

D009 – 7

To: Senior Management
From: Senior Design Class
Date: February 10, 2008
Subject: Weekly Status Letter

This past week,

The main task for the entire team was to come up with the documentation for the CDR. The CDR report includes:

- An updated system design, comprising the final, detailed, and complete subsystem breakdown, subsystem test plans, interface control specifications captured in an interface control document (ICD), and final subsystem specifications.
- “Build to Print” fabrication specifications for all subsystems.
- Test procedures and test-benches for all subsystems.
- A requirements analysis (traceability matrix) showing that the detailed design and testing meets all requirements and constraints
- A revised risk assessment identifying critical areas of risk and strategies for managing or ameliorating potential adverse consequences of that risk.
- A revised cost analysis and detailed program budget that documents costs to date and demonstrates compliance with financial constraints.
- A revised program schedule that documents progress to date and identifies system and software critical path drivers to meet schedule constraints.
- A draft system level Acceptance Test Plan
- A draft Users

We managed to complete the tasks involved with preparing the CDR report. The low-level group finalized their design of the switching circuit replacing the original p-channel FET with an n-channel FET and connecting the common ground to high in order to simplify the design. Current estimates that were needed for the CDR were also completed. The UI/PC group continued work on coding the API. The design of the underlying control block and the graphical user interface using XML has been completed. The test benches for the control block have also been tested. The network group tested the PWM signal with the H-bridge. Testing the sensor input and outputs has been carried out on the breadboards. Further tests will be carried out on the actual train hardware set-up.

A new updated schedule that more closely matches the tasks that are worked on was completed. Also a management team was formed to work on the weekly status letters, updating of schedules and general management items. The integration work between the network group and the low-level group has mainly been done in design. Testing of the

actual hardware has been delayed by lack of the required components which will be ordered soon. The simulation of the remaining 3 out of 5 circuits was completed.

For this coming week,

The parts that have been designed will be ordered for testing. The API will work on implementing the main class and the builder decoder. The test benches will be ran. Also they will test the builder decoder with an oscilloscope. Implementation of the GUI and control logic will be worked on. Method call backs will be implemented. Integration of subsystems is a crucial phase that will be looked at.

The low-level group will continue testing its circuits as the design phase is already completed. PCB design should be completed this week while fabrication of the board will be done once complete breadboard testing of all components integrated with one another is complete. The networking group is waiting for the Octopus to arrive so that hardware testing could be carried out. Integration of the network with the low-level parts is a priority for this week.

Please see attached for the Labor Hour Report spreadsheet and the meeting minutes from this past week.