**Project Objectives and Video Scoring Checklist**

**Objectives**

**DESIGN:** To create a “looks like” or “works like” design that solves a problem presented by scientists, within given parameters

**VIDEO:** To create a 6-minute (+2) video showing the process of your group’s invention development to solve a particular problem, from idea inception to final product creation (Blooper reel no longer than 20 seconds at the end, not included in 6+2 time limit.)

**PAPER:** To collaboratively write a 2-3 (can be longer if needed) page group paper describing the process of each group’s design development to solve a particular problem, from idea inception to final product creation

**Video Scoring Checklist**

**The Set Up (8 points)**

___ Images of UMaine, EPSCoR, and UBMS logos are present

___ Video title and date/year of video creation is present

___ The setting/location is established and described

___ The question/premise/problem/issue you are addressing is clearly stated/shown/demonstrated

___ Characters are introduced: group, group members, group facilitator, and faculty members/graduate students

___ Solutions (stated/written/shown) others developed for this problem are present; if none are available, tell the audience

___ Tone is set

___ Clear captions tell audience what they are seeing in pictures and videos

**Rising Action (9 points)**

___ Unfolding action is shown/described (clips or pictures from faculty presentations, group conversations/agreements or disagreements, model/prototype development)

___ Prompt curiosity – the cause for solving the problem

___ Physical materials used to create prototype are presented

___ Video builds towards the main plot (solution to the problem)

___ “Looks like” or “works like” prototype shown and described

___ Inform audience how your prototype solves the problem/how it works and how it is unique –
What are the effects/impacts of the design?

___ Tell/show the audience issues experienced in the development/creation/design of your prototype

___ Discuss further modifications or testing needed to further develop your prototype

___ Clear captions tell audience what they are seeing in pictures and videos

**The End (3 points)**

___ Wrap up: concluding remarks, pictures, or video clips included (with appropriate captions)

___ Recap – What was the main point of the story? What is the takeaway message you want to leave the audience?

___ Acknowledgements present

**Final Product/Video Analysis (10 points)**

If you were a grantee or potential supporter, does the video give you enough information about the model, and convince you that the model is creative and beneficial enough to inspire funding?

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**Box 7. Group Paper Checklist**

**I. Abstract**

___ Section is present

___ Section has been proofread for grammar and spelling

___ Restates problem and solution

___ Summarizes impact of solution

**II. Introduction**

___ Section is present

___ Section has been proofread for grammar and spelling

___ Problem (and science surrounding problem) clearly stated/depicted

___ STEM-based solution to problem clearly stated/depicted

___ Objectives clearly stated/depicted

___ Importance and uniqueness of solution to problem is presented
III. Materials and Methods
___ Section is present
___ Section has been proofread for grammar and spelling
___ Development of your prototype showed/explained clearly
___ Your “plan, do, study, act” process clearly stated/depicted
___ Purpose of each essential instrument, measurement, part, etc… explained

IV. Results
___ Section is present
___ Section has been proofread grammar and spelling
___ Visual representation of final prototype included
___ Description of prototype included: How does it work? What is the science behind it? Why is it important?

V. Discussion
___ Section is present
___ Section has been proofread for grammar and spelling
___ Discuss/depict usefulness of your prototype, and why your invention matters: (These could include: social, environmental or medical impacts of your design and should include your design’s importance to the scientific community of this field/discipline.)
___ Compare results to previous developments in the field: ‘What was their problem and solution? How did you build on their ideas to create your prototype? Why? How was your project different and why is that difference important?’
___ Discuss/depict any issues or roadblocks in the creation/design of your prototype: ‘Why did your prototype turn out the way it did? What would you do differently next time?’
___ Discuss/depict further experiments needed to test your prototype or future adjustments that might make your product more sensitive, high-functioning, useful, etc…

VI. Conclusion
___ Section is present
___ Section has been proofread for grammar and spelling
___ Why should (or shouldn’t) your prototype be funded?
___ Concluding remarks close paper
VII. References
___ Section is present
___ Section has been proofread for grammar and spelling
___ Complete, correct citation for all sources