# Engineering Project Rubric

# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Levels/Criteria** | **4 Points**  | **3 Points**  | **2 Points**  | **1 point**  | **Score/Level** |
| --- | --- | --- | --- | --- | --- |
| Layout  | The product (poster or presentation) uses **color** to distinguish sections **and** is **easy to read**. | The product (poster or presentation) includes 1 of the following 2 elements: the product uses color to distinguish sections or is easy to read.  | The product (poster or presentation) includes 0 of the following 2 elements: the product uses color, is easy to read. | There is no product in the form of a poster or presentation. |   |
| Spelling and Grammar | There are **no major errors** in spelling or grammar.  |  |  | There are **major errors** in spelling or grammar. |  |
| Problem Statement: Who is it for, what it will do, why is it needed. | The Problem Statement is present, complete, and uses **color** and **size** to draw attention to it.  | The Problem Statement is present, complete and uses **color** **or** **size** to draw attention to it. | The Problem Statement is present and complete.  | The topic or basic question of the project is not present or incomplete.  |   |
| Design Requirements | There is a list of **all essential design requirements** for the problem. | There is a list of **most essential design requirements** for the problem. | There is a list of **some essential design requirements** for the problem. | There is are **no** essential design requirements listed. |   |
| Design Document: Instructions and diagrams on how to construct or accomplish the project. | A **clearly drawn** and **completely labeled** **design document** is present. | A **clearly drawn** and **incompletely labeled** **design document** is present. | A **poorly drawn** and **incompletely labeled** **design document** is present. | The document and labels are **missing**. |   |
| Materials  | **All** required **materials** and amounts are listed.  | **Most** required **materials** and amounts are listed.  | **Some** required **materials** and amounts are listed.  | **No** required materials are listed.  |   |
| Prototype: The design is used and tested. All observations and data are recorded. | The initial design document has been constructed and its performance analyzed in terms of the design requirements using numerical measurements. | The initial design document has been constructed and its performance analyzed in terms of the design requirements. | The initial design document has been constructed but its performance was not analyzed in terms of the design requirements. | There is no prototype. |   |
| Redesign and Retest: The design has been modified to improve it, and tested, with all observations and data recorded. | The design has been revised and improved based on an analysis of the prototype. The new design has been tested and analyzed in terms of the design requirements. | The design has been revised. The new design has been tested and analyzed in terms of the design requirements. | The design has been revised, but not tested. | There are nor revisions.  |   |
| Data Table(s): All observations are organized and summarized.  | For any data recorded to evaluate the effectiveness of the project design in quantitative terms, there is a data table that organizes and summarizes the data. |  |  | The data table is **absent or incomplete.**  |   |
| Conclusion  | The conclusion includes an evaluation of prototype flaws and successes as supported by data from testing, what changes were made, and how the final design more closely met the design criteria, as supported by the data from testing. | The conclusion includes an evaluation of prototype flaws and successes, what changes were made, and how the final design more closely met the design criteria. In one case, the evaluation include supporting data from the tests. | The conclusion includes how the final design met the design criteria, including supporting data from the tests. | The conclusion includes how the final design met the design criteria. |   |
| Originality  | Demonstrates a novel approach and/or idea. Exhibits a creative approach to design. Shows evidence that other designs were investigated that addressed the same need or real world problem. | Demonstrates a novel approach and/or idea ***or*** exhibits a creative approach to design. Shows evidence that other designs were investigated that addressed the same need or real world problem. | Shows evidence that other designs were investigated that addressed the same need or real world problem. | The project is typical and unoriginal. There is no evidence of investigating other designs. |   |
| Final Score  |  |  |  |  |   /44 |

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