



BEST Simulink Design Award



Award Details for Teams

Attention BEST Robotics Teams,

MathWorks is sponsoring a 'BEST Simulink Design Award' in each BEST region this year. Below are the details for teams to learn more about the award and how to enter.

Award Description

"BEST Simulink Design Award" is open to all teams participating in the competition. The award will be presented to one team in each of the 4 BEST regions (Northern Plains, Frontier Trails, South's, Texas) that best applies the 'Simulink Support Package for VEX' based on the judging criteria and robot performance in the competition.

To apply for the award, teams are required to submit their best Simulink model and a link to a short video describing their program design using Simulink. Teams will submit their entries by completing a form at the following location:

http://www.bestinc.org/simulink_award/form.php

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The entries must be submitted before 11 PM (local time) on the following dates for their respective regions:

Texas BEST– 11/25/2016

Frontier Trails BEST– 11/25/2016

Northern Plains BEST - 11/25/2016

South's BEST – 11/25/2016

Information that teams need to provide when submitting their entry:

- Name of School
- BEST Hub (know which hub you belong to)
- Team Contact
- Team Contact Email Address (**important: all entries are tied to the email address**)
- # Students on the Team
- Simulink Model File (.slx or .mdl file)
- Link to YouTube Video (3 min. maximum)
- Brief Description (256 chars) of how the team used Simulink to program their robot

The winning teams will be awarded all of the following:

- Plaque/trophy titled 'BEST Simulink Design Award – by MathWorks'
- Student Version DVD of the latest release of MATLAB software to all team members (\$99 value) and a MathWorks hat for each team member

The winning teams from the 4 regions will be recognized on the BEST (www.bestinc.org) and their Regional websites.

Entry Guidelines

Following are the guidelines for entry submissions:

- One entry per team is allowed.
- All teams can participate for the award within their region. There will 1 winner per region.

- Every entry should include the following:
 - 1 Simulink model file (*.slx or *.mdl)
 - 1 video link (use YouTube only)
- Robot program design must be created in Simulink. Submissions of programs designed using other software will not be accepted. The submitted Simulink file should not be a pre-built example model or the default program. It should be your own program or a modification of the existing examples or default program.
- The video should be no more than 3 minutes in length and include at least a 1.5 minute overview about the program design (e.g. a screencast of the Simulink model with voice over).
- The deadline for submission the following for each region (before 11 PM local time):
 - **Texas BEST– 11/25/2016**
 - **Frontier Trails BEST– 11/25/2016**
 - **Northern Plains BEST - 11/25/2016**
 - **South’s BEST – 11/25/2016**

Judging Criteria

The award will be given to one team from each region and be based on the judging criteria and robot performance in the competition. The following criteria will be used for judging each entry using a maximum 50pt scale. The video is worth up to 10 points for a total of 60pts possible.

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|---|----------------|
| 1. Simulink Model | |
| Creativity- Innovative, creative and original work | 5 pts. |
| Functionality – Error-free and adheres to the Gatekeeper game tasks | 10 pts. |
| Software Design Practices – Best practices like commenting, block naming etc. | 5 pts. |
| Difficulty and Mastery – Level of Simulink knowledge demonstrated in executing the tasks | 15 pts. |
| Readability - Clean, organized and easy to comprehend | 15 pts. |
| | 50 pts. |
| 2. Short Video (YouTube) | |
| Creativity - Interesting, innovative and informative | 2 pts. |
| Quality of the video – Video making process and technical execution | 1 pts. |
| Concept – Engaging, coherent and appropriate | 3 pts. |
| Clarity – Message is clear and well-communicated | 3 pts. |
| Adherence to Guidelines - Video length and content on Simulink usage | 1 pts. |
| | |
| Total | 10 pts. |