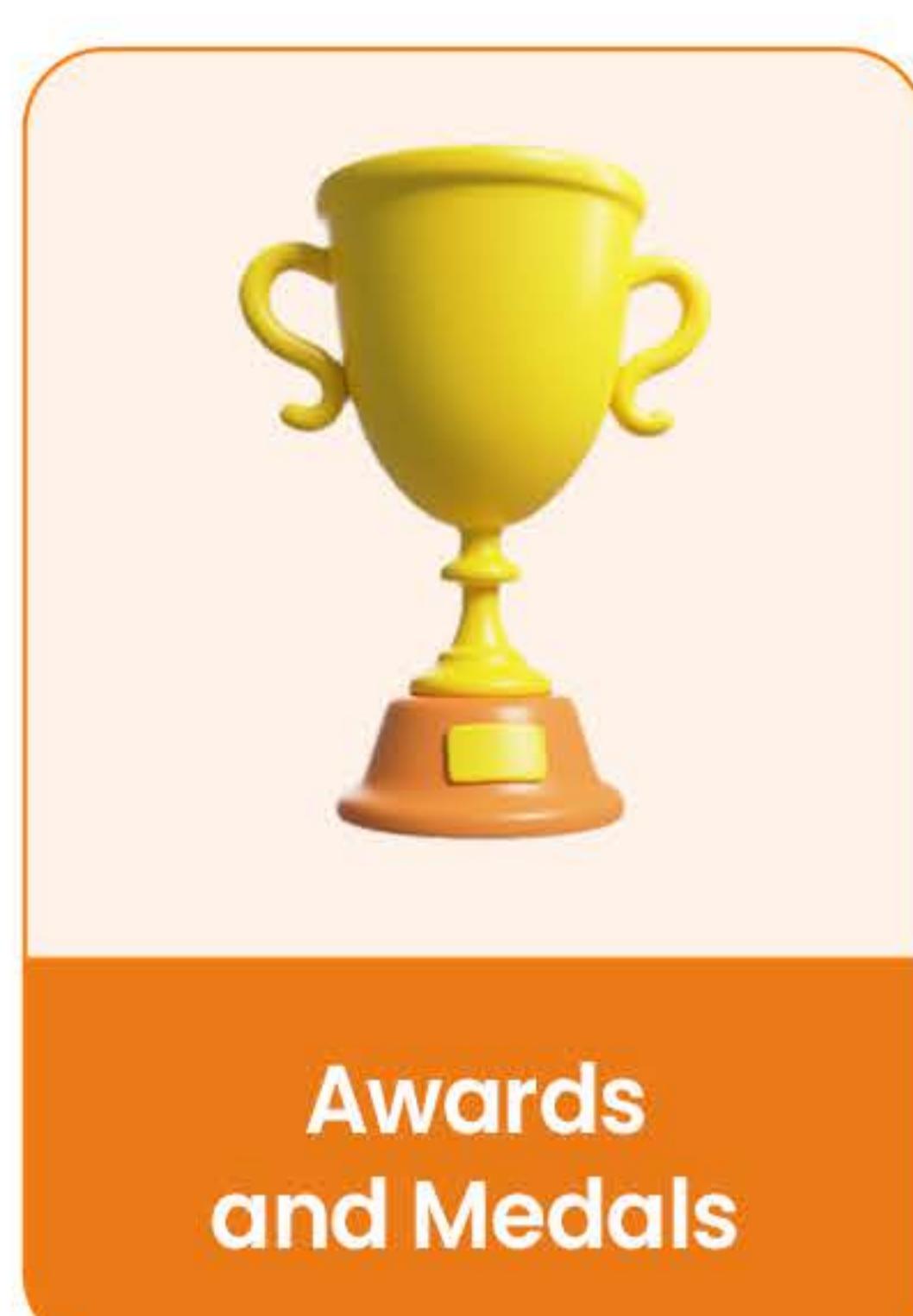


# AWARDS & PRIZES

## STEAM Innovation League



- Top teams will be awarded:



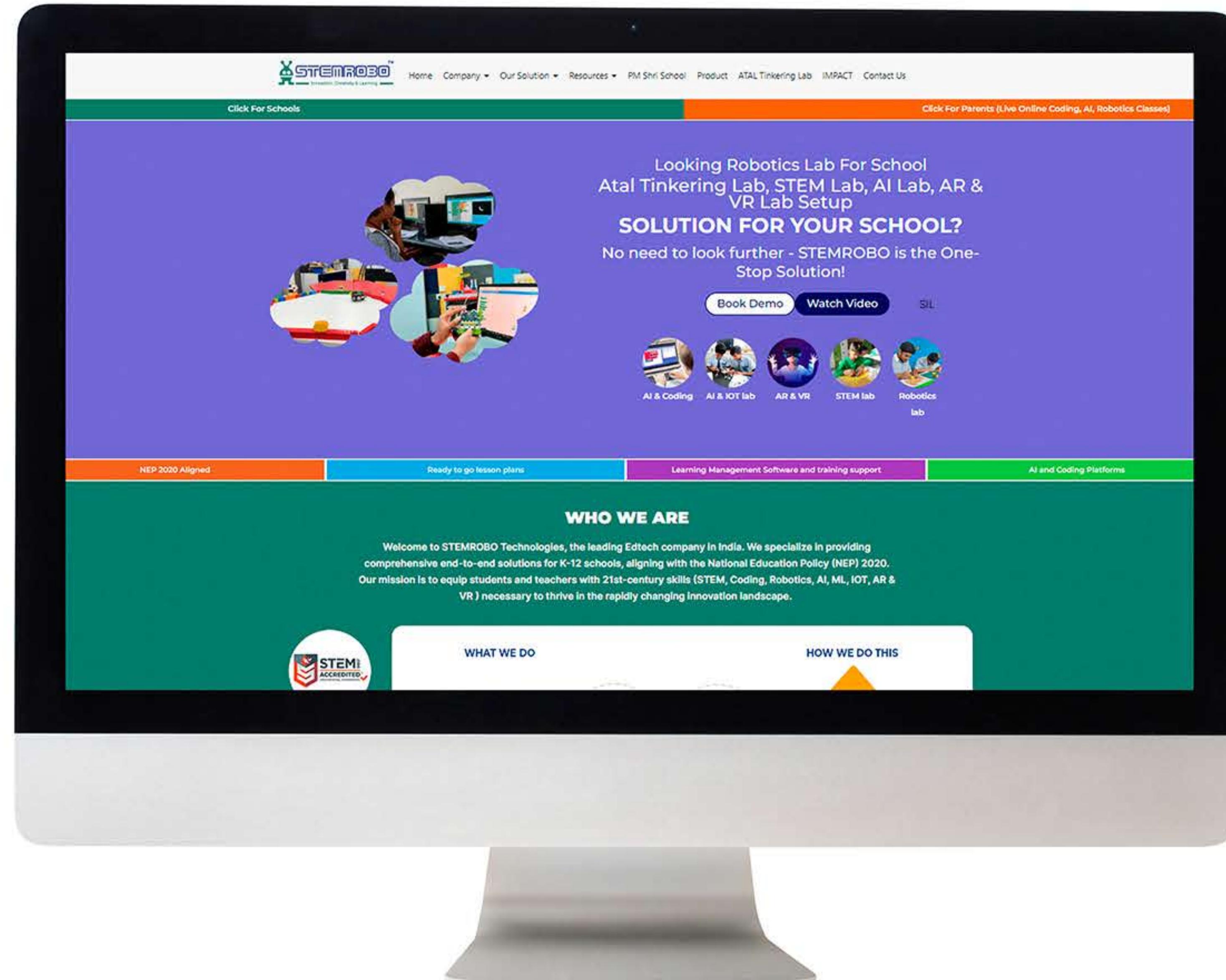
- Projects will be judged based on innovation, adherence to rules & guidelines, and practical applications.
- Special awards for best mentor, innovation and most sustainable project.
- E-Participation Certificate will be awarded to all participants.



# STEPS FOR REGISTRATION



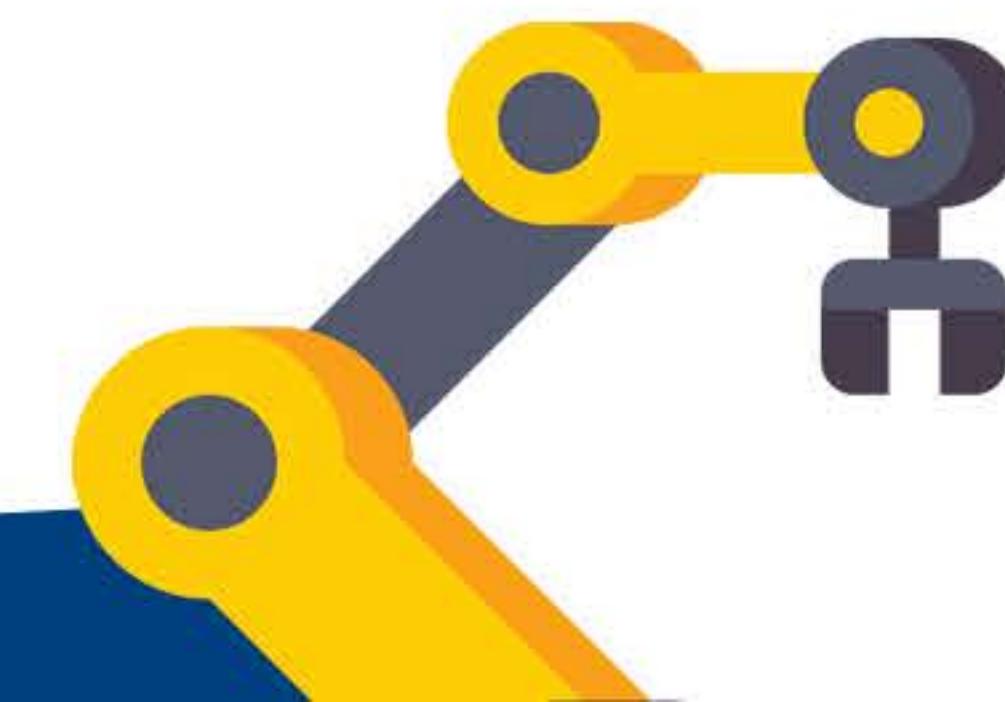
- ▶ Visit <https://www.stemrobo.com/>



- ▶ Click on SIL Menu
- ▶ Visit the SIL Page to Register.



- ▶ Click on the Register button and fill in all the details which will be considered for smooth communication related to SIL.
- ▶ For any query regarding SIL, click on button and chat with us [Chat with us](#)



# KEY DATES AND PHASES

## STEAM Innovation League

- ▶ Registration Start Date :- July 26,2024.
- ▶ Registration and Idea Submission : July 26, 2024 till September 15, 2024.
- ▶ Selection for State Level from best Ideas and SOP – October 3, 2024 (Tentative).
- ▶ State level Competition: 14 October 2024 to 19 October 2024 (Tentative) (virtual round online mode).
- ▶ Results of state level competitions :- October 22, 2024 (Tentative).
- ▶ National level competitions:-November (Tentatively), Dynamic Round.
- ▶ International level competitions:- January (Tentatively).



# SELECTION

## CRITERIA AND GUIDELINES

### First Level Selection

- ▶ **Objective:** Selection of teams for the state level based on their SOP and innovative ideas.
- ▶ **Submission Requirements:**
  - SOP (Statement of Purpose): A detailed document, maximum of 200 words, outlining the team's project idea, goals, and implementation plan.
  - Innovative Ideas: A description of the unique, innovative, and sustainable aspects of the project, highlighting creativity, originality, and sustainability.
- ▶ **Selection Criteria:**
  - Creativity, originality, and sustainability of the idea.
  - Feasibility and practicality of implementation.
  - Clarity and thoroughness of the SOP.
- ▶ **Submission Deadline:** All submissions must be uploaded by the specified deadline on the competition portal.
- ▶ **Notification:** Teams selected for the state level will be notified via email and the competition portal.

### State Level: Virtual Round

- ▶ **Objective:** Present the chosen project to judges in an online format.
- ▶ **Project Requirements:**
  - The project must be at least 60% complete at the time of presentation.
- ▶ **Presentation Guidelines:**
  - Each team will create a 5-minute video covering the following aspects:
    - Introduction with the names of all team members, school, team name, project name, idea behind the project, and the problem being solved.
    - Components used in making the project.
    - Cost involved in the project.
    - Working of the project.
    - Application of the project.
    - Future planning about the project.
  - During the virtual round, the team will present this video followed by a 10-minute Q&A session with the judges.





► **Evaluation Criteria:**

- Project completion and functionality (60% or more).
- Clarity and effectiveness of the video presentation.
- Responses to questions during the Q&A session.

► **Schedule and Notification:**

- The schedule for the state level presentations will be shared with each team after registration.
- Results will be announced on the <https://www.stemrobo.com> website and all associated social media platforms.

### National Championship: Dynamic Round

► **Objective:** Compete in a physical, dynamic setting to showcase the final project.

► **Format:**

- No online presentations; all teams must participate in person.
- Teams will demonstrate their fully completed projects to a panel of judges.

► **Evaluation Criteria:**

- Completion and functionality of the project.
- Innovation, creativity, and sustainability.
- Technical skills and problem-solving abilities.
- Presentation and communication skills.



► **Location:** The location for the National Championship will be exciting and kept a surprise to add to the anticipation and thrill of the competition.

► **Notification:** Teams qualifying for the national championship will be notified via email and the competition portal.

### International Championship: Virtual/Dynamic Mode

► **Objective:** Compete against international teams to showcase the best projects.

► **Format:**

- The championship may be conducted in either a virtual or dynamic mode, depending on the circumstances.
- If virtual, teams will present their projects online.
- If dynamic, teams will participate in person at an international venue.

► **Evaluation Criteria:**

- Overall project excellence, innovation, and sustainability.
- Technical and presentation skills.
- Problem-solving and critical thinking abilities.

► **Notification:** Details of the international championship format and schedule will be provided to the qualifying teams after the national championship.



## ► General Guidelines

### Code of Conduct:

- All participants must adhere to the competition's code of conduct, demonstrating respect, sportsmanship, and integrity.

### Safety and Compliance:

- Projects must comply with all safety regulations and guidelines provided by the competition organizers.

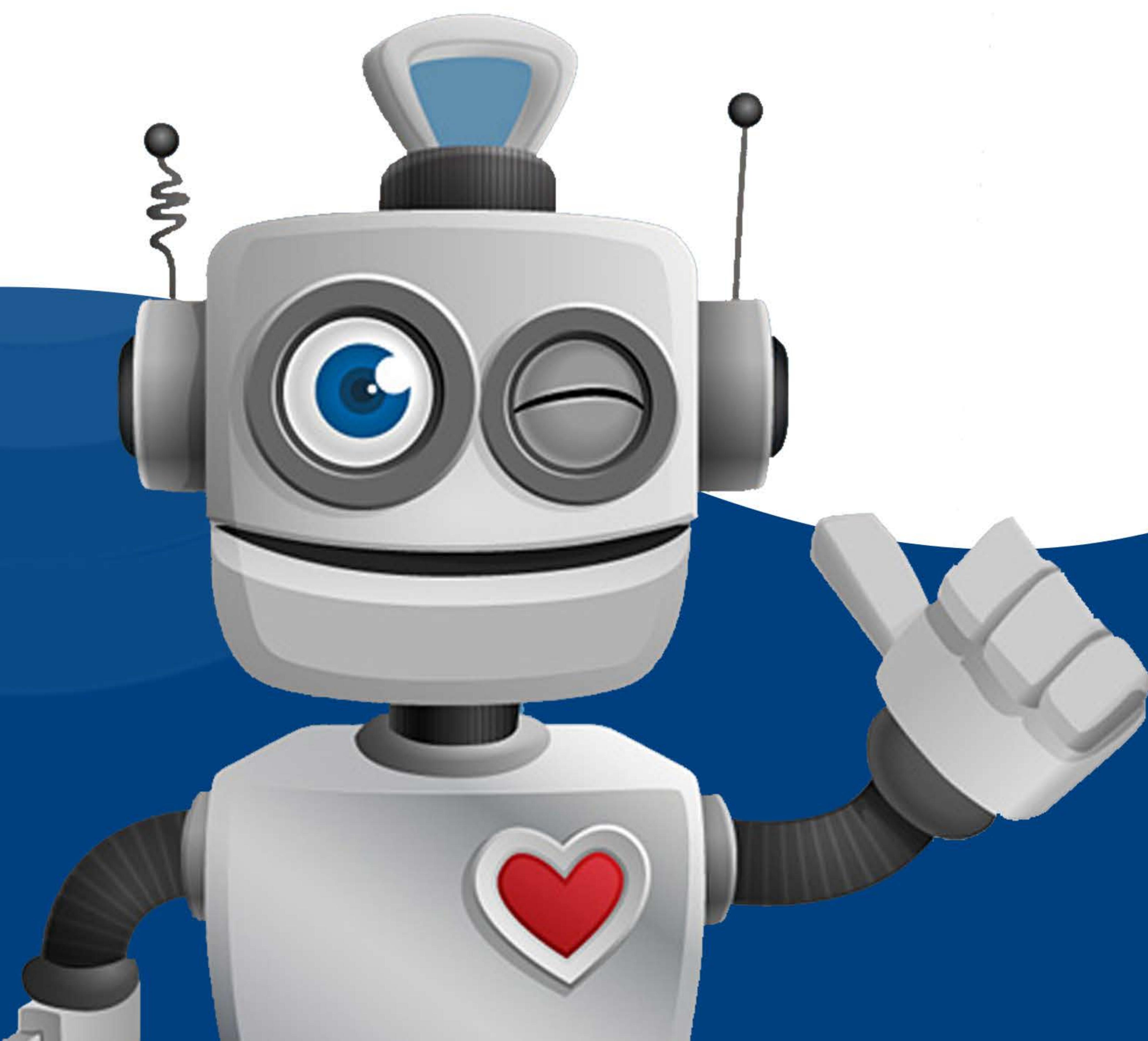
### Support and Resources:

- Teams may seek guidance and support from mentors and teachers but must ensure that their project work is original and primarily student-driven.

### Final Notes:

- The competition aims to foster innovation, creativity, and technical skills among K-12 students.
- Participants are encouraged to think outside the box and push the boundaries of their imagination and technical abilities.

**GOOD LUCK**  
TO ALL THE TEAMS  
**PARTICIPATING IN THE COMPETITION !**



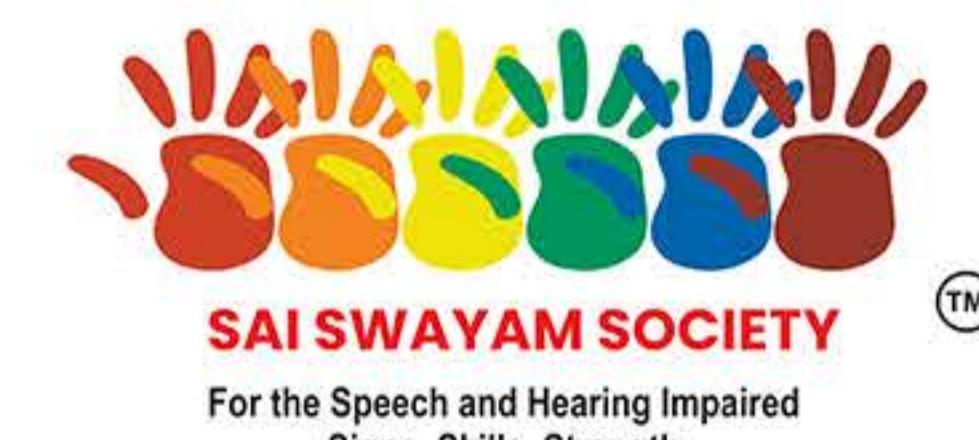
# STRATEGIC PARTNER AND ALLIANCES

Our Industrial and Education-space tie-ups are worth flaunting.



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