* **Overview**
* **Objective**: To desgin, layout, construct, and test an embedded system.
* **Roles and Responsibilities**: Razik will do everything related to software, which includes the drivers, test code, and final game code. Stephen will do the hardware, which includes designing the printed circuit board, modifying the box, ordering parts, and soldering. The clients are people that are bored of board games, people who want to play Battleship without al the hassle of keeping track of the pegs and ships.
* **Function Description**
* **Functionality**: To play Battleship against a computer.
* **Performance**: Current will be determined using the bench power supply which will help decide the battery. Initial breadboarding with the DP512 suggests that the system will take around 50 mA with 120 mA spikes.
* **Usability**: There will be two different modules each with a C32 microcontroller powered by a battery, 128 x 64 pixel graphical LCD screen, six buttons for user input, 6 LEDs to signify a hit, and a speaker to play sound. A switch will also be on the outside of the box to turn power from the battery on or off. The two modules will be connected via a serial cable.
* **Deliverables**
* **Reports**: The reports for Labs 8 and 11 will be written.
* **Outcomes**: Objectives, hardware and software design, and measurement data for Lab 8 and Lab 11