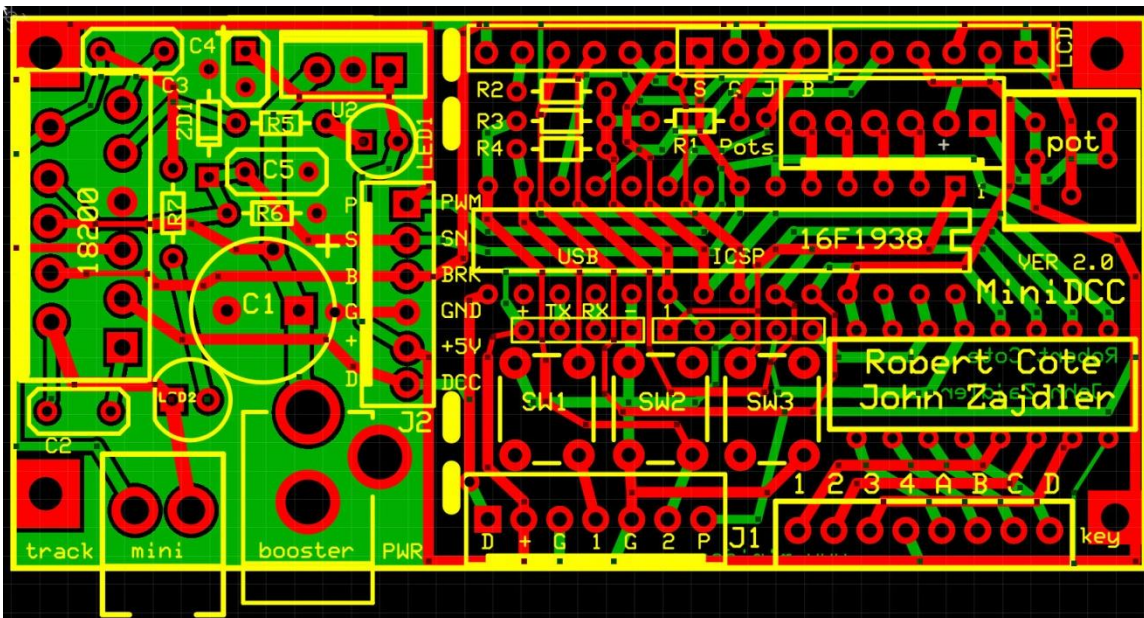


R2 – 51 ohm or straight jumper (depending on LCD backlight requirements)
 R1,R3, R4 – 2.2k to 4.7k resistors
 R5 – 470 ohm to 4.7 k resistor
 R6 – 33k resistor – (critical – do not substitute – used in sensing CV values)
 R7 – 1k resistor
 Pots 1 to Pots4 – 5k to 10 k with optional direction switch
 Led1 – Regular LED (yellow or white)
 Led2 – Bipolar Red/White led (or back to back discrete leds)
 SW1, SW2, SW3 – spst miniature switches (Menu – Emergency Stop – Reset)
 POT – 5k – LCD brightness
 U1 - LM18200T – Dual half bridge
 U2 – 7805 – 5 volt regulator (or any electronic substitute)
 U3 – Pre-programmed 16F1938 pic
 ZD – Zener Diode 5.1 volts (IN5231B)
 J1,J2,J3... various Molex pin connectors as required
 LCD – 16x2 or 20x4 standard LCD display (Hitachi HD44780 compatible)
 Pre-programmed (28 pins) PIC 16F1938
 Keypad – 4x4 matrix keypad – Flat keypad interface directly – Telephone Type Keypad
 may require mirror wire switching (1234 – ABCD) becomes (4321 – CDAB) on the keypad side

Note 1: A jumper must be inserted between point J and B (see top row of PCB) to enable the MiniBooster (Brake) pin of the LM18200T for Version 2.0 board. Version 2.1 board does not require the jumper.

Note 2: If a potentiometer with Forward/Reverse switch is used, the switch must be connected to short Column 3 with Row 1,2,3 and 4 (to simulate keypad Direction keys).

Note 3: Board must be populated with SW1 for external menu switch to function properly.



Technical support available directly from minidcc@videotron.ca
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