BEFORE WE BEGIN

BEST PRACTICES

This is for YOU - the Coaches. Please ask questions when you have them.

- Utilize the Chat
  - Share Pro Tips

- Take Breaks

- Ask Questions in the Chat

- Be Respectful
JUDGING DEMYSTIFIED
TAKEAWAYS FOR COACHES

Understanding of the Judging Process

Coach-focused tour of the updated Judge Guide
The Judging Process gives students an opportunity to:

- practice written communication skills through the Engineering Notebook
- practice verbal communication skills through the Team Interview
- demonstrate the values of the REC Foundation Code of Conduct and Student-Centered policies

Judging recognizes and celebrates what teams have learned and the hard work they have put into the robotics competition as an educational activity

Judged awards can qualify teams to higher levels of competition
THE ETHOS OF JUDGING
CORE PRINCIPLES FOR JUDGES AND TEAMS

JUDGES
Confidentiality
Student-Centered Teams
Team Ethics and Conduct
Youth Protection
Impartiality
Consistency
Inclusion
Balance
Integrity
Qualitative Judgement

TEAMs
Identify the Problem
Brainstorm Solutions
Select Best Solution
Build Prototype
Test Solution
Repeat the Process
Student Centered
Robot Build
Robot Programming
Game Strategies
Teamwork
Professionalism
Communication
Project Management

A Conversation between Students and Judges
Not a Prepared Presentation

Engineering Notebook Is by the Team, for the Team
Not a presentation document for Judges

To Win a Judged Award
There Is No Magic Formula or Template
# Quick Judging Overview

## The Judge Volunteer Roles

### Event Partner

- Overall responsibility for event success
- Recruits Judge Advisor who can effectively manage the judging process, and sufficient Judges for the number of teams at the event
- Provides space and supplies for deliberations

### Judge

- Evaluates teams to determine eligibility for judged awards
- Conducts one or more activities at the event, as assigned by the Judge Advisor:
  - Evaluate Engineering Notebooks
  - Interview teams
  - Observe teams
  - Present awards
- All Judges work together to deliberate award winners

### Judge Advisor

- Organizes and oversees the overall judging process at an event
- Prepares a judging schedule based on event size and agenda
- Manages conflicts of interest of Judge volunteers with teams at the event
- Facilitates deliberations and delivers final award winners to Event Partner
QUICK JUDGING OVERVIEW

MECHANICS OF THE JUDGING PROCESS

- Event Partner and Judge Advisor develop judging schedule to match event agenda
- Judges review and rank Engineering Notebooks according to overall quality
- In order to interview every team, Judge volunteers are assigned to subsets of teams to interview
- Each Judge group selects top candidates for each award from their subset of teams
- Small Judge groups come together to deliberate and nominate the final candidates for each judged award
- There may be additional interviews and observations of finalist teams
- At the end of Qualifying Matches, performance data is factored in for some awards
- Awards are usually presented at the conclusion of the event during or after finals
QUICK JUDGING OVERVIEW

A TEAM-CENTRIC VIEW OF THE JUDGING PROCESS

TEAM TRACK
- Engineering Notebook Submissions
- Team Interviews and Matches
- Finals Matches

JUDGE TRACK
- Engineering Notebook Judging
- Team Interviews and Observations
- Deliberations and Observations
- Awards
2022-2023 JUDGE GUIDE
A CURATED TOUR
To provide a resource that helps make the Judging Process

- easier to understand
- more consistent from event-to-event
- easier to accomplish with improved tools and instructions
2022-2023 JUDGE GUIDE

WHAT IS UNCHANGED

- Overall judging process
- Ethos of the judging process
- Judge volunteer roles
- All teams at an event should have equal opportunity to be judged
- Submission of Digital Engineering Notebooks
- Notebook requirements for certain awards
- Only official rubrics and award descriptions are to be used
2022-2023 JUDGE GUIDE
NEW AND UPDATED!

- Verbiage changes to Award Criteria & Descriptions
- Clarified Descriptions of judging processes, including step-by-step descriptions
- Team Interview and Engineering Notebook Rubrics are more closely aligned with Award Criteria
- New tools added to aid Judges, including a note-taking form, a one-page reference sheet, and award nominee ranking sheets
- Remote Judging explained in its own section
**RUBRIC: TEAM INTERVIEW**

**UPDATED AND IMPROVED**

- Removed reference to the Engineering Notebook as part of the Team Interview
- Added criteria to represent **all** Judged Awards
- Award names identify which criteria are linked to which awards
- Added criterion for team attributes that may not ‘fit’ other award criteria
- Reworded all criteria descriptions for ease of use by judges and for teams to prepare
- Added space for notes

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### Team Interview Rubric

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Expert-Level (8 points)</th>
<th>Proficient-Level (6 points)</th>
<th>Emerging-Level (0 point)</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENGINEERING DESIGN PROCESS</strong>&lt;br&gt;60 points</td>
<td>Students clearly explain all aspects of their design process.</td>
<td>Students can explain most aspects of their design process.</td>
<td>Students can explain only limited aspects of design process.</td>
<td>8</td>
</tr>
<tr>
<td><strong>TEAM STRATEGIES</strong>&lt;br&gt;Design: 10 points</td>
<td>Students explain the overall evolution of their game strategy.</td>
<td>Students can explain their current strategy with limited evidence of evolution.</td>
<td>Students can explain their current strategy without evidence of evolution.</td>
<td>6</td>
</tr>
<tr>
<td><strong>ROBOT DESIGN</strong>&lt;br&gt;Robot: 10 points</td>
<td>Students can fully explain the evolution of their robot design to the current design.</td>
<td>Students can provide a limited explanation of why the current robot design was chosen, but shows limited evolution.</td>
<td>Students can describe why the current robot design was chosen, but with limited evidence.</td>
<td>0</td>
</tr>
<tr>
<td><strong>ROBOT BUILD</strong>&lt;br&gt;Build: 10 points</td>
<td>Students can fully explain the build construction. Details of the robot build is evident.</td>
<td>Students can fully explain the build. Students can describe how the current robot build is evident.</td>
<td>Students can describe how the current robot build is evident, but with limited evidence.</td>
<td>0</td>
</tr>
<tr>
<td><strong>ROBOT PROGRAMMING</strong>&lt;br&gt;Code: 10 points</td>
<td>Students can explain how their team has implemented power-ups on their robot programming.</td>
<td>Students can explain how their team has implemented power-ups on their robot programming.</td>
<td>Students cannot explain how their team has implemented power-ups on their robot programming.</td>
<td>0</td>
</tr>
<tr>
<td><strong>TEAM AND PROJECT MANAGEMENT</strong>&lt;br&gt;Management: 10 points</td>
<td>Students can explain how their team has managed the design and development of the robot. Students answer questions independently.</td>
<td>Students can explain how their team has managed the design and development of the robot. Students answer questions independently.</td>
<td>Only one person answers questions on behalf of the team.</td>
<td>0</td>
</tr>
<tr>
<td><strong>TEAMWORK AND COMMUNICATION PROFESSIONALISM</strong>&lt;br&gt;Professionalism: 10 points</td>
<td>Students answer questions respectfully and courteously. Students work well with others. Students work well with each other. Students work well with others.</td>
<td>Students answer questions respectfully and courteously. Students work well with others. Students work well with each other. Students work well with others.</td>
<td>Students do not answer questions respectfully and courteously. Students work well with others. Students do not work well with each other. Students do not work well with others.</td>
<td>0</td>
</tr>
</tbody>
</table>

**SPECIAL ATTRIBUTE**

- Any team that displays any special attributes, accomplishments, or extraordinary effort in overcoming challenges may award extra points. Under the RUBRIC, please indicate.
RUBRIC: ENGINEERING NOTEBOOK

- Highlighted the **Engineering Design Process** Criteria in criteria list
- Teams earn 5 points for evidence that Notebook creation is contemporaneous with the design process
- Format-neutral verbiage replaces previous 5-point “Bonus” for a bound notebook that put digital notebooks at a disadvantage
- Cleaner formatting and more instructive language for ease-of-use by judges and to help teams prepare
AWARDS
NEED TO KNOW
“CAN MY TEAM . . .?”

Three Award Types
1. Performance-based awards
2. Judged awards
3. Individual recognition awards

<table>
<thead>
<tr>
<th>At Each Event, Teams Can ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earn Performance Awards</td>
</tr>
<tr>
<td>and a Judged award</td>
</tr>
<tr>
<td>Only one Judged award</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At Multiple Events, Teams Can ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earn any award</td>
</tr>
<tr>
<td>(even if won previously)</td>
</tr>
<tr>
<td>Qualify for Regional Championship</td>
</tr>
</tbody>
</table>
## WHAT ARE THE JUDGED AWARDS?

### THE REQUIRED AWARDS

<table>
<thead>
<tr>
<th><strong>DESIGN AWARD</strong></th>
<th><strong>EXCELLENCE AWARD</strong></th>
<th><strong>JUDGES AWARD</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Engineering Notebook Required)</td>
<td>(Engineering Notebook Required)</td>
<td></td>
</tr>
<tr>
<td>Be at or near the <em>top of</em> Engineering Notebook Rubric rankings</td>
<td>All Design Award criteria, plus:</td>
<td></td>
</tr>
<tr>
<td>Exhibit a <em>high-quality</em> team interview</td>
<td>Be ranked in the <em>top 10 or top 30%</em> of teams in Qualification Rankings</td>
<td></td>
</tr>
<tr>
<td>Team demonstrates <em>effective management of time, talent, and resources</em></td>
<td>Be ranked in the <em>top 5 or top 20%</em> of teams in Robot Skills Rankings</td>
<td></td>
</tr>
<tr>
<td>Team interview demonstrates their ability to explain their <em>robot design and game strategy</em></td>
<td>Be a candidate in consideration for other Judged Awards</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Team displays <em>special attributes, exemplary effort, and perseverance</em> at the event</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Team <em>overcomes an obstacle or challenge</em> and <em>achieves a goal or special accomplishment</em> at the event</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Earned by a team that distinguishes themselves in some way that may not fit in other award categories</td>
</tr>
</tbody>
</table>
## WHAT ARE THE JUDGED AWARDS?

### OPTIONS FOR EVENTS

<table>
<thead>
<tr>
<th>AWARD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| **INNOVATE AWARD**  
(Engineering Notebook Required) | Recognizes an effective and well documented design process. The team who earns the Innovate Award should be among the top contenders for the Design Award. The submission of an Engineering Notebook is a requirement for the Innovate Award. |
| **THINK AWARD** | Recognizes the most effective and consistent use of coding techniques and programming design solutions to solve the game challenge. |
| **AMAZE AWARD** | Recognizes a consistently high-performing and competitive robot. |
| **BUILD AWARD** | Recognizes a well-constructed robot that is constructed with high attention to detail to hold up to the rigors of competition. |
| **CREATE AWARD** | Recognizes a creative engineering design solution to one or more of the challenges of the competition. |
| **ENERGY AWARD** | Recognizes outstanding enthusiasm and excitement at the event. |
| **INSPIRE AWARD** | Recognizes passion for the competition and positivity at the event. |
| **SPORTSMANSHIP AWARD** | Recognizes a high degree of good sportsmanship, helpfulness, and positive attitude both on and off the competition field. |

**Note:** Full Award Descriptions Are Found In the Judge Guide
**JUDGED AWARDS ONE PAGE REFERENCE SHEET**

ALL IN ONE PLACE!

Thumbnail *descriptions* of each Judged Award for quick reference and side-by-side comparison

**Interview Checklist** and Best-Practice **Interview Tips** facilitate consistency among interviews... all on one page!!

Left side: Judge Guide page 37
JUDGE GUIDE
UPDATES

Updates

August 15 and December 15

Email

judging@roboticseducation.org

Official Judging Q & A

https://www.robotevents.com/judging/2022-2023/QA
THANK YOU

2022 REC FOUNDATION COACH SUMMIT