



MathWorks[®] Modeling Award for World Robot Olympiad™

Introduction

The MathWorks Award recognizes teams demonstrating innovative and effective use of MATLAB or Simulink in designing their projects for the World Robot Olympiad (WRO®) competition.

Award Prizes and Recognition

The MathWorks Award will be presented to the top team that submits the best solution in the following categories*:

- MathWorks Modeling Award Future Innovators
- MathWorks Modeling Award Future Engineers

*Depending on the number of teams signing up there will be one award overall or one for each category.

Winners will be announced at the WRO awards ceremony and will receive a trophy. They will also be invited to write a blog for MathWorks <u>Student Lounge Blog</u>, featured on the MathWorks Student Instagram and shared by WRO. In addition, winning teams will participate in an exclusive 4-hour session with a MathWorks expert engineer to further develop their skills and knowledge.

Award Criteria and Eligibility

The MathWorks Award is open to all teams in the Future Innovators and Future Engineers categories. To apply for the award:

- Future Innovators teams must include a 2-page section in their project report.
- Future Engineers teams must share their models and code on GitHub, along with clear and effective documentation. The README file should include welldocumented explanations and illustrations to help reviewers understand the project.

The report/README should explain how the team used <u>MATLAB and/or Simulink</u> or other MathWorks Products in their 2025 project. It should include the following:

- A brief introduction to the problem or challenge being addressed.
- A clear description of the solution and how MATLAB or Simulink were used in the project.
- A link to the Simulink model and any relevant files.
- A summary of testing, deployment, and how results were evaluated.
- Key achievements, lessons learned, and reflections on using MathWorks tools.

The submissions will be evaluated by a panel of judges from MathWorks and WRO based on the rubrics given below.





Scoring Rubric

WRO MATHWORKS AWARD				
Section	Description	Max Points	Score	Comments
Problem Context & Strategy	 Clear introduction of the project goal Description of the problem being solved Overview of strategy, sensor layout, and software architecture Clear explanation of why MATLAB/Simulink was appropriate (include which product or functionality was used and why) 	5		
Innovation and Modeling	 Creative approaches to solving the challenge Effective use of <u>MathWorks Products</u> (e.g., Stateflow, Simulation) Appropriate modeling techniques for challenge complexity 	5		
Test and Verification	 Clear explanation of how the algorithm was tested and deployed on the robot Use of data to validate performance (e.g., plots, videos, metrics) Discussion of insights gained and iteration steps 	5		
Code Quality & Readability	 Code is well-commented and organized Models are readable and structured logically GitHub repo (for Future Engineers category) is navigable and complete 	3		
Report Quality & Product Feedback	 Report/README is clearly written, concise, and complete Team shares potential product enhancements based on their experience with MATLAB/Simulink 	2		
TOTAL		20		





Reference Materials

Request complimentary software and find resources:

https://www.mathworks.com/academia/student- competitions/world-robot-olympiad.html

Webinar Recordings:

https://www.mathworks.com/company/events/webinars/upcoming/series/matlab-and-simulink-for-wro-2025-na-2025.html

Self-Paced Online Courses:

- New to MATLAB? Start here: https://matlabacademy.mathworks.com/details/matlaba
- New to Simulink? Start here: https://matlabacademy.mathworks.com/details/simulink-onramp/simulink
- New to Stateflow? Start here:
 <a href="https://matlabacademy.mathworks.com/details/stateflow-onramp