

COMPENG 2DX4 Lab 5 Setup

In order to perform this lab, you will need:

- The TI MSP-EXP432E401Y microcontroller board
- A PC to connect the above to device via USB
- The Keil MDK with packages for the above mentioned microcontroller
- A breadboard
- A 16-key Keypad
- Wires, pins, resistors
- (Bonus milestone) 8 LEDs

If you have missed the studio for this lab, it is strongly recommended that you review it. The code is especially helpful for this lab.

Milestone 6.2 through 6.4 Setup

Pins on the keypad are numbered 1 through 8. The leftmost one in the picture is pin #1 and the pins are in order.

Connect:

- 3V3 on the microcontroller to a positive pin (+) on the breadboard
- Four 10k ohm resistors from positive to different rows on the breadboard
- Each resistor to a pin on the keypad and microcontroller:
 - The first resistor to PM0 and pin 5 on the keypad
 - The second resistor to PM1 and pin 6 on the keypad
 - Etc...
- Pins 1:4 on the keypad to PE0:3

Milestone 6.4 (Bonus)

Not shown in picture: Place 8 LEDs with resistors on the breadboard with each connected to different pins on the microcontroller.

