

We anticipate that this hardware will include a gyroscope, accelerometer, ambient light sensor, GPS navigation, touch screen, and a battery based power supply. The goal for battery endurance is 3 hours, while GPS accuracy will be targeted at within 5 meters.

Housing: To hold all of these pieces together our group will have to construct a housing unit that provides sufficient mobility for the tablet to be used in a demonstration capacity. It must be able to hold all system components, not interfere with the usability of the screen, and provide a minimal level of protect for the hardware from the elements. Targeted final weight of the tablet is not to exceed 4 pounds.

Software: The operating system used for this tablet will be the Android 4.1 OS. We will use the Android SDK to develop applications that implement the features for this tablet. The first will be a digital map of the UCF campus that will use augmented reality features to aid in user navigation. This application will be able to determine the user's current location, calculate the shortest path to desired destination, and illustrate the path virtually to the user on the screen. Virtual overlays onto the users screen will match the 5 meter or less accuracy of the GPS.

The second software feature will be a landmark identification feature that will highlight and provide details of selected landmarks by the user. This will require constructing a data base of significant landmarks, and integrating their locations into the digital map. These landmarks will be highlighted for the user on their screen as they navigate the campus. Our goal is to highlight the major buildings and landmarks on campus, and provide a means for the user to add new landmarks onto the digital map.

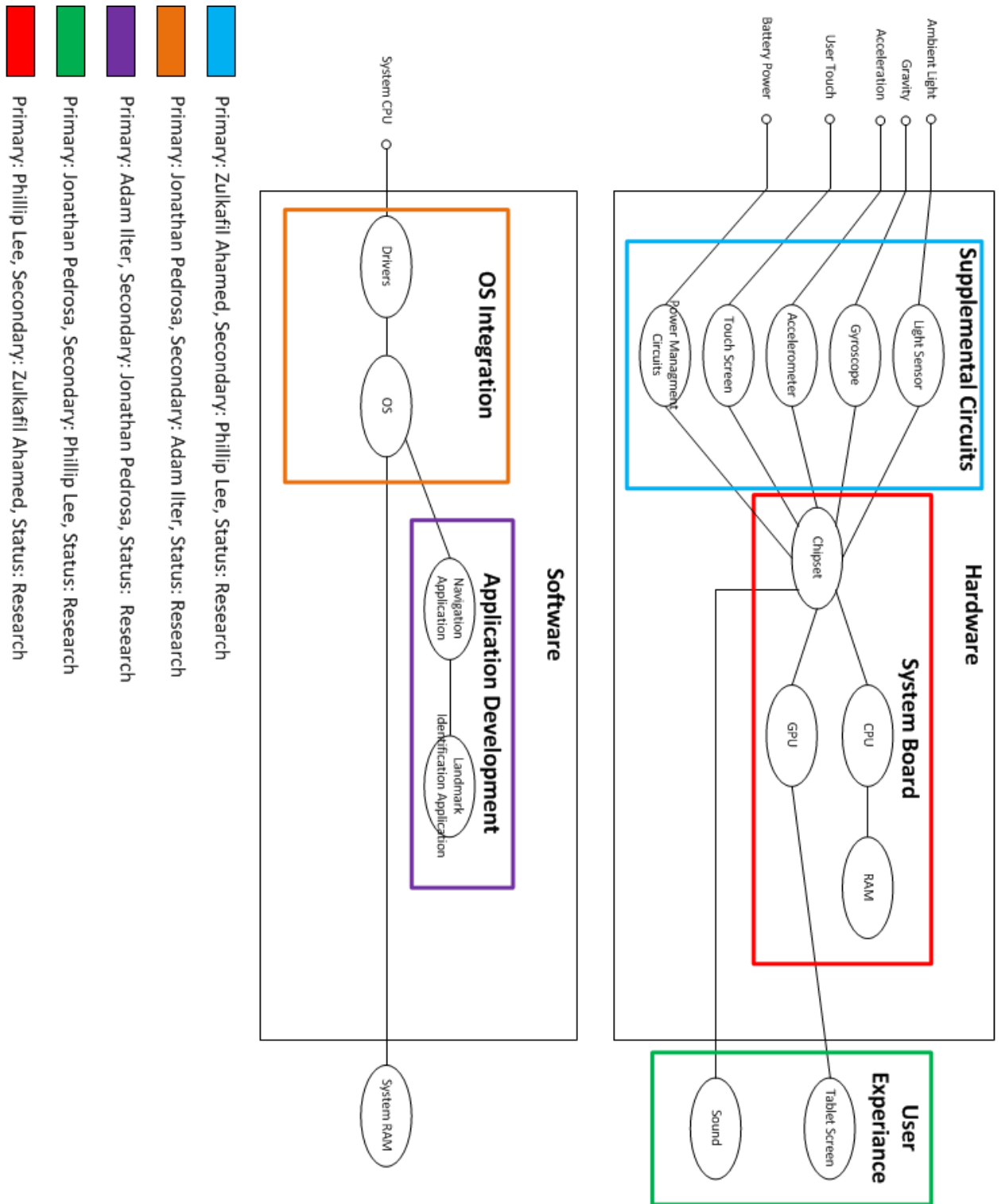
(4) Project Block Diagram: See Appendix 1 on page 3.

(5) Project Budget and Financing: Numbers below represent anticipated cost, final components to be decided.

Component	Cost
Referance Board	\$550
LCD Screen	\$400
Touch Screen	\$70
Circuit Board Printing	\$100
Circuit Board Components	\$400
Battery	\$100
Camera	\$40
Sensors	\$100
Housing Materials	\$40
Charger	\$100
Miscellaneous Materials	\$100
Total	\$2,000

(6) Project time line and Milestones: See Appendix 2 on page 4.

Appendix 1: Project Block Diagram



Appendix 2: Project Timeline

