Using the Stellaris Tiva Board, we would like to propose an overall project that will consist of multiple, smaller projects. The overall project will be to create a mouse-like device, using the accelerator, to create an on-board game that will use the LEDs and push buttons. One push button will zero the game's coordinates, and set a random location within a reasonable proximity of the board. The user will move the board around, similar to a computer mouse, and use the blinking LEDs as an indicator. For example, using the game Marco Polo, a player will yell "Marco" and the other player will respond "Polo." As the first player gets closer, "Polo" will become louder. In our case, as the user moves the device closer to the randomized target, the LED will blink more quickly. Once the LED stays lit, the user can complete the game by pressing another push button and a victory sound will play.

For project one, we will learn and implement the use of the Tiva Board's Accelerometer. This sensor will be needed for position calculations during the game. Using only the x and y axis, the accelerometer data will print to the console every 1/10 second if motion is detected. This data will be raw, and will not incorporate any velocity/distance equations at this time.