

Robot Design judging *will not* have a competition table or mission models in the judging room.

## ROBOT GAME



## Robot Design Executive Summary (RDES)

An “executive summary” is often used by engineers to briefly outline the key elements of a product or project. The purpose of the Robot Design Executive Summary (RDES) is to give the Robot Design Judges a quick overview of your team’s robot and all that it can do.

Unlike the Core Values Poster, teams do not need to create a poster or written material for the RDES. However, teams may share pictures of the design process and records of strategy sessions, and are strongly encouraged to bring examples of programming (either printed or on a laptop).

Have your team prepare a short presentation (no longer than four (4) minutes) covering the elements below:

1. **Robot Facts** Share a little bit about your robot, such as the number and type of sensors, drivetrain details, number of parts, and the number of attachments. The Judges also like to know what programming language your team used, the number of programs, and the Robot Game mission where your team had the most success.

### 2. Design Details

- a. **Fun:** Describe the most fun or interesting part of robot design as well as the most challenging parts. If your team has a fun story about your robot please feel free to share.
- b. **Strategy:** Explain your team’s strategy and reasoning for choosing and accomplishing missions. Talk a little bit about how successful the robot was in completing the missions that were chosen.

- c. **Design Process:** Describe how your team designed their robot and what process they used to make improvements to the design over time. Briefly share how different team members contributed to the design.
- d. **Mechanical Design:** Explain the robot’s basic structure. Explain to the Judges how the robot moves (drivetrain), what attachments and mechanisms it uses to operate or complete missions, and how your team makes sure it is easy to add/remove attachments.
- e. **Programming:** Describe how your team programmed the robot to ensure consistent results. Explain how the team organized and documented programs. Mention if the programs use sensors to know the location of the robot on the field.
- f. **Innovation:** Describe any features of the robot’s design that the team feels are special or clever.

Remember that the Robot Design judging session is an interactive interview process and should not rely on a video of the robot to substitute for the interview and Q & A time. A video should only supplement a live presentation and not be a substitute for a one.

An 11x17” laminated printed picture of the game table will be available for teams to refer to when explaining their robot’s path.