INVENTION CONVENTION
U.S. NATIONALS

Rubric

Category	Dimension	Description	Points
Invention Process (45)	Identifying & Understanding	The Identifying stage occurs when inventors seek problems they want to solve. This stage involves how inventors uncover problems and who else might experience the same problem and to what end. Understanding a problem refers to the research inventors have completed to understand what else exists to solve said problem as well as the full impact their problem may have on others.	15
	Ideating	Ideating refers to the brainstorming or imagination stage students go through to generate original ideas and begin to develop their idea/s into specific requirements to determine the likelihood of success.	10
	Designing & Building	Designing an invention or a prototype requires critical-thinking skills; students are expected to articulate how they intend the invention to work and why they chose the materials they did for executing their invention.	10
	Testing & Refining	The key to this step is iterations, improvements and perseverance. The best inventors know the first build is often not the best and seek feedback through testing and refining their design accordingly.	10
Invention Impact (25)	Market Potential	Market potential assesses the scope and likelihood of an invention gaining users. 1. How large and/or viable is the potential market? 2. To what extent was the market appropriately researched and scoped?	5
	Value Proposition	Do inventors clearly summarize why a consumer or user should buy or use their invention? This statement convinces a potential (or future) consumer that one particular product or service will add more value or better solve a problem than other similar offerings.	5

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Invention Impact (25)	Social Value	Some inventions may address pressing social issues. The social impacts may not be easily quantifiable in a traditional economic sense but are nevertheless important to consider in the context of overall invention impact. 1. Do inventors consider and address the potential environmental, societal and other nontraditional impacts of their invention? 2. To what extent does the invention improve environmental/social conditions or have a minimal adverse impact?	5
	Originality	Does the student demonstrate that their invention is unique, novel and creative? Do they show how it is distinguishable from prior inventions and those of peers? Do they share how they did their research?	10
Inventor Communication (30)	Logbook	1. Does the logbook document a journey, not just a report done after the fact? 2. Does the logbook document all aspects of the Invention Process: Problem Identification, Brainstorming (Ideation), Research, Solution, Test and Redesign	10
	Display Board	1. Does the display have strong visual appeal? 2. Is the display eye-catching, with color, pictures, graphs, and variety? 3. Is grammar, spelling, and punctuation correct and if hand-printed, neatly done? 4. Does the display communicate significant aspects of the Invention Process: Problem, Research (why important/ statistics of the problem), Solution, Impact? 5. Are there unique aspects to the display?	5
	Video Presentation	Presentation should be informative and precise. Inventors should be able to communicate the steps they went through during the invention process and the challenges they encountered while completing that process.	10
	Prototype or Model	Does the prototype clearly communicate the key characteristics that make the invention valuable, usable and unique? Note: Outside assistance and collaboration is acceptable as long as the student is driving the process and documents outside help. Students should only do what they can do safely. Credit should be given where assistance was received.	5
		TOTAL	**100**