

## 2021 Maker Expo Virtual Challenge

**Team Name:**
**School:**

**Mechanics:** *Please rate the team on the inclusion of the following elements*

Element - Points	Advanced Proficient- 10 9 8	Proficient- 7 6 5	Developing Proficient- 4 3 2	Novice- 1	Rating
1. Engineering Concept	A well thought out engineering concept is explained. Students demonstrate a clear understanding of the problem and the solution.	N/A	N/A	Engineering concept is lacking in thorough explanation. Students appear to have a lack of full understanding of the problem and the solution	
2. Mission	A well-constructed and targeted mission statement is presented. A clear aim of the team is explained.	N/A	N/A	Mission statement is not communicated effectively or targeted in presentation. The aim of the team is not explained.	
3. Pitch	A slogan that is catchy, creative, and relevant to product is included in the pitch presentation.	A slogan that is relevant to product is included in the pitch presentation.	A slogan is included in the pitch presentation but it not relevant to the product.	No slogan is included in the pitch presentation.	
4. Goals/Objectives	Goals and clear objectives are stated and described in detail with measurable outcomes.	Goals and objectives presented with a limited description and some measurable outcomes.	N/A	Goals and objectives are present with limited explanation lacking measureable outcomes.	

**Content:** *Please rate the team's overall understanding of the Design Process and Entrepreneurship*

Element - Points	Advanced Proficient- 10 9 8	Proficient- 7 6 5	Developing Proficient- 4 3 2	Novice- 1	Rating
1. Problem Identification	Constructs a <b>comprehensive and detailed</b> problem statement that accurately reflects the product operation. <i>(What problem did you choose and why?)</i>	Constructs an <b>adequate</b> problem statement that identifies the chosen theme. <i>(What problem did you choose and why?)</i>	Constructs a <b>limited</b> statement that attempts to communicate the chosen problem but the statement lacks clarity. <i>(What problem did you choose and why?)</i>	Constructs a statement that <b>inaccurately</b> reflects the chosen problem. <i>(What problem did you choose and why?)</i>	
2. 3D Research & Design	Evidence of <b>in-depth</b> research that <b>fully</b> addresses the product and the concept of rapid prototyping a product.	<b>Some</b> evidence of research that <b>adequately</b> addresses the product and the concept of rapid prototyping a product.	<b>Limited</b> evidence of research that addresses the product and the concept of rapid prototyping a product.	<b>No</b> evidence of related research to product and rapid prototyping.	
3. Target Audience	<b>Detailed</b> evidence of students brainstorming possible products and market needs related to product and solution (the "WHO").	<b>Some</b> evidence of students brainstorming possible products and market needs related to product and solution (the "WHO").	<b>Limited</b> evidence of students brainstorming possible products and market needs related to product and solution (the "WHO").	<b>No</b> evidence of students brainstorming possible products and market needs related to product and solution (the "WHO").	
4. Design Process	<b>Thorough</b> explanation of the design loop process utilizing 3D printing technology/technical illustration to solve problems.	<b>Some</b> explanation of the design loop utilizing 3D printing technology/technical illustration to solve problems.	<b>Limited</b> explanation of the connection between the design loop and entrepreneurship process utilizing 3D printing technology to solve problems.	<b>No</b> explanation of the connection between the design loop and entrepreneurship process utilizing 3D printing technology to solve problems.	
5. Marketing	Evidence of students following a <b>detailed</b> and <b>well-researched</b> plan to design, produce and market their product. (logo included)	Evidence of students following a plan to design, produce and market their product. (logo included)	Evidence of students following a plan to design, produce and market their product was <b>below average</b> . (logo included)	<b>No</b> evidence students followed a plan to design, produce and market their product. (No logo)	
6. Product Infographic	A <b>detailed</b> , colorful and well-designed explanation of the connection between the	An <b>average</b> design and explanation of the connection between the design concept and	Info graphic is <b>below average</b> and does not detail connection between the design	<b>No</b> infographic was presented or related to regarding the design concept or 3D printing technology.	

