

Arduino UNO and OLED

ELC 4438 Lab Manual

March 30th, 2016

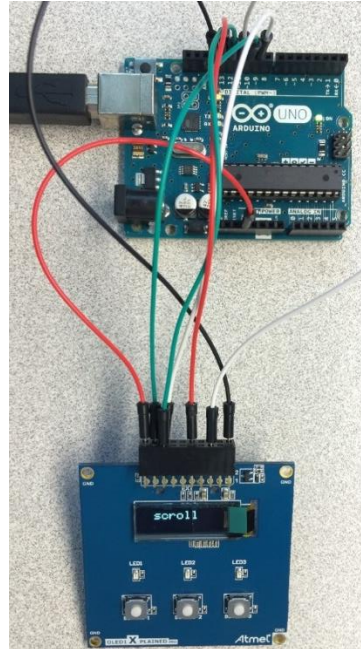
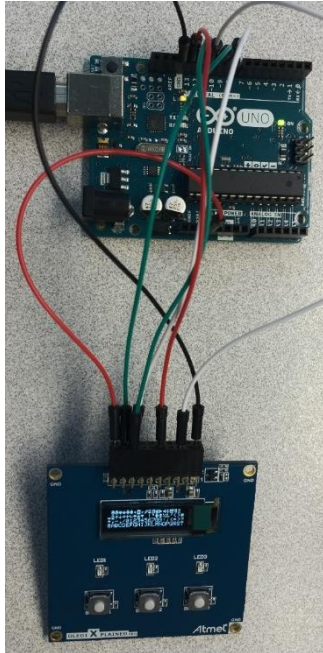
Part 1. UNO Blinking LED

1. Follow the tutorial <https://www.arduino.cc/en/Tutorial/Blink> from Arduino.

Part 2. Arduino UNO and OLED SSD1306 Display

1. Follow the tutorial <https://learn.adafruit.com/monochrome-oled-breakouts> from AdaFruit.
2. Read the Atmel OLED1 User-Guide to find out the pin or see the table below.

Atmel OLED1		Arduino UNO	
Pin	Function	Pin	Function
16	SPI_MOSI	9	DATA
18	SPI_SCK	10	CLK
5	DATA_CMD_SEL	11	D/C
15	DISPLAY_SS	12	CS
10	DISPLAY_RST	13	RST
7	LED1	2	Digital I/O
8	LED2	3	Digital I/O
6	LED3	4	Digital I/O
9	BUTTON1	5	Digital I/O
3	BUTTON2	6	Digital I/O
4	BUTTON3	7	Digital I/O
19	GND		GND
20	VCC		3.3V



3. Create three animations using the graphic library and show it when you press Buttons 1 to 3. Turn on the LEDs 1 to 3 as well.

Show your results to your lab TA.