

Competition Project

Major Deliverables

- Project Proposal
- PDR: Written & Presentation
- Detailed Test Plan
- Bear Day Competition
 - Friday, 8 April, 9 -11 a.m.
 - Direct competition between vehicles
- CDR: Written & Presentation

Design Project Proposal

- Design Description and Specification
- Preliminary Feasibility Criteria
- Preliminary Merit Criteria, Merit Weights, and Merit Curves
- Preliminary Design Concepts (drawings with explanations)

Written PDR

- An extension of the proposal
- Design Alternatives
- Feasibility and Merit Analysis
 - Feasibility and Merit Criteria
 - Merit Curves
- Design Recommendation
 - Justification of selection and construction drawing
- Testing Plan – outline test to be done, no details
 - A test must be done to verify each of your assumptions and calculations

Testing Plan

- Detailed explanation of each test to be performed
 - Acceleration, max velocity, max force, momentum, etc.
 - Note: the above tests are all performance tests but should be explained individually
- Test should verify project specification
 - Feasibility criteria, merit criteria, and any engineering calculations and analysis
- Review Test Plan Document on the class web-site
 - Table format for detailing test

Bear Day – Friday, April 8

- Direct competition between vehicles
 - Double elimination format
 - 6 to 7 teams per project
- Document vehicle performance and lessons learned in the CDR

Written CDR

- Do not rehash all of the PDR
 - Not an extension of the PDR
- Review project description, design recommendation, and rationale
- Test Plan
- Construction Details
 - Document modification

Written CDR, cont'd

- Testing results
 - Document modifications
 - Include a discussion of how results correlate with project specifications, feasibility criteria, merit criteria, and engineering calculations and analysis
- Assembly Drawings and Instructions
- Financial Analysis
 - Manufacturing cost – details to be provided
- Conclusions and Recommendation
 - What would you do differently next time

Competition Project CDR Presentation

- No Final Exam
- Final Exam Period may be used for presentations

You and Your Client

- Be professional (including attire)
- Let them know who you are and who your lab instructor is
- Be prepared to ask questions
 - Have questions prepared
- Value their time
- Make (and keep) appointments
- Be organized
- Email is a good method to follow up communication