

Final Project Judging Rubric

Part I: The Invention

Category	Beginning (1-3 points)	Developing (4-7 points)	Excelling (8-10 points)
Impact of the Invention- To what extent does the invention solve a relevant unsolved problem?	The invention either does not solve a problem or solves a problem that already has a more efficient solution.	The invention solves a relevant, unsolved problem, but does not work consistently or would be too difficult to produce on a large scale.	The invention solves a relevant, unsolved problem and could be reproduced on a large scale.
Addresses Competition Theme- <i>No Unknowns: Highlighting Research in Design</i>	The invention is not related to the competition theme in any way.	The invention has minimal or loose connection to the competition theme.	The invention is clearly related to and embraces the competition theme.
3D Printing Incorporation- To what extent does the prototype incorporate 3D printing skills?	The prototype does not include any 3D printed parts.	The prototype includes very few 3D printed parts and/or 3D printed parts that are included are solely decorative and do not serve a purpose.	The prototype includes many 3D printed parts and/or the 3D printed parts are integral to the functionality of the invention (not just decorative).
Functionality- To what extent does the invention do what it is intended to do?	The invention does not do what it is intended to do.	The invention works sporadically or, in the opinion of the judges, could work with the right materials.	The invention works as planned.
Aesthetics- To what extent did the inventor focus on the details of product appearance?	The product may or may not function, but it is not aesthetically appealing.	The inventor clearly considered the appearance of the invention, but did not pay close attention to detail.	The invention's appearance was clearly kept in mind throughout the design process and no flaws or very minor flaws are present.

Part II: The Presentation

Category	Beginning (1-3 points)	Developing (4-7 points)	Excelling (8-10 points)
Product Knowledge	The inventor does not clearly communicate the purpose of the invention or how it functions.	The inventor communicates the purpose of the invention and/or how it functions, but there are some details that are unclear.	The inventor very clearly communicates the purpose of the invention and how it functions. There are no important details that are unclear.
Explanation of Invention's Design Process	The inventor is unable to present any evidence that multiple iterations were performed and does not clearly explain how the engineering design process was utilized.	The inventor presents evidence that multiple iterations were made, but is not clear about how the engineering design process was utilized.	The inventor presents evidence that multiple iterations were made, and is able to clearly explain how the engineering design process was utilized.
Explanation of 3D Design/Printing Incorporation	The inventor does not explain how 3D design or printing was incorporated into the process of developing their product.	The inventor explains how 3D design or printing was incorporated into the process of developing their product. There is no or little discussion of challenges and solutions or lessons learned	The inventor explains how 3D design or printing was incorporated into the process of developing their product. There is a clear discussion of challenges and solutions as well as lessons learned.
Research on the Theme	The inventor does not highlight any research on the science behind their project or competing products on the market. It is likely that little or no research was done on the theme.	The inventor does not explain either the research on the science behind their project or on the competing products on the market. It is clear that some research was done on the theme.	The inventor is able to clearly highlight their research on the science behind their project AND competing products on the market. It is obvious that a great deal of research was done on the theme, and the design process was influenced by the research.
Video Presentation	The inventor's presentation does not include any multimedia tools.	The inventor creatively incorporates one or more multimedia tools.	The inventor creatively incorporates several multimedia tools.
<p>Point Total</p> <p><i>**Student will receive up to 3 extra points for completing the design challenges throughout the year.</i></p>			<p>_____ /100 Total Points</p>

