**Final Design Prototype Grading Details**

Your team’s final design prototype will be graded based on rubrics as outlined in this document. Details about the metrics that will be used for ‘Total Points Earned’ and ‘Bonus Points’ can be found below in Table 1-2, respectively.

Table 1. Description of total points earned

|  |  |
| --- | --- |
| **Metric**  | **Points Earned** |
| Ability to solve the proposed design problem  | Maximum of 25 pts |
| Ability to meet project requirements1. Purpose: relate to the “theme”
2. Materials: use required component(s)
3. Size/Budget: fit in locker space, not exceed $150, not exceed $50 out of pocket
 | Maximum of 15 pts |
| Economic Value (based on class/expert evaluations) | $$12×\frac{Your team^{'}s value}{Class Maximum value}$$ |
| Social Value (based on class/expert evaluations) | $$12×\frac{Your team^{'}s value}{Class Maximum value}$$ |
| Creativity / Innovation (based on class/expert evaluations) | $$12×\frac{Your team^{'}s value}{Class Maximum value}$$ |
| Complexity / Sophistication (based on class/expert evaluations) | $$12×\frac{Your team^{'}s value}{Class Maximum value}$$ |
| Craftsmanship / Aesthetics (based on class/expert evaluations) | $$12×\frac{Your team^{'}s value}{Class Maximum value}$$ |
| **Total Possible Points Earned**  | **100** |

Table 2. Description of possible bonus points that can be earned

|  |  |
| --- | --- |
| **Metric**  | **Points Earned** |
| Best Economic Value (as voted on by class/visitors) | 10 |
| Best Social Value (as voted on by class/visitors) | 10 |
| Most Creative/Innovative (as voted on by class/visitors) | 10 |
| Most Complex/Sophisticated (as voted on by class/visitors) | 10 |
| Best Craftsmanship and Aesthetics (as voted by class/visitors) | 10 |
| Grand Champion (highest votes out of all categories combined) | 10 |
| Extra effort (at instructor’s discretion) | 20 (max) |
| **Total Possible Bonus Points**  | **80** |

**NOTE: Final design prototype grades may be further adjusted based on the actual outcomes of the final demonstration at the instructor’s discretion.**

During the demonstration, all the designs will be voted by the whole class in different categories. Each student will complete an internet survey similar to what is shown in Table 3. The “class maximum value” in each category in Table 1 will be determined by the class votes, as well as the winner of each category.

In terms of extra credit, your team will earn extra credit if your design is voted the winner of any category in Table 2. There will be total six awards as shown in the table. In addition, your team can earn extra credit for extra effort put in the project at instructor’s discretion.

**Final Design Prototype Qualitative Assessment Sheet**

Please rate each team’s design with respect to each of the criteria *on a scale from 1 (very poor) to 5 (excellent)*.

Table 3. Final Design Prototype Qualitative Assessment Sheet

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Criteria** | **Team 1** | **Team 2** | **Team 3** | **Team 4** | **Team 5** | **Team 6** | **Team 7** | **Team 8** | **Team 9** | **Team 10** |
| Economic Value |  |  |  |  |  |  |  |  |  |  |
| Social Value |  |  |  |  |  |  |  |  |  |  |
| Creativity / Innovation |  |  |  |  |  |  |  |  |  |  |
| Complexity / Sophistication |  |  |  |  |  |  |  |  |  |  |
| Craftsmanship / Aesthetics |  |  |  |  |  |  |  |  |  |  |