



ECE 477 Digital Systems

Senior Design Project

Guideposts
Week 3

Last Week (Week 2)

- Homework 2: Functional Specification
 - Defined usage case, end user
 - Determined project requirements
- Mandatory lab session 2
 - Student website audits
 - PSSC feedback

This Week (Week 3)

- Homework 3: Electrical Overview
 - Due Friday at 11:59pm (midnight).
 - Completed individually (by person in Final Project Proposal)
 - Discuss voltages, interfaces, power budget
 - Electrical system block diagram (precursor to schematic)
 - Begin thinking about what parts your project will need and how you will prototype functionality

This Week (Week 3)

- Homework 4: Software Overview
 - Due Friday at 11:59pm (midnight).
 - Completed individually (by person in Final Project Proposal)
 - Discuss algorithms, data structures, high-level overview of code
 - Program flow chart and state machine diagram (precursors to source code)
 - Begin thinking about what parts your project will need to run your code and how you will prototype functionality

This Week (Week 3)

- Mandatory Lab Session 3:
 - Wednesday at assigned TCSP session time in EE061/EE063 (10am and 12pm)
 - Progress briefings, functional specification feedback, hardware/software overview status and coaching
 - Attendance will be taken (so be there on time)
- Weekly Progress Reports
 - Starting this week; completed individually
 - Write at least half a page describing technical contributions to the project over the past week
 - Details on what you should be writing about in the Progress Report Policy on course website

Next Week (Week 4)

- Homework 5: Component Analysis
 - Identify 3-5 relevant and important components for your designs
 - For each component, evaluate 2 or more candidate parts, weigh pros and cons, and determine choices
- Homework 6: Bill of Materials
 - Comprehensive breakdown of all ELECTRICAL components to be utilized in your design
 - Used for parts ordering as well as design and construction of printed circuit board (PCB)

Next Week (Week 4)

- Evaluate components and begin determining what parts will be used in your design
- Begin acquiring prototyping tools, parts, and hardware and testing features of design
 - Learn how to program in microcontroller family IDE
 - Begin developing software and tests for features of design that you are unfamiliar with

Questions?