Judging	T op	of the range: 5	Upper range: 4	Mid-range: 3	Lower range: 2	Bottom range:1		
Criteria	a: Com	olete, Thorough,	Solid understanding	Limited understanding	Minimal information	Component missing,		
	,	Significant	Lacks a few specifics	or scope,	Lacks sufficient detail	not present or		
			but well developed or	Adequate but	Lacks understanding	exceedingly		
			explained overall	insufficient		inadequate		
				understanding or				
				explanation				
EXPE	RIMENI	AL PROJECTS						
		Methodology &	The experiment res	The experiment research question was well defined; a hypothesis is made.				
Cá	Category 1	Project Design	All variables and controls are well defined and appropriate.					
			The scope and limitations of the project are recognized by the exhibitor.					
			The experimental d	esign is presented in detai	il and is reproducible and e	efficient.		
			Appropriate use of	equipment and materials,	including surveys, is evide	ent.		
		Data Collection	Extensive, relevant	data are collected.				
Cá	ategory 2		Data are clearly pre	Data are clearly presented with appropriate units.				
			Extensive observat	Extensive observations and notes are recorded.				
			Data collection is d	Data collection is done with consistent and repeatable methods.				
		Data Presentation	& Data are presented	Data are presented in visual form using graphics, tables, diagrams, models, etc.				
		Analysis	Data are evaluated	Data are evaluated for relevance to original problem.				
Ca	ategory 3		The data are used to answer the experimental question.					
			The relationships b observations.	The relationships between variables are clearly discussed and supported with data and observations.				
			The hypothesis is a	ccepted or rejected and d	iscussed.			
		Background & Top	ic Evidence of signific	ant research is provided in	ncluding a bibliography.			
Ca	ategory 4	Information	All terms and conc	epts relating to the project	are defined.			

				Ex	xhibitor is able to	discuss topic with ease.			
			Presentation of		The poster is neat and visually pleasing. Information on the poster is well organized.				
	Calegory 5		Project	In					
			(Poster Board)		Writing on the poster has appropriate details, correct grammar and spelling.				
				Sı	Sufficient information on all aspects of the poster is provided.				
			Creativity and		The methodology of the project is original and creative. The exhibitor shows a clear interest in the nature of the project.				
	Cate	ntegory 6 Ingenuity		Th					
					A unique approach to problem solving is shown.				
Significant La bu		Solid Lacks	per range: 4 understanding a few specifics ell developed or lained overall	Mid-range: 3 Limited understanding or scope, Adequate but insufficient understanding or explanation	Lower range: 2 Minimal information Lacks sufficient detail Lacks understanding	Bottom range:1 Component missing, not present or exceedingly inadequate			
EΝ	GINE	ERIN	IG, COMPUTEF	RSCIE	NCE,&MATH		S		
E N		gory 1	Project Design					mance goals.	
EN				Th	ne design brief is	AMATICS PROJECT	d, with measurable perfor	mance goals.	
EN				Th	ne design brief is cope and limitation	AMATICS PROJECT	ed, with measurable perfor ed by the exhibitor.		
EN				Th So Er	ne design brief is cope and limitation	well defined, clearly worde	ed, with measurable perfor ed by the exhibitor. is reproducible and efficie		
EN			Project Design Documentation	Tr So Er Ap	ne design brief is vocope and limitation in gineering design ppropriate use of	well defined, clearly worde ons of project are recognized is presented in detail and	ed, with measurable perfor ed by the exhibitor. is reproducible and efficie displayed.		
EN	Cate		Project Design	The Science of Do	ne design brief is vecope and limitation is ocumentation is ocumentation is o	well defined, clearly worde ons of project are recognized is presented in detail and equipment and material is	ed, with measurable perfor ed by the exhibitor. is reproducible and efficie displayed. ails and diagrams.	nt.	
EN	Cate	gory 1	Project Design Documentation	The Science of Approximately A	ne design brief is cope and limitation is commentation is discussion of cor	well defined, clearly worders on sof project are recognized is presented in detail and equipment and material is clearly presented with details	ed, with measurable perforced by the exhibitor. is reproducible and efficient displayed. ails and diagrams. d end design of the final producible and diagrams.	nt.	
EN	Cate	gory 1	Project Design Documentation	The Science of Approximately A	ne design brief is cope and limitation is cope and limitation is commentation is conflow chart descri	well defined, clearly worders of project are recognized is presented in detail and equipment and material is clearly presented with details insiderations that influence	ed, with measurable perforced by the exhibitor. is reproducible and efficient displayed. ails and diagrams. d end design of the final producible and design is included.	nt.	

	Evaluation and	Flow chart or other evidence demonstrating how device meets the stated design brief.		
	Testing	Evaluation of the extent to which the solution solves the stated design problem and why other alternative designs were not pursued.		
	Background & Topic	Evidence of significant research is provided including a bibliography.		
Category 4	<u>I</u> Information	All terms and concepts relating to the project are defined.		
		Exhibitor is able to discuss topic with ease		
	Presentation of	The poster is neat and visually pleasing.		
Category 5	Project (Poster Board)	Information on the poster is well organized.		
	(i oster board)	Writing on the poster has appropriate details, correct grammar and spelling.		
		Sufficient information on all aspects of the poster is provided.		
	Creativity and	The methodology of the project is original and creative.		
Category 6	Ingenuity	The exhibitor shows a clear interest in the nature of the project.		
		A unique approach to problem solving is shown.		

Appreciation to the Massachusetts Science & Engineering Fair (MSEF) for content contributions.