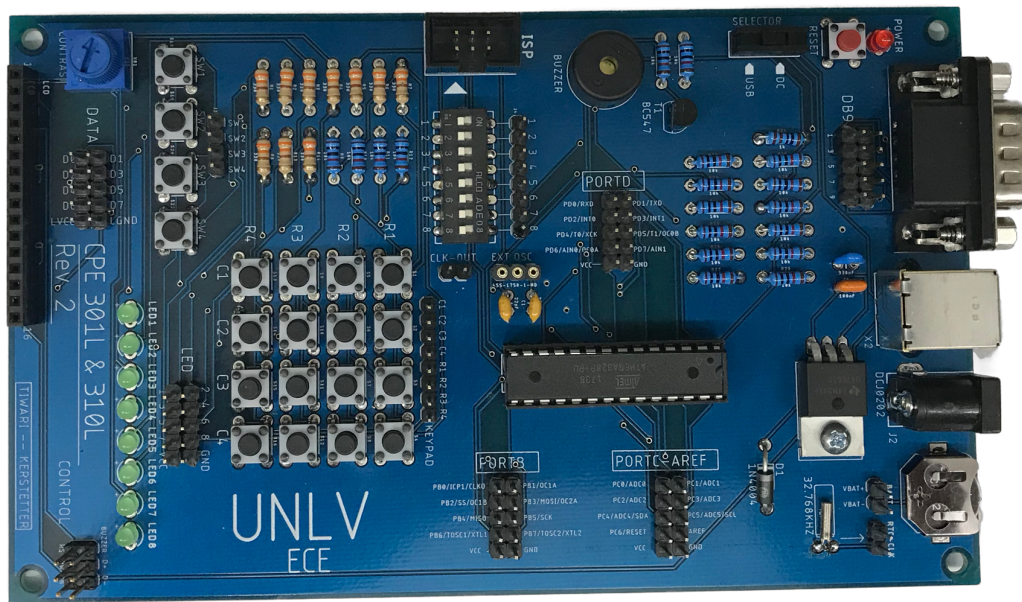


AVR Development Board Manual

UNLV ECE Board V2



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1. LCD Header. Please read the number written at the either end of the header and on the back of the LCD, align the number while inserting the LCD in the header.
2. CONTRAST: This potentiometer controls the contrast of the LCD Display.
3. DATA: Data for LCD. LVCC and LGND should align to VCC and GND of the port that is used for the data. Control pins are at 21.
4. SW1-SW4: Switches which can be used as a general purpose input signal. Male header is the output for respective switches, when pressed is logic 1.
5. Keypad: Keypad array. C1,C2,C3,C4,R1,R2,R3,R4 are used to excite and detect the pressed key.
6. DIP Switch: 1-8 are the output pins for the respective switch.
7. ISP: This is an ISP connector to connect AVR ISP programmer.
8. BUZZER: This a piezoelectric buzzer. Signal to the buzzer is at 21.
9. SELECTOR: This is used to select the power source between USB and Adapter.
10. RESET: This switch resets microcontroller.
11. POWER: This is a power indicator.
12. DB9: This is a DB9 connector and pinout for respective pins of DB9 connector.
13. X2: This is used for USB power supply.
14. J2: DC power adapter jack.
15. BATT: This is a battery source. VBAT+ and VBAT- are positive and negative terminal of the battery.
16. RTC-CLK: This is a connection to 32.768KHz clock.
17. PORTB/PORTC-AREF/PORTD: This is a pin out for GPIOs and other peripherals of the microcontroller. VCC and GND at each group can be used for a logic 1 and logic 0 respectively.
18. CLK-OUT / EXT OSC: EXT OSC is used to connect external clock and CLK-OUT is a pinout that can be connected back to the microcontroller.

19. LED: Pin out for LEDs

20. LED Array

21. Pinout for LCD, Buzzer and USB. RS, RW, EN are control pins for LCD, DATA pins are at 3. Buzzer is an input signal for a buzzer. D+, D- are data line for a USB.