

EE247 Project #4 Proposals

Project #4 is to be a project that the student defines. The level of complexity and sophistication should be about at the same level as Project #3, possibly a bit more. Topics that have been done in the past include games and more sophisticated motor control. Displaying messages or graphs using separate LCD displays, or interfacing to keyboards to make a simple stand-alone calculator are also possibilities. This document described what is expected as a project proposal. The project proposals must be submitted and approved before starting the project. At the end of the semester projects will be demonstrated to the class, and a report made.

Proposal Contents:

Abstract

Overview / Description of what the project product is to do: What task will it perform, and how will it interact with a user (if any)?

Example of Execution: This would be in the form of a script which would show how the project product will interact with the user. For example, this would be what the transcript of a Hyperterminal session would look like with various commands and their responses for a text based interaction. It could be example "screens" and the corresponding "button pushes" for a Hyperterminal text based game. It could be a listing of actions taken y the user and expected responses of the system for mechanical control projects. The point is to give the reviewer example specifics of how you will expect the system to behave.

Organization: Identify the major components of the system. For example, for Project 2 those components would include a main program (with the main loop), the terminal, the serial port utilities, and the commands (and their supporting called functions and data structures) used to control the motor and respond to LED, button, and information (pot, photo) commands. Also, identify facilities to be used, such as interface modules of the microcontroller (such as the SCI, ADC, TMP, RTC etc.) and external resources (such as Hyperterminal on a PC, an external keyboard, an LED or LCD display, or other things).

Estimate of Size: Estimate the number of "lines of code" (including comments) that will be needed to do the project. Identify those that can be used pretty much as-is (for example, the terminal program), those that exist but will need significant modification (perhaps the serial port), and those that will need to be written from scratch, with number of lines of code for each.