

A) Objectives

1. Overview
 - 1.1. Objective: to layout an embedded system
 - 1.2. Roles and Responsibilities: Razik will do the software and Stephen will do the hardware. The clients are people that are bored of board games.
2. Function Description
 - 2.1. Functionality: to play Battleship
 - 2.2. Performance: current will be determined using the bench power supply which will help decide the battery
 - 2.3. Usability: There will be two different modules each with a C32 microcontroller, 128 x 64 pixel graphical LCD screen, six buttons for user input, and 6 LEDs to signify a hit. The two modules will be connected via a serial cable.
3. Deliverables
 - 3.1. Reports: The reports for Labs 8 and 11 will be written
 - 3.2. Outcomes: Objectives, hardware and software design, and measurement data for Lab 8 and Lab 11

B) Hardware Design – Pages 2 - 7

C) Software Design – Requirements document already in Objectives

D) Measurement Data

- a. ~50mA measured current, ZigBee and sound shouldn't increase current much since they will be rare compared to the rest of the program. The current will actually be less once sleeping has been implemented
- b. Estimated cost: \$125.84, Bill of Materials: page 8

E) Analysis and Discussion – None