

Preliminary Project Design Proposal

Must Contain Three Elements:

- **Some kind of “Problem Definition or Statement”:**
 - Specifically, what is the problem?
 - What are the goals and objectives of the project?
 - What’s out there now? [”current state of affairs”, Dieter]
 - Where are you planning to go?
 - Solution constraints - what will you not do?
 - Technical term definition [if applicable at this point]
- **Identification of Customer Requirements/Needs:**
 - What the product/device is supposed to do, “musts” and “wants”
 - Performance constraints - “must nots” and “should nots”
 - Internal/External Survey of potential customers
 - Benchmarking
- **Engineering Characteristics [Metrics]**
 - Product/component specifications that allow you to determine whether needs have been satisfied
 - Not specific values, but measurable characteristics
 - QFD [HOQ] useful for organizing but not essential for success

Note that there should be no attempt to provide solutions as to “How” these needs are to be satisfied. Conceptualization of your plan comes next.....