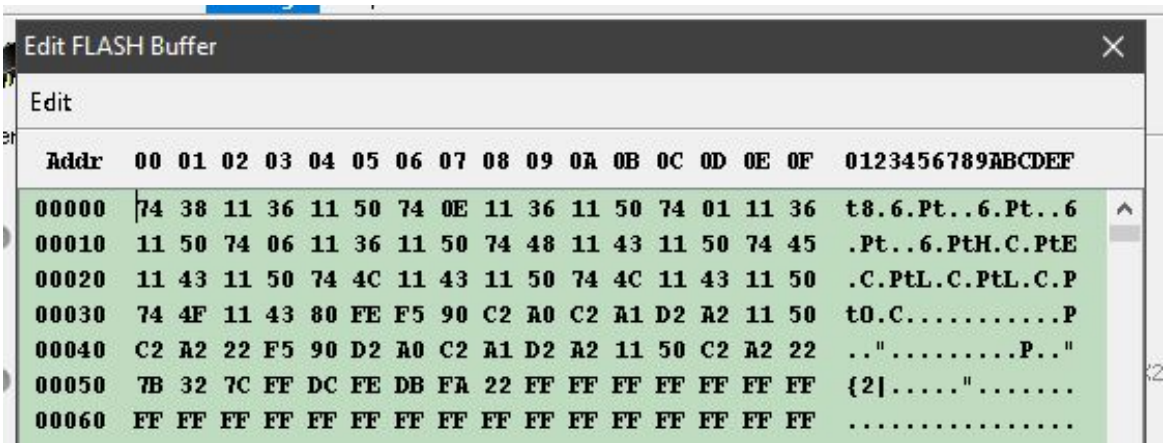
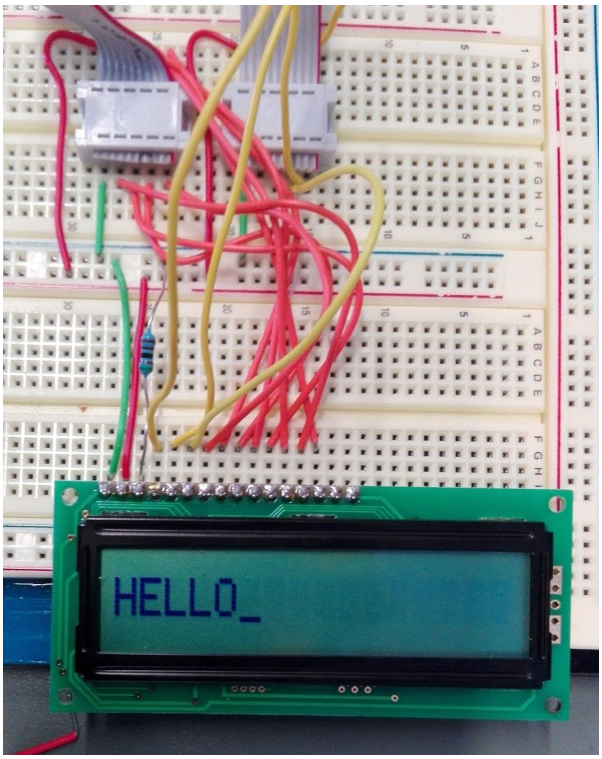
Lab Session 5

Introduction to microprocessor machine code programming



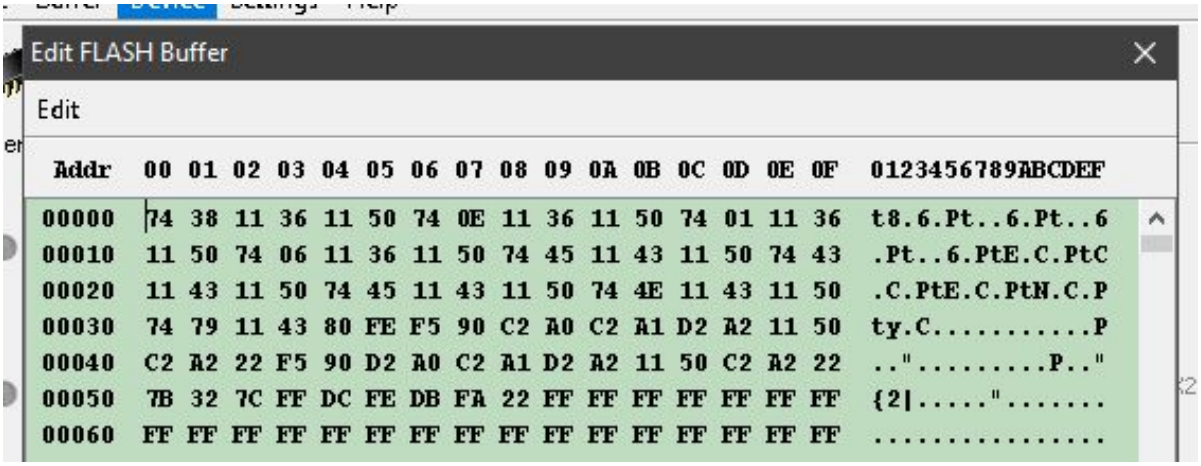


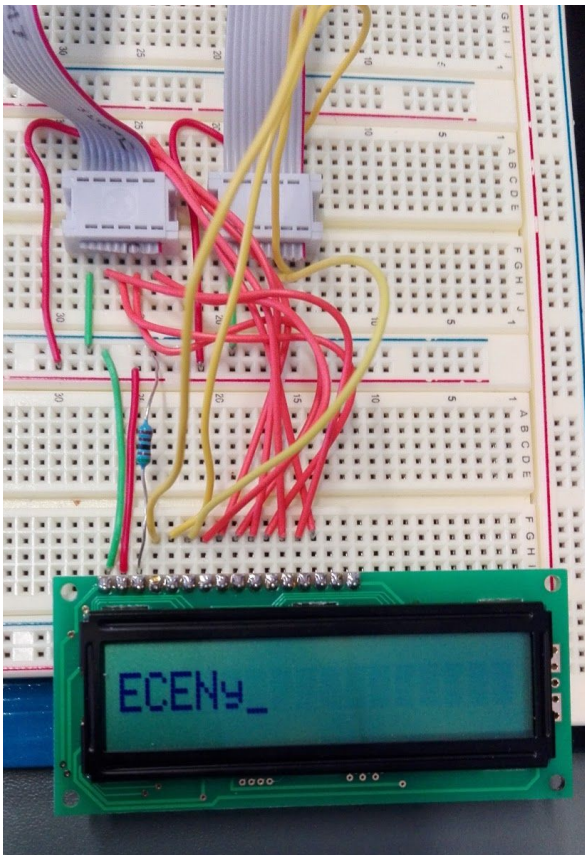
The above buffer is displaying a .hex file containing the machine instructions to display the ASCII string ‘HELLO’ on the external LCD screen.

This uses 2 main instructions

74, MOV A #data[2B] : Add 2 Bytes of immediate data to Accumulator

11, ACALL (P0) [2B, 2C] ACALL unconditionally calls a subroutine located at the indicated address, in this case PORT 0 i/o





The Above buffer is displaying the edited .hex file to display the ASCII string ‘ECENy’

To do this I editing the the absolute data following the *74* instructions, ie the data that is moved to the accumulator to be processed.

So I insert the ascii values at the 74 MOV A calls that are responsible for processing data to the LCD data line.