

Aero Design MathWorks Simulation Award

Introduction

The MathWorks Simulation Award recognizes teams that demonstrate innovative and effective use of MATLAB and Simulink in designing their aircraft for the SAE Aero Design competitions at both the East and West events. This award highlights teams that address aircraft system design challenges using MathWorks tools.

Award Prizes and Recognition

The MathWorks Simulation Award will be given out to the top three teams at each competition that submit the best videos:

- First place: \$500
- Second place: \$300
- Third place: \$200

Winners will be announced at the SAE Aero Design awards ceremony and will receive certificates of achievement. They will also be invited to write a blog with MathWorks, which will be featured on our [Student Lounge Blog](#). All winning entries will be featured on MathWorks Social Media via a collaborative post with teams.

Award Criteria and Eligibility

The award is open to all teams participating in the SAE Aero Design competition. Teams must submit a three-minute video through an official form, demonstrating how MATLAB or Simulink was utilized to address a specific challenge encountered during their project. The video should incorporate the following components:

- A brief introduction to the team, along with the institutions they are representing.
- A description of the problem or challenge that the team was facing.
- A demonstration of the solution or design using MATLAB and Simulink
- A summary of achievements and lessons learned from using MATLAB and Simulink

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

Important Dates

- Submission for Aero Design East: March 1st, 2026
- Submission for Aero Design West: March 16th, 2026

Video Specifications

The Team’s video presentation should showcase their SAE Aero project in the style of an Instagram Reel — engaging, clear, and visually dynamic. This is their chance to highlight their design, teamwork, and creativity in a short, shareable format. Videos must adhere to the following guidelines:

- **Length:** Maximum three minutes.
- **Orientation:** Vertical (9:16) – optimized for Instagram Reels.
- **Resolution:** Minimum 1080x1920 (HD).
- **File Format:** MP4 preferred.
- **Audio:** Clear and balanced narration with no background music.
- **Subtitles:** Strongly recommended — add captions for accessibility and clarity.

Submission Process:

- Teams must upload the video to a cloud storage platform (i.e., Google Drive or OneDrive, etc.) and submit a downloadable video link by completing the appropriate form for their competition by 11:59 pm PST on the designated submission date:
 - [Aero Design MathWorks Simulation Award 2026 \(East\) – Fill out form](#)
 - [Aero Design MathWorks Simulation Award 2026 \(West\) – Fill out form](#)
- Teams must submit videos by sharing links through the above-mentioned forms only.

Scoring Rubric

School Name	Aero Design MathWorks Simulation Award			
Section	Description	Max Points	Score	Comments
Problem Framing & Tool Justification	Did the team: <ul style="list-style-type: none"> • Introduce the challenge they are trying to solve and how it is aligned with the competition problem statement. • Introduce the approach they chose to solve. • Justify the selection of MATLAB & Simulink to solve that problem. 	4		
Modeling and Simulation depth	Did the team: <ul style="list-style-type: none"> • Build meaningful models/scripts to solve the problem. • Modeled or integrated realistic scenarios/conditions. • Use the most suitable/latest features 	6		
Analysis & insight generation	Did the team: <ul style="list-style-type: none"> • Use MATLAB/Simulink to extract design/performance insights through plots/ metrics/ trade studies/ optimization 	4		

	<ul style="list-style-type: none"> Use these insights to improve design decisions? 			
Test and Verification	<p>Did the team:</p> <ul style="list-style-type: none"> Explain how they evaluated their hypothesis/model/algorithms. Explain what insights they gained from their testing (supported with metrics, plots, videos, etc.) Discuss how these validations help them fine-tune their hypothesis/model/algorithms 	3		
Presentation & Reflection on MathWorks tools	<p>Did the team:</p> <ul style="list-style-type: none"> Make a quality presentation with the key points clearly explained? Reflect on what worked well, what was challenging, what features they found useful/lacking in MATLAB/Simulink? 	4		
TOTAL		20		

For any further queries, write us at roboticsarena@mathworks.com