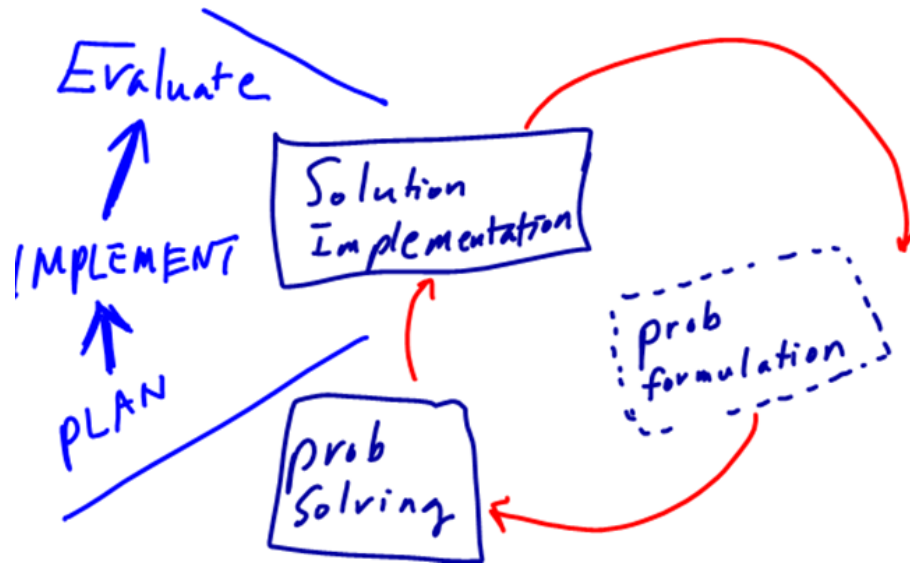


Implementation, Verification, and Final Presentation



Paper Design into Reality

Implementation

- Conversion of Paper Design into Reality
- Make sure the implemented design meets the design requirements (“Quality”)
- Efficient Process to do the work (“Delivery”)
 - Manage the key resources: Time & Personnel
- Risk Management
 - Risk identification
 - Risk Monitoring and Control

Test Plan for Evaluation

- Procedures to evaluate a design against all of the design requirements
- Test
 - What experimentations are need to prove req A, req B, etc.
 - (Ex) 5 gpd water purification
 - (Ex) max 5 ms time delay from command to action
 - (Ex) RFID pick-up up to 1 meter
 - Experiment Plan (>>> Demonstration)
 - Must be possible to hand the plan to someone not involved in the design project and have them successfully conduct the evaluation procedures.
 - What other set-ups are needed for experimentations
 - (Ex) Volunteers
 - (Ex) A tape measure
 - (Ex) Energy-Power-meter
 - (Ex) A gallon jug
 - (Ex) a Flash light
- Lesson learned
 - Why the performance does not meet the design requirements?
 - Design flaw? Implementation Error? Coding Error?
 - Ethical review of the results

Toward Project Completion

- Progress Presentation + Demonstration
- New (Final) Presentation Format from March 27
- Team Presentation from March 27
- March 27
 - Progress Presentation + Demo
- April 3
 - (Dress) rehearsal for final presentation + Demo
 - Poster
- April 10
 - Final class presentation + Demo (with Poster)
- April 18
 - ECE Day

ECE Day Presentation

- **Part A: Presentation**
 - Formal presentation in the auditorium
 - Presentation only, therefore, presentation needs some visual display of the final product with video clips for example
- **Part B: Poster Board + Demonstration**
 - A table is set up for each team
 - A poster board is set against the wall
 - Demo system in front of the poster board



Final Presentation Format

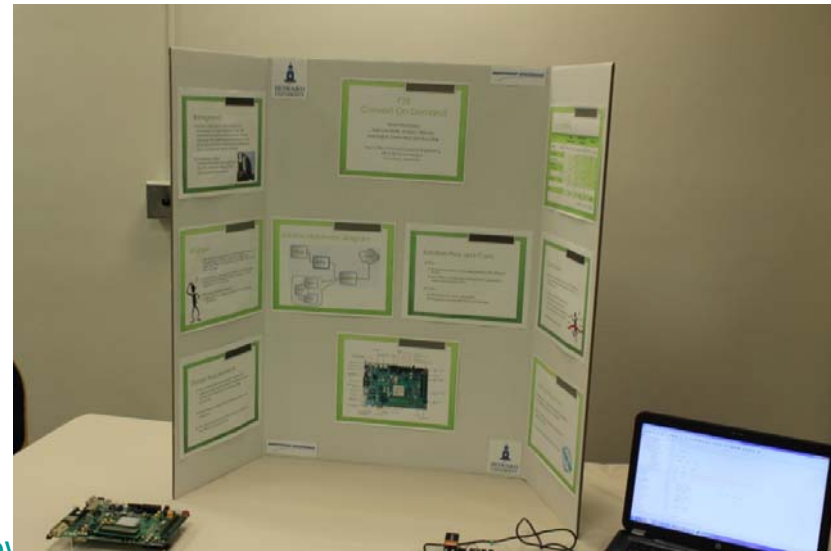
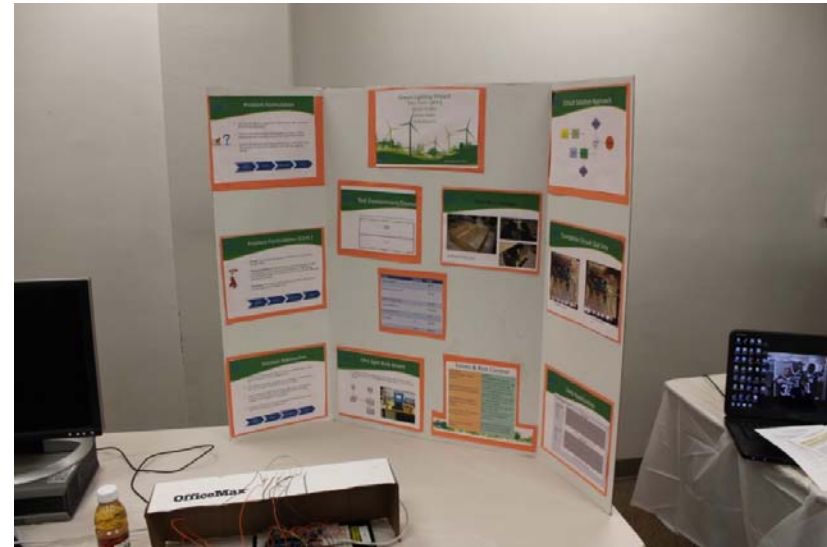
- **Cover (1 slide)**
 - Title and Members
- **Background (1 - 2 slides)**
 - Background of the project (industry, technology, customer, etc)
 - Needs and demands in customer's point of view
- **Problem Definition and Design Requirements (2 slides)**
 - Refined Problem Definition in Engineering point of view (1 slide)
 - Design Requirements (1 slide): emphasis on constraints and rules and regulations
- **Current Status of Art (1 - 2 Slides)**
 - Prior art and available technology, weakness, etc
- **Solution Approach (2 slides)**
 - Explanation of the solution with schematics and diagrams
- **Implementation (2 slides)**
 - Assigned tasks for solution implementation
 - Photos, screen shots, circuit diagrams, etc, etc.
 - Testing of the integrated system
- **Testing and Evaluation (3 slide)**
 - Performance of the system against design requirements
 - Discussion on the performance.
- **Costs and Resources (1 slide)**
 - Bill of parts
 - Resources used and provided
- **Conclusion (1 slide)**
 - Crisp and clear summary of the project

Poster Preparation

- Poster should quickly orient the audience to the subject and purpose.
- Specific sections such as the results should be easy to locate on the poster
- Design the individual sections of a poster so that they can be quickly read.
- Sample Posters are available in the class note webpage



Posters



Charles Kim – Howard University

Team Presentation

- **Format**

- Equally divided presentation times
 - First, tell the audience who is going to talk on what
 - Take turns
 - Then, the first person concludes
- Dialogue Style presentation
- Tag team presentation
 - Anchormen and remote correspondents

- **Tips**

- Plan ahead and do practice, a lot.
- Everyone should share the presentation
- Smooth Transition from a presenter to another
 - A presenter should wrap up own segment,
 - then build a bridge that links what they said to the ne
- Decide Position and Roles in advance
 - how you will position yourselves
 - who will be where and
 - what they will do while another member is speaking?
- Take pains to make sure that
 - Everyone in the group is doing their share
 - Everyone performs well on your presentation

Effective Technical Communication

- Precise and Complete
- Grab and hold audience interest
- Present materials understandable by audience
- Preserve simplicity
- Eye Contact
- Check Audience
- Be Prepared
- Practice and take pains
- Roles and Smooth Transitions



Team Presentation Schedule

- March 27
 - Progress Presentation + Demo
- April 3
 - Presentation
 - Demo (with Poster Board)
- April 10
 - Final class presentation (Dress Rehearsal)
 - Demo (with Poster Board)
- April 18
 - ECE Day
 - Join the “Jump”



Charles