The EID SuperProject

Project 4, 5, and 6 make up the Semester SuperProject for EID.

- Project 4 is a design exercise for the SuperProject (100 points) (due 11/6)
- Project 5 is an interim report on the SuperProject construction (50 points) (due 11/20)
- Project 6 is the final SuperProject delivery (100 points plus bonus for project quality) (due 12/11)

Project 5 and 6 deliverables will be detailed later, the following outlines the deliverables for Project 4

Project 4 – SuperProject Design

Deliverables

UML Use Cases – Your use case diagrams should show how you expect users to interact with your system, what specific tasks will they perform to succeed at using the system. Remember to apply the WAVE rule to these diagrams. They should cover the entire process of users using your system, including any optional or follow-on required interactions.

UML Sequence Diagram – Create a sequence diagram for a primary set of transactions in the elements of your SuperProject – what key modules or elements talk to others, what data is transferred, what conditional decisions are made. This may model the entire "happy" path through the system or it may model the details of a key interaction or set of interactions. An accompanying description should define the scope of the diagram.

UI Wireframes – create medium fidelity wireframes of your systems user interfaces. The interface wireframe should present labeled functional areas, buttons, or other controls, but should not include content, fonts, or colors. Balsamiq is an excellent online tool for this, there are others.

Architecture Diagram – A boxes/arrows (non-UML) system diagram showing the major components of the overall system, including UIs and physical components (Pi's, sensors, cloud services, etc.). Examples of typical architecture diagrams here: https://www.edrawsoft.com/architecture-diagram.php

Work Breakdown Structure – Create a WBS that outlines the work you expect to do during the project based on what you know today. Start with three phases (Project 4, 5, 6) and include under Project 4 all the deliverables above. Project 5 and 6 deliverables should include the development and test you expect to do during those phases.

Paper Prototype/Wizard of Oz Test for a selected UI – Pick a user interface that you have a paper prototype or wireframe for that is a part of your design. Define three primary tasks you will want users to perform with the designed interface. Use a minimum of three "users" for testing (ideal for these not to be fellow CS/EE students). Write a brief script for how you will run the test. Have each user try to do the three tasks with your paper prototype, encouraging them to think out loud about what they're trying to do. Your test team at a minimum should include a facilitator and a computer/notetaker. The facilitator will run through the three tasks with each user, you must encourage the users to talk about their choices, but not lead them or direct them. The computer/notetaker will speak to what the paper prototype would do based on what the user tries, they will also take notes about any issues uncovered. The deliverables for this element include the prototype/wireframe used for the test (could be from the UI Wireframes deliverable above), the tasks/test scripts, and the notes from the three tests.

Grading

Elements

- UML Use Cases – 10 points
- UML Sequence Diagram – 10 points
- Architecture Diagram – 10 points
- UI Wireframes – 20 points
- Work Breakdown Structure – 20 points
- Paper Prototype/Wizard of Oz Test – 30 points

The deliverables should be yours and your team's work:

- Cite any sources for any elements you used from the Web or other sources; should include the URL of the resource you took it from
- You may not directly use elements from other teams, although they may give you advice or suggestions
- If someone (students or class staff) helps you on part of your submission, please give credit in comments or title page

Submit all elements in a single PDF with a title page indicating the project name and the team members.