

Envirobot Challenge Project Judging Rubric

Team Name: _____

Research (20 Points Possible)

Beginning	Developing	Accomplished	Exemplary	Judge's Comments	
Defining Problem: Clear definition of the problem being addressed.					
Unclear; few details (1)	Partially clear; details missing (2)	Mostly clear; detailed (3)	Clear; very detailed (4)		
Connect with Environmental Health mentor: Evidence of partnership with one or more professionals working in a field related to issue.					
Ask partner questions to identify problem (1)	Partner recommends models to review and analyze (2)	Partner mentors team on solution development (3)	Mentor works with team to evaluate effectiveness of solution (4)		
Sources of Information: Types (e.g. books, magazines, websites, reports and other resources) and number of quality sources cited, including professionals in the field.					
one type of information cited; minimal sources (1)	two types of information cited; several sources (2)	three types of information cited; many sources, including professionals (3)	four(+) types of information cited; extensive sources, incl. professionals (4)		
Problem Analysis: Depth to which the problem was studied and analyzed by the team.					
minimal study; no team analysis (1)	minimal study; some team analysis (2)	sufficient study and analysis by team (3)	extensive study and analysis by team (4)		
Review Existing Solutions: Extent, to which existing solutions were analyzed by the team, including an effort to verify the originality of the team's solution.					
minimal review; no team analysis (1)	minimal review; some team analysis (2)	sufficient review and analysis by team (3)	extensive review and analysis by team (4)		
Add Column Totals					Total out of 20 Points

Strategy & Innovation (20 Points Possible)

Beginning	Developing	Accomplished	Exemplary	Judge's Comments	
Team Solution: Clear explanation of the proposed solution.					
Difficult to understand (1)	Some parts confusing (2)	Understandable (3)	Easy to understand by all (4)		
Design Process: Degree to which team developed a design plan, produced and tested models, selected among alternative and refined ideas (Asking questions/defining problems, Developing/using models, Planning/carrying out investigation, Analyze/interpret data, Using math/computational thinking, Constructing explanations/defining solutions, Engaging in argument from evidence, Obtaining/evaluating/ communicating Information)					
Reflects 3 or fewer science & engineering practices (1)	Reflects 4 - 5 science & engineering practices (2)	Reflects 6 -7 science & engineering practices (3)	Reflects all 8 science & engineering practices (4)		
Innovation: Degree to which team's solution makes life better by improving existing options, developing a new application of existing ideas, or solving the problem in a completely new way					
Existing solution/application (1)	Solution/application contains some original element(s) (2)	Original solution/application (3)	Original solution/application with the potential to add significant value (4)		
Testing: Degree to which the team tested their idea/innovation before the Challenge Event with others who might benefit from the team's efforts (e.g., focus group, share with others, etc.)					
2 or fewer people provided critical review and corrections made accordingly (1)	4 people provided critical review and corrections made accordingly (2)	6 people provided critical review and corrections made accordingly (3)	8 or more people provided critical review and corrections made accordingly (4)		
Implementation: Consideration of factors for implementation (cost, ease of manufacturing, etc.)					
Minimal factors considered (1)	Some factors considered (2)	Factors well considered; some questions about proposed solution (3)	Factors well considered and feasible solution proposed (4)		
Add Column Totals					Total out of 20 Points

Group Presentation (12 points possible)

Beginning	Developing	Accomplished	Exemplary	Judge's Comments
Advocate in Community: Degree to which the team shared their Project before the tournament with others who might benefit from the team's efforts (<i>must provide evidence/proof</i>)				
shared with one individual (1)	shared with one group (2)	shared with one individual or group who may benefit (3)	shared with multiple individuals or groups who may benefit (4)	
Creativity: Imagination used to develop and deliver the presentation				
minimally engaging OR unimaginative (1)	engaging OR imaginative (2)	engaging AND imaginative (3)	very engaging AND exceptionally imaginative (4)	
Presentation Effectiveness: Message delivery and organization of the powerpoint presentation				
unclear OR disorganized (1)	partially clear; minimal organization (2)	mostly clear; mostly organized (3)	clear AND well organized (4)	
Add Column Totals				Total out of 12 Points

Team Work (12 points possible)

Beginning	Developing	Accomplished	Exemplary	Judge's Comments
Effectiveness: Problem solving and decision making processes help team achieve their goals				
team goals AND team processes unclear (1)	team goals OR team processes unclear (2)	clear team goals and processes (3)	clear processes enable team to accomplish well defined goals (4)	
Efficiency: Resources used relative to what the team accomplishes {time management, distribution of roles and responsibilities)				
limited time management AND unclear roles (1)	limited time management OR unclear roles (2)	excellent time management and role definition allows team to accomplish most goals(3)	excellent time management and role definition allows teams to accomplish all goals (4)	
Kids Do the Work: Appropriate balance between team responsibility and coach guidance				
limited team responsibility AND excessive coach guidance (1)	limited team responsibility OR excessive coach guidance (2)	Good balance between team responsibility and coach guidance (3)	team independence with minimal coach guidance (4)	
Add Column Totals				Total out of 12 Points

Professionalism (12 points possible)

Beginning	Developing	Accomplished	Exemplary	Judge's Comments
Inclusion: Consideration and appreciation for the contributions (ideas and skills) of all team members, with balanced involvement				
unbalanced team involvement AND lack of appreciation for contributions (1)	unbalanced team involvement OR lack of appreciation for contributions (2)	balanced team involvement AND appreciation for contributions of most team members (3)	balanced team involvement AND appreciation for contributions of all team members (4)	
Respect: Team members act and speak with integrity so others feel valued-- especially when solving problems or resolving conflicts				
not evident with majority of team members (1)	evident with majority of team members (2)	almost always evident with all team members (3)	always evident, even in the most difficult situations (4)	
Cooperation: Team competes in the spirit of friendly competition and cooperates with others				
not evident with majority of team members (1)	evident with majority of team members (2)	almost always evident with all team members (3)	always evident, even in difficult situations-- and team actively helps other teams (4)	
Add Column Totals				Total out of 12 Points

Judges Questions (24 points possible)

Beginning	Developing	Accomplished	Exemplary	Judge's Comments
Thoroughness: Provided relevant information and ideas that relate to their research and findings while providing specific examples.				
Unclear; few details. Evidence of knowledge gained missing.	Partially clear; details missing. Broad example provided to support. Minimal evidence of knowledge gained.	Mostly clear; detailed. Specific examples were provided and evidence of knowledge gained is present.	Clear; very detailed. Specific examples provided and strong evidence of knowledge and skills gained.	
Please Circle the Point Value You Wish to Assign Below				
2 - 4 - 6 Points	8 - 10 - 12 Points	14 - 16 - 18 Points	20 - 22 - 24 Points	
Add Column Totals				Total out of 24 Points

Research	Strategy & Innovation	Group Presentation	Team Work	Professionalism	Judges Questions	Total Score
20	20	12	12	12	24	100