

TIDEE

Transferable Integrated Design Engineering Education



UNIT 4: Multi-week Engineering Design Project

Session 8: Conduct Race and Finalize Presentation

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Announcements and Objectives for the Day (10 minutes)

- a. Teams compete and have fun.
- b. Oral presentation is finalized and responsibilities are assigned to finish preparing for the presentation.

The Race (75 minutes)

Finalize Content of Presentation (12 minutes)

If there is time at the end or during the race teams engage in this activity. If not, gather your team together as soon as possible and use this activity as a guide to help prepare for the final presentation.

Reflectors Report

Session Overview

Race Day

The race is on. Time to have fun! This is where the rubber, or in the case of this project, the paper “hits the road.” Design performance will be evaluated upon a variety of criteria. The weeks of teamwork, planning, and piecing your prototype together come to a climax as we see each team’s design in action.

Each rider will navigate the vehicle safely. Bicycle helmets must be worn for head protection. Students may bring their own helmets from home or the school may provide them. The course may be shortened (according to the instructor’s digression) to allow the race to be run within a confined space, with room for spectators to view the race.

When the race is completed, team members will have time to finalize their presentation for the next class period.

Activity: Finalize Content of Presentation

Objective: Teams critique their project and finalize the content of their presentation

Tasks

1. Review the criteria in the handout Criteria for Final Oral Presentation
2. Review the previous list of topics that should be addressed during the oral presentation.
3. Discuss the strengths of your design and team process.
4. Decide what improvements should be made to improve your design to make it more competitive and what your team might have done to improve the design process.
5. Finalize what aspects of your design should be included in your presentation.
6. Finalize which media you are going to use for your presentation.
7. Generate ideas on how you could most effectively present your team's design, engagement in the design process, communication and teamwork.
8. Create a schedule and assign tasks so that each team member accepts their responsibility to produce a quality team presentation.
9. Help the reflector prepare a reflector's report.

Deliverables

Reflector briefly prepared to answer the following:

- The team's effectiveness during construction of the structure.
- How the time management plans contributed to the success of the project.

Criteria for Success

- Teams have fun competing and support each all members within the class.
- Team effectively analyzes their project to develop an improved project.
- Team creativity is high and thinks of creative ways to present their project.
- Team members help reflector to produce an improved reflector's report.

Resources

- Teams human powered paper vehicles.
- Handout: Criteria for Final Oral Presentation.
- Time left after construction of project has been completed.

Criteria for Final Oral Presentation

The final oral presentation should address:

1. The design process your team used.
2. The performance of the final product.
3. Teamwork and team communication.

Each of the items should discuss the lessons learned that includes the strengths, areas for improvement and any insights gained.

You are encouraged to use a PowerPoint presentation, but you may choose other media such as posters, overheads, videos, models and/or other visual aids.

The maximum time limit for the presentation is fifteen minutes. If needed, a warning will be given at the twelve-minute and fourteen-minute mark.

The grading criteria are:

1. The content for each of the three items listed above. (20 points for each)
2. Oral presentation. (20 points)
 - a. Clarity
 - b. Rapport with or connection to audience
 - c. Contribution from all team members
 - d. Flow of information
3. Quality of visual aids (20 points)
 - a. Creative
 - b. Legible
 - c. Understandable
 - d. Well organized