

EECE 690/890
Homework #1
Due Tuesday 9/1/98

Resume:

To help guarantee success in the course project, and to minimize the work load of each student, it is important that the companies “hire” the right persons for the right tasks. This “hiring” (assignment of individual students to particular companies/teams) will be done by the company CEOs (your instructors) based on information you provide in this assignment.

Please type up a brief (one to two page) resume, providing information you feel will be helpful in making these decisions. As a minimum, you should include the following information:

- Your class (junior, senior, grad, etc.)
- Your major (electrical or computer engineering)
- A list of all courses you have taken that you feel may be helpful in the project, and a notation of whether you feel you know/remember the material from that course well, OK, or not-so-well.
- Your preferred assignment (please see the reverse side of this page for a list of teams and example assignments).
- Any work experience you have had outside of school (technical or otherwise).

Your grade on this assignment will be based on the completeness and presentation quality of your resume - not on whether or not you have “better experience” than other students.

* Please do not tailor your resume to attempt to get a certain task assignment, unless you are certain that that assignment is one you have a good background for. Signing up for something you do not have a good background in may hurt the overall team effort as well as yourself, since you probably do not have the time to learn everything needed to complete the work by the necessary deadlines. You can be assured that you will still learn about the other areas, even if you are not working on those tasks directly.

Project Teams and Assignments (*Preliminary draft - for reference only*)

Team 1: RF Designers

Transceiver	Synthesizer
Read data sheets, draw draft schematic	Read data sheets, draw draft schematic
Select filters, crystals, frequencies	Determine divisors and synth part number
Revise schematic, check signal interfaces	Design loop filter VCOs, revise schem
Prototype circuits	Prototype circuits
Do preliminary layout	Do preliminary layout
Check layout, add testpoints	Check layout, add testpoints

Team 2: Digital circuit / ASIC designers

PLD	Micro-controller, ADPCM, LCD
Study Altera and do design exercise	Read data sheets, draw prelim schematic
Implement Bit sync	Build test board for bit sync
Implement Buffer registers	Revise schematic, add test points
Implement ADPCM, uC interfaces	Build test board for ADPCM
Implement uC interfaces	Test ADPCM
Test/debug	Do preliminary layout

Team 3: Microcontroller software engineers

Software	Software/hardware interfacing
Read PIC data sheet and do prog exercise	Read PIC data sheet and do prog exercise
Do port assignments	Build test board
Study system and design top-level executive	Write routines for LCD and Synth control
Write top-level executive routines	Test LCD, synth
Write top-level routines / add debug displays	Build test hardware
Test/debug	Test/debug

Team 4: Electronic Design Automation and Human Interface Designer

Do familiarization exercise on HP EEsof tools

Read layout book and do simple test design, possibly working with another team in prototyping
Design human interface circuits (audio circuits, switches and displays, etc.)

Do layout planning and mechanical design

Collect and enter layouts

Check against final schematics