

ME 72b 2010-2011

Final Design Report

The *Final Design Report* should contain:

1. A *Cover page* containing:

- Name of competition
- Team name
- Names of team members
- Course name
- Instructor
- Term
- Date of submission

2. A *Project description* that includes:

- Introduction/Background
- Motivation
- Objective
- The Design Process
 - Preliminary design
 - Idea generation (summary of team generated ideas; include rough sketches and/or engineering drawings created during this phase)
 - Analysis – include any engineering analysis conducted during this phase
 - Final Design
 - Final design – justify this selection and provide final engineering drawings
 - Functional description of the mechanism/robot
 - Clear statement of the novel features of the mechanism/robot
- Prototype construction
 - Materials used,
 - Construction methodology
- Testing
 - Testing procedures
 - Evaluation of performance in milestone events leading up to final competition
 - How did your robot do in the milestone events?
 - What was successful and what was not?
 - What did you change and in response to what?
- Final Performance
 - How did your robot do in the final competition?
 - Did the changes you made during the testing/milestone events help?
 - What would you change knowing how you did in the final competition?
- Timeline: Include your projected timeline, as well as the actual timeline your team followed.
- Budget: Updated budget should be included in the report. The budget should include a description of the items bought, the cost, and vendor details (name, location, etc).

Note: Include all appropriate figures, tables, photographs, etc. Provide figure captions (bottom of figure), table captions (top of table). Make sure to refer to the appropriate figures and tables in your description. Format to maximize the readability (e.g., subheadings in bold, use paragraphs, eliminate spelling and grammatical errors, etc). You can borrow heavily from the preliminary design report that you submitted during the CDR. Reports should be in the 7 - 10 page range.

Deadline: Friday, March 18 at 5 pm at the latest(no extensions). Leave hard copy (stapled) in the box outside TOM 320. One report per team; however, individuals can choose to submit their own reports.