

**Team Name:** \_\_\_\_\_ **Team Number:** \_\_\_\_\_  Elementary  Middle **Judges:** \_\_\_\_\_

For Design Award details, review the Awards Appendix on [www.roboticseducation.org/vex-iq-challeng/viq-current-game/](http://www.roboticseducation.org/vex-iq-challeng/viq-current-game/)

**Directions:** Mark the descriptor that best describes the team's performance for each criterion.

The Engineering Notebook ...					
Criteria	Expert (3 points)	Proficient (2 points)	Emerging (1 point)	Points	
Clear document of Robot Design Process	Identify the challenge(s)	Describes the challenge at the start of each design process iteration with words and pictures, and states the teams' goals for accomplishing that challenge	Identifies the challenge at the start of each design cycle	Does not identify the challenge at the start each design cycle	
	Brainstorm solutions	Lists 3 or more possible approaches to the challenge with labeled diagrams	Lists 1-2 possible approaches to the challenge.	Does not list the results of the brainstorming sessions.	
	Select the best approach and plan	Explains why the selected approach was chosen and why the other alternatives were not chosen. Fully describes the plan	Explains why the selected approach was chosen. Mentions the plan	Does not explain why the selected approach was chosen	
	Build, Program and Test	Records the building, programming and test processes and the test results in such detail that someone outside the team could recreate the robot by following the steps in the notebook	Documents the key steps to build, program and test the robot and the key test results	Leaves out important information about building, programming and testing the robot	
	Repeat process steps, if needed	Contains a complete history of the design process iterations for the season that resulted in the current robot design, repeating the steps above for each iteration	Describes most of the design process iterations, including most of the steps for each iteration	Leaves out most of the design process iterations	
Complete and organized document of Robot Design Process	Contains Project and Team Assignments, Entries from team meetings, with goals, decisions and accomplishments, and recorders' names or initials and dates. Indexed so that anyone can easily locate any needed information	Contains most of the information listed at left. Organized so that team members can locate most needed information	Leaves out important information and/or is poorly organized		
Team demonstrates effective management of skills, time, and material resources	Includes an overall project timeline against which progress is checked regularly as well as daily goals and accomplishments. Documents the assignments of each team member based on skills and availability.	Documents most daily goals and accomplishments and most team member assignments	Does not document the team's management of key resources		
Describe the best features of this <b>Engineering Notebook</b> :				<b>Total Points</b>	
<hr/> <b>Total the number of points earned from Notebook (Add 3 pts for a bound notebook &amp; enter the number on page 2 of this rubric):</b>					

*Rubrics are confidential judging documents and should not be returned to the team, coach, or Event Partner. Rubrics should be destroyed immediately after the Judge Advisor has recorded the winning team.*

## Robot Design Interview

Criteria	Expert (3 points)	Proficient (2 points)	Emerging (1 point)	Points
Engineering Notebook is a clear, complete, and organized document of the robot design process	Students can explain clearly the robot design process and how they documented their use of the process in their Engineering Notebook	Students can explain most aspects of the design process and how they documented their use of the process	Students can explain only limited aspects of the design process and/or how they documented their use of the process	
Team demonstrates effective management of skills, time, and material resources	Students can explain how team progress was tracked against an overall project timeline and how students were assigned to tasks based on their skills and availability	Students can explain how team progress was monitored and how students were assigned to tasks	Students cannot explain how team progress was monitored and/or how students were assigned to tasks	
Students understand and explain how they developed an effective game strategy and robot design	Students can describe multiple game strategies and robot designs that were considered, and they can fully explain how and why the current game strategy and robot design were selected	Students can describe at least two strategies and designs that were considered, and can explain how or why the current strategy or design were selected	Students can only describe the current strategy and design, or they cannot explain how and why the current strategy or design were selected	
Students demonstrate teamwork and effective communication skills	Students demonstrate high level of teamwork, fluency, and courtesy	Students demonstrate some teamwork, fluency, and courtesy	Students demonstrate limited teamwork, fluency, and courtesy	
Describe the best features of this <b>Robot Design Interview</b> :	<b>Total the number of points earned from Student Interview and Discussion:</b>			
	<b>Total the number of points earned from Notebook: (including bonus for bound notebook)</b>			
	<b>Total the number of points combined:</b>			

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