
TO: Dr. Winikus

FROM: Bodhiswattwa Basu

Subject: Progress Report for All-In-One Countdown Timer (Project 2)

Date: 15th October, 2021

PURPOSE:

The task is to design an all-in-one countdown timer system. The timer system will have four essential components, the Nucleo, the solderless breadboard with LEDs, the LCD and the 4x4 keypad.

SUMMARY:

The lectures and demonstrations in class were useful in thinking about the first few beginning stages of the project. The keypad's connection to the breadboard which in turn lights LEDs is crucial and that logic is to be built on.

UPDATE ON PROGRESS:

Once the initial connections from columns 3 and 4 and rows 1 and 2 were made, LEDs were added in connection to the ports to sense if key that is being pressed. The output would be displayed on the serial monitor.

CONCERNS:

As of now, the switches are not reading in properly, they are being mislabeled and have too much of a bounce before any of the switches have been pressed – this could be a manufacturing fault, however, the problem seems to persist with other keypads and also with the implementation of addressing bounce.

RECOMMENDATION:

Meeting with the Teaching Assistants will provide more clarity as to how to address the bounce better than what has been implemented. Once the keypad's keys are being registered correctly, implementation of the timer system can begin with the system clock. The LCD will also be added into see if the keypad's keys can be registered there too.