

Stuff We Need for Senior Project (ECE 481) Proposals

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1. Introduction
 - What is the project?
 - Who is the sponsor?
 - Level of completion (proof of concept, prototype, working product)
2. Needs Analysis
 - What is the need you are trying to fill?
 - What exists now?
 - How will this project fill the need?
3. Project Feasibility
 - Show sufficient existing technological base
 - Show approximate costs
 - Show existing intellectual resources (students, faculty, engineering consultant)
 - Show parts funding for device
 - Show equipment needs and availability/funding for support
4. User View of Completed Project
 - Deliverables (box, instruction manual, training)
 - Enclosure
 - Input/output mechanisms
 - Fabrication (solderless circuit boards, PCB boards?)
 - Testing and verification
5. Design Alternatives
 - Breakdown of necessary components; block diagram
 - Define name for each alternative
 - Parts, tasks and cost associated with each alternative
 - Block diagram for each alternative
 - Selection rationale for preferred solution
6. Preliminary Design of Preferred Alternative
 - Top level user's view of project result
 - Section for each component
 - functional requirements
 - block diagram
 - circuit/logic diagram
 - interface between components
7. Project Management
 - Project leader
 - Team responsibilities
 - Role of faculty and engineering consultants
 - PERT analysis
 - Schedule
8. Cost and Budget
9. Summary
 - What is the Project?
 - User's view of product
 - Preferred alternative
 - testing and verification
 - deliverables
 - project due date