INTERNATIONAL ROBOT OLYMPIAD

AI GUARDIANS

Junior Wizards

Be the Safe AI Guardian for tomorrow

Official Rulebook

Welcome ,Junior Wizards!

Young wizards of the AI realm, welcome to AI Guardians!

Your mission is to guide your magical robot on a journey across the enchanted forest of Data Valley, overcoming obstacles and safely delivering the “safeguard spells” that make AI fair, responsible, and trustworthy.

COMPETITION NOMAC

Theme Overview

Welcome to AI Guardians: Junior Wizards, where young minds blend magic and machines to unlock the mysteries of safe and ethical Artificial Intelligence!

Step into the future, where robots are not just machines – they are intelligent companions that support humans in living smarter, safer, and kinder lives.
This year's AI Expo theme invites participants to imagine, design, and present their very own AI Guardian – a robot that embodies the values of helpfulness, responsibility, and trustworthiness. Your robot should demonstrate how artificial intelligence can be built to understand the world, respond thoughtfully to people, and make smart, ethical decisions.
Participants will explore how real-world AI works and apply these ideas creatively through robotics. Your AI Guardian should be designed with:

- A Mind – to sense, collect, and process information from its surroundings.
- A Body – to move safely and interact with the physical world in a controlled, meaningful way.
- A Heart – to reflect positive values like fairness, kindness, and respect for both people and environments.

Your robot should showcase how AI can be more than just smart – it should also be caring, clear, and ethical in its actions. Through your design and demonstration, you will help others understand how AI, when built with intention, can make the world a better place.
Let your AI Guardian be a symbol of what's possible when innovation meets empathy.

Competition Components and Awards' Spaces

🤖 1. Robot Working - Pages 6 to 15

- How well does your robot works the missions?
- You'll get points based on your robot's performance.

👫 2. Team Motivation - Page 16

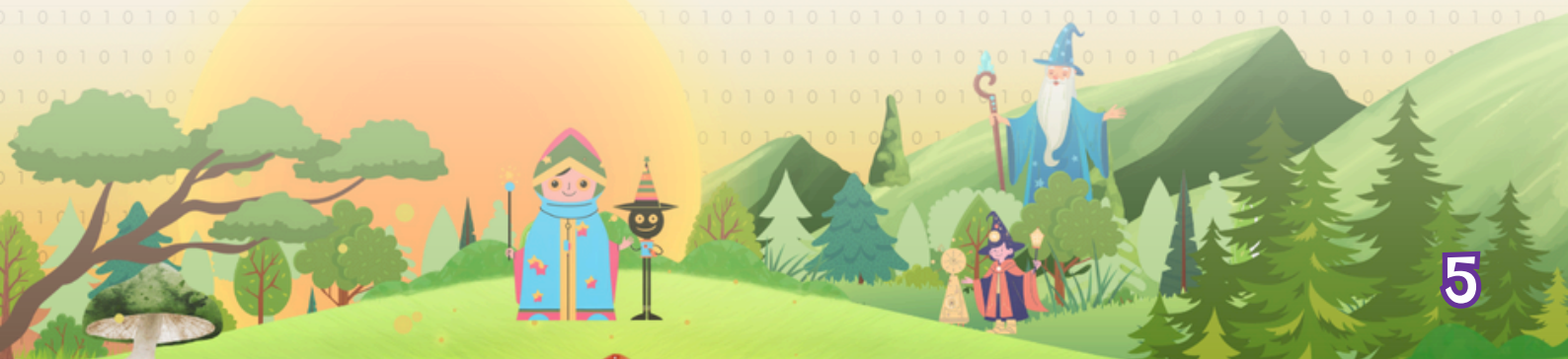
- Joining the AI Guardians challenge is more than just building robots; it's about personal growth.
- Judges will observe if you support each other, share tasks, and maintain positivity, even during setbacks.
- This is also an opportunity for more students to participate as part of "Cheerleading" teams

💡 3. AI Invention Proposal - Page 17

- What's your big idea for using AI to help people in the real world?
- Your team can create a simple drawing or short explanation for a new AI invention – maybe a robot that helps kids learn, keeps the planet clean, or keeps people safe!

🎤 4. Team Presentation - Page 18

- Can you explain your robot and your Invention proposal impressively?
- You'll talk about your robot design, your code, and how your team made decisions. Clear drawings, fun ideas, and great teamwork make this part extra magical.



🤖 1. Robot Game

Let's Discuss the robot Game Details

Robot Design & Strategy

In this challenge, it's not just about what your robot does – it's also about how you build it, plan it, and make it better. You'll get to share your ideas and tell the story of your robot!

You should:

🤖 **Talk about your robot's design** – what makes it special and how it helps with the missions.

💡 **Explain your code** – how your robot knows when to move, turn, or stop.

📋 **Share your plan** – How you approached each mission.

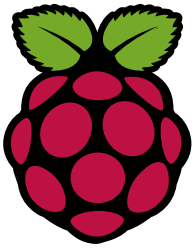
🔧 **Keep testing and improving** – it's okay to make mistakes, just learn from them and try again!

👫 **Show how everyone helped** – building, coding, planning, and testing together as a team.

Robot
Specifications

Your team will work together to design and build a robot using one of the following Robotics kits.

ARDUINO



Robot Constraints:

- Your robot should clearly demonstrate a real-world solution or application (e.g., farming, cleaning, delivery, education, etc.).
- Use sensors or smart features to show how your robot can "think" or respond to its environment.
- Make your robot visually engaging – use colors, labels, or decorations to explain how it works.
- Prepare a short demo (2–3 minutes) to explain your robot's purpose and how it works to visitors or judges.

Showcase Guidelines

At the AI Expo, we celebrate creativity, learning, and innovation – not winning!

This is your opportunity to share what you've built, explain how it works, and show how your robot can help make the world better.

Your robot doesn't need to complete timed missions. Instead:

- Show how your robot solves a real-world problem.
- Share your design process: What did you build? Why did you build it that way?
- Talk about how your robot uses sensors, movement, and simple decision-making.
- Highlight how your robot supports values like safety, fairness, and kindness.

Project Focus Areas

Your robot project can be inspired by real challenges. You may choose one or more of these focus areas:

1. Clean Tech & Environment – A robot that helps keep the earth clean or saves energy.
2. Health & Safety – A robot that can detect danger or remind people to stay safe.
3. Learning & Education – A robot that helps students or teachers in school.
4. Home & Everyday Help – A robot that assists at home with simple tasks.
5. Emotions & Inclusion – A robot that recognizes feelings or helps people feel included.

What to Prepare for the Expo Booth

Each team should prepare:

- The Robot – Working and ready to demo.
- A Display – This could be a poster, slides, or a decorated booth explaining your project.
- A Presentation – A short 2–3 minute talk explaining your idea and how it works.
- Visuals – Diagrams, code screenshots, photos of your building process.
- Optional: A Video – Record your robot in action and show it on a tablet/laptop.

Presentation Tips

Here's how to explain your robot clearly to visitors and judges:

- What does your robot do?
- How did your team design and build it?
- What sensors or smart features does it use?
- What problem does it solve in the real world?
- How does it connect to the theme of being a safe and fair AI Guardian?
- Encourage every team member to speak during the presentation.

Teamwork and Values

At the AI Expo, your attitude, teamwork, and creativity matter just as much as your robot!

- Work together and make decisions as a team.
- Support one another with kindness and respect.
- Stay positive, even if things don't go perfectly.
- Celebrate learning and effort – not just results!

AI Invention Proposal (Optional)

In addition to your robot, your team can share an idea for a future AI invention.
You can:

- Draw your idea.
- Make a simple model or poster.
- Write a short description.
- Show how it can help people and why it's important.

Awards and Recognition

This is a non-competitive event – but we still love to celebrate your work!

Here are a few award categories you might be recognized for:

🏅 Best Real-World Impact
🏅 Most Creative Robot Design
🏅 Outstanding Teamwork
🏅 Inspiring Presentation
🏅 Best AI Invention Idea
🏅 Audience Favorite (based on votes from guests!)

Robot Design Guidelines

At the AI Expo, your robot is a way to share your ideas – not a competition entry. So feel free to be creative and flexible with your design!

- You can use any open-source robotics kit (like Arduino, LEGO, micro:bit, Raspberry Pi, etc.).
- There are no strict size limits – just make sure your robot fits safely and neatly within your booth space.
- Your robot can be fully autonomous, partially automated, or even manually operated – whatever suits your project best.
- Use sensors, motors, lights, or displays to demonstrate how your robot interacts with the world – if applicable.
- Decorate and label your robot to explain what it does and how it helps people.
- Focus on showing a real-world use case – whether it's environmental, educational, safety-related, or something else meaningful.

Getting Ready for the Expo

To prepare:

- Plan your robot's role and what it should demonstrate.
- Build and test your robot well in advance.
- Assign roles: Who will speak? Who sets up the display?
- Practice your explanation.
- Pack everything you need: robot, charger, poster, laptop/tablet (if using), decorations, etc.

Judging Criteria

Judges will look at:

- Clear explanation of your idea
- Connection to the theme (AI Guardian)
- Use of sensors and smart features
- Teamwork and student involvement
- Creativity in design and presentation
- How well your robot matches real-world needs
- Total two judging rounds

Optional: Cheerleading Squad

Students not directly building the robot can still be involved!

- Design banners, chants, or signs to support your team.
- Greet visitors and explain the booth.
- Help organize your materials and display.
- A special cheerleading recognition may be awarded for school spirit and enthusiasm.

Expo Layout and Booth Info

Each team will get a designated booth space.

- Power supply: will not be provided
- Teams must arrive by 8:30
- Booth Setup from 10:00 -11:00

You'll set up your robot, posters, and materials before guests and judges arrive. Keep your area clean and welcoming!

Presentation Time & Q&A

Each team will get 5–7 minutes total during the Expo:

- 3–4 minutes to present your project:
- Share your robot's purpose, how you built it, and what problem it solves.
- 2–3 minutes for judges' questions:
- Be ready to explain how your robot works, what you learned, and how your team collaborated.

Helpful Tips:

- Let all team members speak – teamwork matters!
- Practice explaining your idea in simple words.
- You can use posters, props, or even a short video to help explain.

Thank You, Junior Wizards!

You've entered the world of AI Guardians, where being smart is important – but being fair, kind, and thoughtful is even better.
We hope this journey helped you:

- Learn how robots and AI work
- Think about how technology affects people
- Work together and solve real problems
- Share your ideas proudly

Keep inventing, keep dreaming – the future needs your imagination!

👫 2. Team Motivation

Team Motivation & Values

In the world of AI Guardians, success isn't just about completing missions – it's also about how you work together, share ideas, and support one another on your journey.

Your team should:

🤹‍♂️ **Collaborate** like a circle of wizards, combining your unique strengths to explore and overcome its challenges.

✨ **Think creatively and solve problems wisely**, whether you're building your robot, casting code spells, or navigating tricky paths.

💫 **Treat fellow wizards with kindness and respect**, making sure everyone feels included, heard, and valued – both within your team and among others.

🎉 **Enjoy the adventure!** Celebrate every small victory, learn from the unexpected, and make this magical quest one to remember.

Cheerleading Rules:

- Teams have the optional opportunity to bring one cheerleading group of **maximum 2-3 students**. These students can be either members of the competing team or different students.
- A **special award** will be given to the most enthusiastic and creative cheer team, so get your motivators ready and bring the energy!

💡 3. AI Invention Proposal

Team AI Invention Proposal

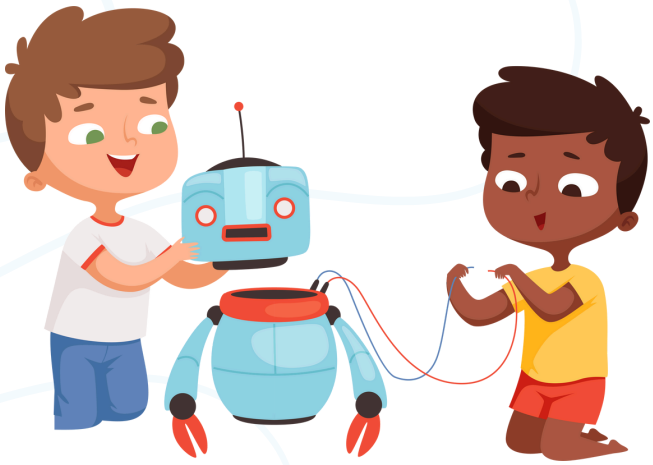
Your team can create a simple drawing or short explanation for a new AI invention – maybe a robot that helps kids learn, keeps the planet clean, or keeps people safe!

You should:

- Brainstorm with your team on AI inventions you want to see invented
- Choose an idea and search more about it
- Prepare how you will explain it to the judges

This mission encourages you to combine creativity, AI, and responsibility in a unique and expressive way.

- you will have a chance to talk about your proposed invention during the team presentation.
- Creating a prototype is not mandatory, it is up to your team to decide the best way to explain and impress!



🎤 4. Team Presentation

Team Presentation

Your team will have 5 minutes to present their work to the Judges.

In this presentation you should:

- Tell the judges about your proposed invention and why it is important!
- Explain your robot design, code, and strategy
- Share your team's process

It's up to your team to decide how you want to present your work. You may use posters, slides, prototypes, or any other creative method – these are optional, not mandatory.

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