

Rubric for Assessing Engineering Practices.

Criteria <i>Student will be able to:</i>	Needs improvement <i>(0)</i>	Apprentice <i>(1)</i>	Proficient <i>(2)</i>	Mastery <i>(3)</i>
<i>Identify the problem</i>	Student does not identify the problem	Student incorrectly identifies the problem	Student identifies part of the problem	Student identifies the problem completely
<i>Brainstorm a solution (plan)</i>	Student does not brainstorm	Student generates one solution	Student provides 2 solutions	Student provides 3 or more solutions
<i>Develop a solution (plan)</i>	Student does not select or present a solution	Student presents a solution that is incomplete and/or missing details	Student selects a solution but does not consider all constraints	Student selects a solution and considers all constraints
<i>Create a prototype</i>	Student does not directly contribute to the creation of a prototype	Student's prototype does not meet problem requirements and constraints	Student's prototype meets most problem requirements and constraints	Student's prototype meets all problem requirements and constraints
<i>Test a prototype</i>	Student does not contribute to the testing of the prototype	Student conducts tests that are poorly developed	Student conducts tests that are carefully conducted and consider 1 to 2 strengths and weaknesses of prototype	Student conducts tests that are carefully conducted and consider 3 or more strengths and weaknesses of prototype
<i>Communicate results from testing</i>	Student does not communicate results	Student shares random results	Student shares organized results but are incomplete	Student shares detailed, organized results to class
<i>Re-design based on feedback from other teams</i>	Student does not contribute to the re-design	Student does not improve the design or address	Student addresses 1 concern to improve the	Student addresses 2 or more concerns

		concerns	design	to improve the design
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