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**TO:** Dr. Winikus  
**FROM:** Jesse Both  
**Subject:** Project 2 Alarm System Progress Memo  
**Date:** 10/14/2021

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**PURPOSE:** The task of creating an all-in-one count down alarm system progress update. The content will describe what has been accomplished thus far.

**SUMMARY:** The goal is to design an alarm system that users can control via a 4x4 keypad. An LCD will be used to prompt the user and LEDs will provide a visual que as to when time has expired.

**UPDATE ON PROGRESS:** During the first week of the project, the goal was to figure out the functionality of the keypad and determine the best way for it to accept input from the user. A way to prevent multiple triggers on each press needs to be found, but the basic functionality is working. A solution to the counting timer displayed on the LCD has been found by utilizing the Ticker functionality.

**CONCERNS:** With the way that the keypad is required to be used, it seems that a practical code structure is impossible.

**RECOMMENDATION:** The next steps for this project will be to make the alarm system meet all of the specifications. Basic functionality has been completed, but it is time to put everything together. The LCD with the timer needs to be refined and they system needs to be put into specific states when keys are pressed on the keypad.