EC450 Write up

I implemented my recording by storing a counter value of how long the LED was on into an array. Whenever the button is held down, the led will stay on and a counter increments. When the button is not pressed, another counter will increment. To determine when to properly clear the counter and store its value into an array, I had an if statement that detected when the button was released and when it was first pressed. To prevent the msp430 from crashing or going out of the array I had a counter whenever anything was put into the array. Once this value reaches 50 or more (in case there were extra presses), it goes to an if statement that turns on the green led for 2 seconds indicating you cannot have this many presses. Also in this if statement it sets all the counters to zero, restarting the recording process.

The playback process starts once the button has not been pressed for 10 seconds. This was implemented by the counter that was in the if statement of no button presses. Once the counter reached the value, the playback flag was changed from 0 to 1. This made the program go into the record if statement. Once the program is in the record state, it has a decrementing counter set equal to the value of each of the elements in the array. Then another counter increments up until it reaches the size of the array. Once this happens, the playback flag gets set back to 0, so it goes back to the record state.

The limitations on my code is that the array cannot go past 50 for volatile unsigned ints. If it does I get a compiling error saying I do not have enough ram to link the code to the msp430 launchpad.