

# Engineering Notebook Rubric

Team Number: \_\_\_\_\_ Judge Name: \_\_\_\_\_



<b>Organization &amp; Professionalism of the Entire Notebook (15 points)</b>					
Criteria	Exemplary (3 points)	Proficient (2 points)	Developing (1 point)	Beginning (0 points)	Points
<b>Cover and Team Information</b>	Complete and professionally presented	Complete team information	Basic information only	Missing or incomplete	
<b>Table of Contents</b>	Thorough and consistently updated	Mostly complete	Partially updated	Missing	
<b>Pagination and Chronology</b>	Notebook easy to follow, organized chronologically or by section	Mostly chronological or organized by section	Some pages missing/out of order; sections unclear	Inconsistent; hard to follow	
<b>Dates and Signatures</b>	Every entry dated and attributed	Usually present	Inconsistent	Rarely used	
<b>Professional Presentation</b>	Highly professional and polished	Neat and organized	Adequate	Difficult to read	
<b>Engineering Design Process of Robot and/or Coding Projects (25 points)</b>					
Criteria	Exemplary (4-5 points)	Proficient (3 points)	Developing (2 points)	Beginning (0-1 point)	Points
<b>Problem Definition</b>	Thorough analysis and constraints	Clear requirements	Basic goals identified	Minimal	
<b>Brainstorming</b>	Extensive ideation with comparisons	Multiple concepts documented	Some ideas recorded	Little evidence	
<b>Design and Coding Decisions</b>	Decisions supported with evidence	Most decisions justified	Some rationale	Decisions unexplained	
<b>Prototyping</b>	Systematic prototyping and evaluation	Multiple iterations	Some prototypes	Few prototypes shown	
<b>Iterative Process</b>	Highly professional and polished	Neat and organized	Some revisions	Little evidence	
<b>Design Content and Technical Depth of Robot and/or Coding Projects (20 points)</b>					
Criteria	Exemplary (4 points)	Proficient (3 points)	Developing (2 points)	Beginning (0-1 point)	Points
<b>Sketches and Diagrams</b>	High-quality annotated drawings and/or diagrams	Detailed sketches	Basic sketches	Few or absent	
<b>Technical Explanations</b>	Deep engineering and coding reasoning	Clear technical descriptions	General descriptions	Minimal	
<b>Calculations</b>	Extensive quantitative analysis	Appropriate calculations	Some calculations	Rarely included	
<b>CAD/Build/Code Documentation</b>	Comprehensive records of builds and/or coding projects	Good documentation	Some screenshots/photos	Little evidence	
<b>Use of Evidence</b>	Strong evidence throughout	Data supports decisions	Limited evidence	Unsupported claims	

*All judging materials are strictly confidential. Do not share beyond Judges and Judge Advisor. Destroy at the conclusion of the event.*

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Testing, Analysis, and Iteration for Robot Design and Coding Projects (15 points)					
Criteria	Exemplary (4 points)	Proficient (3 points)	Developing (2 points)	Beginning (0-1 point)	Points
Test Procedures	Well-designed experiments	Defined procedures	Informal	Missing	
Data Collection	Extensive quantitative data	Adequate records	Some data	Little data	
Analysis & Improvements	Deep interpretation of results and evidence of data-driven iteration	Meaningful analysis and iterative improvements	Basic observations with some improvements	Minimal analysis with few changes	
Team Management and Project Documentation (9 points)					
Criteria	Exemplary (3 points)	Proficient (2 points)	Developing (1 points)	Beginning (0 points)	Points
Team Roles	Roles and responsibilities evolved	Clearly defined	Briefly described	Not documented	
Meeting Notes	Thorough and actionable	Regular	Occasional	Rare	
Schedules and Planning	Comprehensive project management	Adequate planning	Some planning	Minimal	
Reflection and Learning (10 points)					
Criteria	Exemplary (4-5 points)	Proficient (3 points)	Developing (2 points)	Beginning (0-1 point)	Points
Competition Reflections & Failure Analysis	Deep analysis and lessons learned including root-cause analysis	Thoughtful reflections and documented discussions	Brief comments	None	
Future Improvements	Strategic planning and actionable goals	Clear next steps	Some ideas	Limited	
Completeness and Season Narrative (6 points)					
Criteria	Exemplary (3 points)	Proficient (2 points)	Developing (1 points)	Beginning (0 points)	Points
Continuity	Complete season narrative	Mostly complete	Some gaps	Fragmented	
Evidence of Growth	Exceptional story of improvement	Clear progression	Some evidence	Minimal	
				<b>TOTAL</b>	