Design Challenge/Project Rubric (designed with students in class 5-301 10/2016; modified by classes 5-314 & 5-303 10/2017)

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

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| **Category** | **Expert** | **Proficient** | **Apprentice** | **Novice** |
| Teamwork/ Participation | Participates, not afraid to share “wild” ideas. Has an open mind, invites others in. Full contributor. | Participates, Not afraid to share “wild” ideas. Has an open mind. Mostly contributes. | Has an open mind. Contributes little. | Doesn’t participate or contribute ideas.  Off task; not focused. |
| Effort | Shows obvious effort and work. Include a lot of detail and explanation. Put a lot of work into it. Doesn’t rush. Everything is labelled | Shows effort and work. Includes detail and explanation. | Shows a little effort and work. Not a lot of detail. Explanation is not clear. Work seems a little rushed. | Work is rushed. No effort shown. |
| Choice of materials | Materials chosen were best for the task | Materials chosen were mostly appropriate for the task | Materials chose were somewhat appropriate for the task | No appropriate materials were chosen |
| Challenge/ Problem Identified | Reasonable, real life problem; shows effort to solve. Requires “out of the box”thinking. | Has a reasonable, real life problem and effort is needed to complete it. Takes a bit more effort. | Tries to make a real life problem but it is still easy to accomplish/solve. Uses some effort to do it. | The problem is unreasonable and takes no effort to complete. It has not details; problem is vague |
| Prototype effectiveness | It works well and it is clear what the prototype is.  It is an idea that can solve a problem | It works pretty well but may need some tweaking if it is made into a real product | It works somewhat well but it is not clear what it is/what problem it solves | The prototype is incomplete and can’t serve the purpose it is meant to. |
| Design Rationale | Reasoning behind design is complete, clear and readable | Reasoning behind design is complete but maybe not totally clear and readable | Reasoning behind design is almost complete but doesn't make total sense | No Reasoning at all  Off topic |
| Explanation of outcome | Explanation is complete, clear and readable | Explanation is complete but maybe not totally clear and readable | Explanation is almost complete but doesn't make total sense | No explanation at all  Off topic |
| Presentation | Presentation is clear, offers full explanation of problem/solution. All team members contribute during presentation. Feedback is accepted and responded to when necessary. | Presentation is clear, offers explanation of problem/solution. Most team members contribute during presentation. Feedback is accepted and may be responded to. | Presentation offers some explanation of problem/solution. Some team members contribute during presentation. Feedback is accepted. | Presentation offers little to no explanation of problem/solution. Only one team member contributes during presentation. |
| Evidence of design process  (including observations and data) | Design process was used throughout the project.  Observations and data are complete, detailed and clear. | Design process was mostly used during the project. Observations and data are mostly complete, detailed and clear | Design process was hardly used throughout the project.  Observations and data are somewhat complete. | No design process was used.  No observations or data. |