**Engineering Design Process: \_\_\_\_\_\_ / 4**

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| **Grading Criteria** | **Exceeds Standard**  **(4)** | **At Standard**  **(3)** | **Approaching Standard (2)** | **Below Standard**  **(1)** | **No evidence**  **(0)** |
| *Identify the Problem* | Properly identifies problem as conceptual or physical; includes 3-4 testable criteria/constraints. | Only 2-3 criteria/constraints are testable. | Does not properly identify problem. | Has a problem, criteria, and constraints, but very little is accurate or testable. | Incomplete or not included |
| *Gather Information* | Information is well organized, informative, and useful in making a plan related to the problem. Detailed functional diagram is included. | Information is informative, but poorly organized. A basic functional diagram is included. | Information is vague and poorly organized. No functional diagram is included. | Information provided has little to do with the problem or potential solutions. | Incomplete or not included |
| *Develop a Plan* | Detailed final diagram that includes a system analysis, color, and labels. Budget is complete and accurate. | No system analysis is included, but diagram is otherwise highly detailed. | Diagram is a description of the solution or plan with no pictures. | Very little detail is included in the diagram or budget. | Incomplete or not included |
| *Build & Test* | Conceptual - Group presented a well thought out plan for the class to evaluate.  Physical - Multiple trials were conducted for each criteria or constraint and recorded in data tables. | Conceptual - Group presentation seemed unrehearsed, but provided high detail.  Physical - Only 2 criteria or constraints were tested. | Conceptual - Group presentation was unrehearsed and only provided basic details.  Physical - Criteria & constraints were tested, but little information on what was measured is provided. | Conceptual - Little effort went into preparing the information for presentation (slides or poster are poor quality).  Physical - Criteria & constraints were tested, but little information was recorded. | Incomplete or not included |
| *Physical Solution - Redesign* | Completed two modifications to improve the initial design. Thoughtful reasoning was provided for both as well as an adjusted budget. | Completed one modification to improve the initial design. Some reasoning was provided for modification. Budget was revised. | Completed one modification, but did not provide reasoning why modification was needed/included. Budget was revised. | Completed one drawn or described modification. Budget was not revised to reflect modification. | Incomplete or not included |
| *Physical Solution - Build & Test Again* | Rebuilt and tested according to the initial plan with two modifications. | Rebuilt and tested according to initial design with one modification. | Rebuilt and tested, but was unsuccessful in implementing their redesign, or did not include data for the redesigned solution. | Rebuilt, but did not test according to the criteria described. | Incomplete or not included |

**Comments:**