Guidelines for Critical Design Review

Purpose:

The CDR is a detailed technical review presented to the class to ensure that the system under review can proceed into system fabrication, demonstration, and test; and can meet the stated performance requirements The CDR presentations must accomplish the following:

- Provide a brief restatement of the problem to orient the audience

- Provide a description of work to date.

- Provide detail design, along with analysis and explanation.

- Explicitly state – in detail – two milestones that will demonstrate progress.

Requirements

- Presentations are to be given using the Millennium Engineering PowerPoint template provided on the class web site.

- Prior to class, each team should email me a copy of their PowerPoint slides so I can load them on the computer for presentation.

- Bring two hard copies of the presentation to the review. One copy for me and one for Matt. The hard copies should have one slide per page. Color slides are not necessary.

- All members of the team are expected to take an active role in the presentation.

- The presentation, including questions, should not take more than 25 minutes. Therefore your actual presentation to the class should be targeted at 20 minutes. It should be professionally presented and well rehearsed.

- The CDR will be peer reviewed.

CDR Presentation Guidelines

1. Brief review of project objectives and purpose

2. Outline of the approach:

    o Provide a system block diagram with a functional description of parts and interfaces

    o Discuss key technologies that will be required to implement blocks.

3. Implementation of the System

    o Provide specifications and detailed design of each subassembly, including circuit and logic diagrams

    o Description of software processes with their inputs and outputs

    o Describe any test results or simulations of the completed parts of the system

4. Schedule:

    o Updated detailed schedule with planned deliverables for Milestone 1, Milestone 2, and the final demonstration. Be specific on what you will demonstrate for these milestones.

5. Describe or list the current status of items/subsystems

    o Which items have been completed?

6. Significant challenges of this project

    o Identify issues found to be particularly challenging. Describe your solution to these issues.

CDR Documentation Guidelines

- An updated documentation package is required prior to your CDR presentation
- All designs should be finalized
- All open questions should be resolved
- Schedules should be updated with status of tasks noted (e.g., not yet begun, in progress, complete)
- All required parts identified (and vendors identified with available inventory)
- The test plan should be complete (as much as possible)