

EC336: Embedded Systems

Interfacing Display Devices

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1 Goal of the Lab

The aim of this lab was to interface the chosen microcontroller with display devices such as LEDs, 7-segment displays and LCD displays. The microcontroller chosen by our group is TI's MSP430G2.

2 Components Used

For this lab the components used are :

- MSP430 microcontroller
- LEDs
- 2.2 k Ω resistors
- 2 7-segment displays
- LCD displays

3 Board Details

Some of the features of the MSP430 are -

- 16-bit RISC architecture
- Von-Neumann architecture
- Upto 16 MHz clock frequency
- Low power consumption and five power saving modes
- 16 general purpose registers
- 10-bit ADC

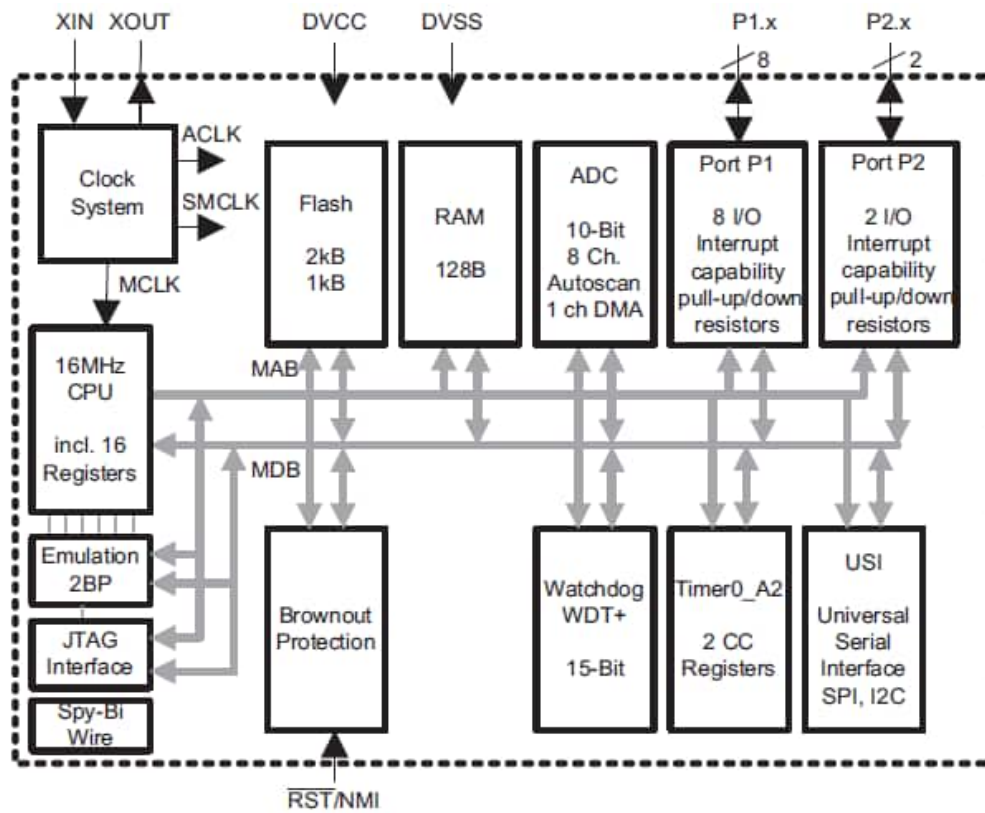


Figure 1: MSP430 Architecture

- Supports SPI, I2C, UART and USB interfaces
- Has 10 GPIO pins divided as two ports (8-bit and 2-bit respectively)

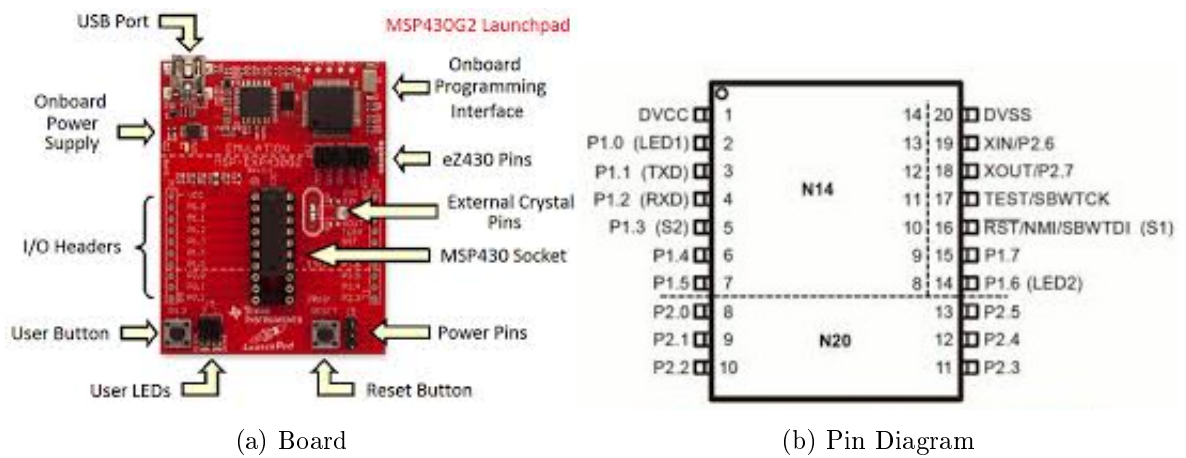


Figure 2: Board details