

This entry would be likely to receive a **score of 0** based on the EDPPSR. The only content that addresses this element is a cause/effect statement from which a problem statement can be inferred. However, there is no justification of the problem or any entry content from which a justification can be inferred.

Engineering Design Process Portfolio Scoring Rubric
Component and Element Titles

Component I: Presenting and Justifying a Problem and Solution Requirements

- **Element A: Presentation and justification of the problem**
- Element B. Documentation and analysis of prior solution attempts
- Element C. Presentation and justification of solution design requirements

Component II: Generating and Defending an Original Solution

- Element D: Design concept generation, analysis, and selection
- Element E: Application of STEM principles and practices
- Element F: Consideration of design viability

Component III: Constructing and Testing a Prototype

- *Element G: Construction of a testable prototype*
- Element H: Prototype testing and data collection plan
- Element I: Testing, data collection and analysis

Component IV: Evaluation, Reflection, and Recommendations

- Element J: Documentation of external evaluation
- *Element K: Reflection on the design project*
- Element L: Presentation of designer's recommendations

Component V: Documenting and Presenting the Project

- Element M: Presentation of the project portfolio
- Element N: Writing like an Engineer

Please Note: Elements M and N require no submission from the portfolio author(s) and are intended to be scored based on the portfolio work as a whole from what has been submitted from Elements A through L

Element A: Presentation and justification of the problem

5 The problem is clearly and objectively identified and defined with considerable depth, and it is well elaborated with specific detail; the justification of the problem highlights the concerns of many primary stakeholders and is based on comprehensive, timely, and consistently credible sources; it offers consistently objective detail from which multiple measurable design requirements can be determined.

4 The problem is clearly and objectively identified and defined with some depth, and it is generally elaborated with specific detail; the justification of the problem highlights the concerns of some primary stakeholders and is based on various timely and generally credible sources; it offers generally objective detail from which multiple measurable design requirements can be determined.

3 The problem is somewhat clearly and objectively identified and defined with adequate depth, and it is sometimes elaborated with specific detail, although some information intended as elaboration may be imprecise or general; the justification of the problem highlights the concerns of at least a few primary stakeholders and is based on at least a few sources which are timely and credible; although not all information included may be objective, the justification of the problem offers enough objective detail to allow at least a few measurable design requirements to be determined.

2 The problem is identified only somewhat clearly and/or objectively and defined in a manner that is somewhat superficial and/or minimally elaborated with specific detail; the justification of the problem highlights the concerns of only one or two primary stakeholders and/or may be based on insufficient sources or ones that are outdated or of dubious credibility; although little information included is objective, the justification of the problem offers enough objective detail to allow at least a few design requirements to be determined; however, these may not be ones that are measurable.

1 The identification and/or definition of the problem is unclear, is unelaborated, and/or is clearly subjective; any intended justification of the problem does not highlight the concerns of any primary stakeholders and/or is based on sources that are overly general, outdated, and/or of dubious credibility; information included is insufficient to allow for the determination any measurable design requirements.

0 The identification and/or definition of the problem are missing OR cannot be inferred from information included. A justification of the problem is missing, cannot be inferred from information included as evidence, OR is essentially only the opinion of the researcher.

Final Problem Statement

The final problem statement that we are going to solve by the end of this school year is:

Socks are separated from their pairs as well as from other socks and can get tangled in larger fabrics during the laundry process

Other similar areas that we may be able to solve as well are separation from opposite pair, keeping all socks in the laundry together, and creating a sock holder outside the washer/dryer.

