Reverse Engineering
STEM Expo
Judging Evaluation Form

Name _____

Grade _____ Location _____

General Requirements Evaluation*

Presentation Display		Descriptive Document (if present)	
Attractive, easy to read, and layout is in appropriate logical order	ND 1 – 2 – 3 – 4 – 5 NA	Organization is clear and complete without extraneous information.	ND 1 – 2 – 3 – 4 – 5 NA
Visual aids promote understanding	ND 1 – 2 – 3 – 4 – 5 NA	Spelling and grammar correct	ND 1 – 2 – 3 – 4 – 5 NA
Shows project in appropriate detail for understanding by audience	ND 1 – 2 – 3 – 4 – 5 NA	Visual aids promote understanding	ND 1 – 2 – 3 – 4 – 5 NA

Reverse Engineering Category Evaluation**

Display		Other Considerations specific to this category	
Operation of original (assembled) unit is explained adequately	ND 1 – 2 – 3 – 4 – 5 NA	Product selected has appropriate complexity or materials used in the construction.	ND 1 – 2 – 3 – 4 – 5 NA
All disassembled components have been labeled and described accurately	ND 1 – 2 – 3 – 4 – 5 NA	Project scope is reasonable and allows for disassembly to adequate levels.	ND 1 – 2 – 3 – 4 – 5 NA
Function of each part is identified and correct	ND 1 – 2 – 3 – 4 – 5 NA	Disassembly of this product will help the audience understand an unfamiliar operational concept.	ND 1 – 2 – 3 – 4 – 5 NA
Components are presented appropriately to accurately show their location within the completed unit.	ND 1 – 2 – 3 – 4 – 5 NA	Product has been disassembled to accurately represent all components.	ND 1 – 2 – 3 – 4 – 5 NA
The material of composition is identified for each component	ND 1 – 2 – 3 – 4 – 5 NA	Components are identified into sub-assembly groups by purpose (or location).	ND 1 – 2 – 3 – 4 – 5 NA

Descriptive Document (if present)		Cause and effect between and within sub-assemblies is correctly identified.	ND 1 – 2 – 3 – 4 – 5 NA
Images or illustrations of components and how they fit together are presented and appropriate.	ND 1 – 2 – 3 – 4 – 5 NA	Additional steps beyond disassembly are discussed or taken (assembly procedure created, second unit rebuilt, etc.)	ND 1 – 2 – 3 – 4 – 5 NA
Each sub-assembly is defined and its operation explained.	ND 1 – 2 – 3 – 4 – 5 NA	Project shows that the student grasps the purpose of the components and sub-assemblies, and how they work together.	ND 1 – 2 – 3 – 4 – 5 NA
The deconstruction sequence description is complete and accurate.	ND 1 – 2 – 3 – 4 – 5 NA		
Tools used are listed and their use is defined within the sequential listing.	ND 1 – 2 – 3 – 4 – 5 NA		
How the original unit operates based on the disassembled components works is described completely and accurately	ND 1 – 2 – 3 – 4 – 5 NA		

Additional Notes and Comments

Additional Items for Consideration

Safety Considerations	
Team/External Considerations	
Special Category Considerations	

ND: Not Demonstrated, 1: Beginning, 2: Developing, 3: Acceptable, 4: Accomplished, 5: Advanced, NA: Not Applicable

(*See General Entry Rules and Requirements for further information, ** See Category Description for further information)