



2008 ENGINEERING CHALLENGE

SCHOOL:

Project:

Scheduled Start

JUDGE:

Actual Start

PRESENTERS:

Time Finished

Prototype

Category	Exemplary 40-32	Accomplished 31-20	Developing 19-12	Beginning 11-1	Score
Prototype	The prototype is complete, matches the proposed design and needs little improvement, 3D software model created	The prototype is complete and matches the proposed design, 3D software model created	The prototype is incomplete but matches the proposed design, or prototype was completed and not brought.	The prototype is incomplete but resembles the proposed design, improvements are needed	
Materials	The appropriate materials were selected for the application and properly applied or manufactured	The appropriate materials were selected for the application with most properly applied or manufactured	Materials were selected for the application with most properly applied or manufactured	Inappropriate or unsafe materials were selected for the application with most properly applied or manufactured	
Ergonomics	Human/prototype interaction was clearly thought out. Prototype can be implemented without modification.	Human/prototype interaction was clearly thought out. Prototype can be implemented with some modification	Human/prototype interaction has limitations. Prototype can be implemented with some modification	Human/prototype interaction has limitations. Prototype may not be able to be implemented	
Analysis (Cosmos)	A complete finite element analysis (FEA) or simulation was performed and the prototype has minimal failures. Animation and documentation was provided to represent the analysis	A complete finite element analysis (FEA) or simulation was performed and the prototype has some failures. Documentation was provided to represent the analysis	A basic stress test/failure test was completed with data to support the design	A basic stress test/failure test was completed no data was provided to support the design	
Aesthetics	The prototype is aesthetically pleasing, has no visible flaws and logos or colors are appropriate	The prototype is aesthetically pleasing, and has no visible flaws	The prototype has no visible flaws however logos or colors may be inappropriate for the application	The prototype has visible flaws however logos or colors may be inappropriate for the application	
TOTAL OUT OF 200 POSSIBLE					

Presentation

Category	Exemplary 40-32	Accomplished 31-20	Developing 19-12	Beginning 11-1	Score
Presentation	Presents easy-to-follow information that is logical and adequately detailed. All graphics and supplemental information included	Most of the information is included. All graphics and supplemental information is included	Most of the information is included. No graphics or supplemental information included	Most of the information is missing, disordered or is confusing	
Clear Communication	The person(s) presenting conveys a clear and concise message about the process taken to design the prototype, and its features	The person(s) presenting conveys a message about the process taken to design the prototype, and its features	The person(s) presenting conveys an unclear message about the process taken to design the prototype, and its features	The person(s) presenting conveys an unclear message about the prototype	
Calculations	The calculations are complete with detail and relevant formulas and labels	The calculations are complete using relevant formulas and labels	The calculations are complete using relevant formulas	The calculations are incomplete, but use relevant formulas	
CAD Drawings & 3D Models	The drawings are complete with detail and relevant materials and labels & associated back with a 3D model	The drawings are complete using relevant materials and labels & associated back with a 3D model	The drawing includes relevant information but is missing dimensions	The drawings are incomplete, but an attempt was made	
Cost analysis	The cost analysis is complete and formatted with pricing, sources and total costs per item	The cost analysis is complete with pricing, sources and total costs per item used	The cost analysis is complete with pricing and total costs per item used	The cost analysis is incomplete but has some pricing available	
TOTAL OUT OF 200 POSSIBLE					

Storyboard

	Exemplary 50-40	Accomplished 39-28	Developing 27-12	Beginning 11-1	Score
Gantt chart	The timeline is complete with formatting tasks, dates and persons assigned to tasks	The timeline is complete with formatting, tasks, and dates	The timeline is complete with tasks, dates	The timeline is incomplete, but an effort was made	
Physical Storyboard	The storyboard accurately represents how the prototype is used and or developed with complete drawings, pictures and or photos	The storyboard accurately represents how the prototype is used and or developed with complete drawings	The storyboard inaccurately represents how the prototype is used and or developed with complete drawings	The storyboard inaccurately represents the prototype however an attempt was made	
TOTAL OUT OF 100 POSSIBLE					

Q & A

Category	Exemplary 50-40	Accomplished 39-28	Developing 27-12	Beginning 11-1	Score
Prototype/Process	The presentation accurately represented the team prototype and the process that was completed to generate the prototype	The presentation represented the team prototype and the process that was completed to generate the prototype	The presentation accurately represented the team prototype	The presentation inaccurately represented the team prototype, but an effort was made	
Candor/Professionalism	The presentation was frank, open and sincere with no bias and conducted in a professional manner	The presentation was frank, open and sincere with minimal bias and conducted in a professional manner	The presentation had many biases however was conducted in a professional manner	The presentation had many biases and professional conduct during the presentation was limited	
TOTAL OUT OF 100 POSSIBLE					

Business & Industry

Category	Exemplary 50-40	Accomplished 39-28	Developing 27-12	Beginning 11-1	Score
Marketability	The problem to be solved was clearly stated and is communicated effectively	The problem to be solved was stated and is communicated effectively	The problem to be solved was stated and is communicated effectively	The problem to be solved was stated but communication of ideas were unclear	
Business & Industry Involvement	Business and Industry were highly involved and consulted with the development of the prototype	Business and Industry were involved consulted with the development of the prototype	Business and Industry were involved with the development of the prototype	Business and Industry were involved however it was unclear the role they played to assist in the development of the prototype	
Resourcefulness	The team used many sources for supplies and appropriate materials for their application	The team used limited sources for supplies and appropriate materials for their application	The team used appropriate materials for their application	The team completed their prototype materials for their application	
Data and Information	Data and information is accurate, documented properly, supports prototype, and is scholarly	Data and information is accurate, documented properly and supports prototype	Data and information is accurate and documented properly	Data and information is somewhat accurate and has documentation deficiencies, however an effort was made	
TOTAL OUT OF 200 POSSIBLE					

Overall Effect

Category	Exemplary 50-40	Accomplished 39-28	Developing 27-12	Beginning 11-1	Score
Synergy amongst content	The team presented their prototype in a logical ordered sequence, had a smooth transitions between members and teamwork was evident in the overall solution	The team presented their prototype in a logical ordered sequence, had a smooth transitions between members	The team presented their prototype in a logical ordered sequence, transitions between members were awkward	The team presented their prototype in an ordered sequence with questionable logic, transitions between members were awkward	
Accurate and professional	The team tied all elements together thoroughly, speech, language and grammar was clear and accurate, eye contact was sufficient and facts were checked	The team tied all elements together thoroughly, speech, language and grammar was clear and accurate, eye contact was limited and it was not clear if/how facts were checked	The team tied all elements together thoroughly, speech, language and grammar was unclear, eye contact was limited and it was not clear if/how facts were checked	The team presented with minimal attention to tying all elements together thoroughly, speech, language and grammar was unclear, eye contact was limited and it was not clear if/how facts were checked	
TOTAL OUT OF 100 POSSIBLE					

TOTALS		
Category	Possible	Score
Prototype	200	
Presentation	200	
Storyboard	200	
Q & A	100	
Business & Industry	200	
Overall Effect	100	
SUB-TOTAL OUT OF 1000		
PENALTY POINTS-Inappropriate Dress - 20 (ENTER AS NEGATIVE NUMBER)		
PENALTY POINTS-Time -20 points for over 30 minutes and for beginning late (ENTER AS NEGATIVE NUMBER)		
TOTAL POINTS		

Judge's Signature: