

Schematic & Parts List: A Simple LCD CLOCK Using PIC16F1937 & DS1307

PIC Clock: 0312

Clock Front Picture:



Setting Buttons:

Sec, Min & Hour

Date, Month & Year

“DWN”: hold this button to reduce numbers

Powering Clock:

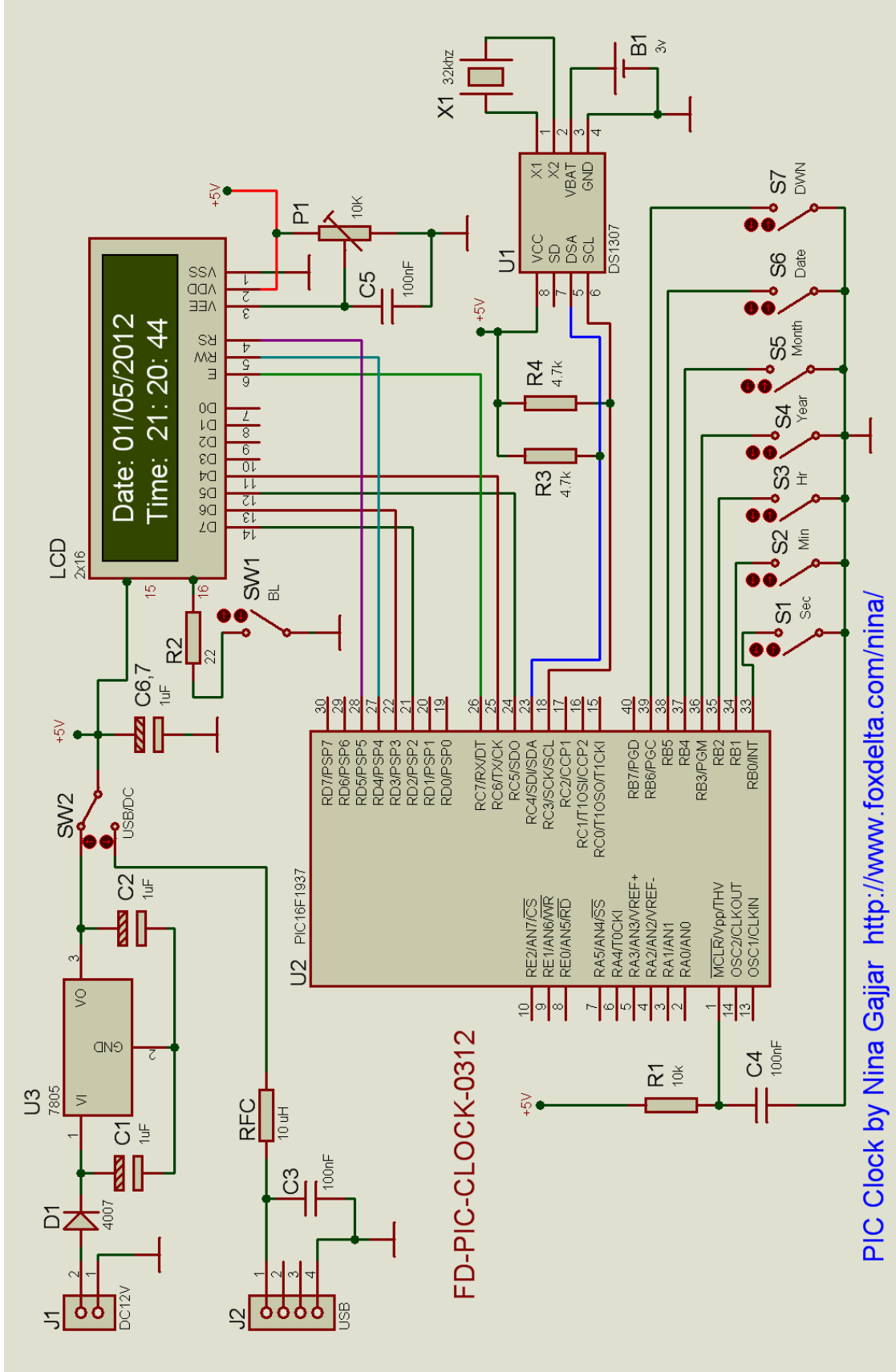
1. DC12 V using and AC Adapter. J1
2. USB J2

Push Switches:

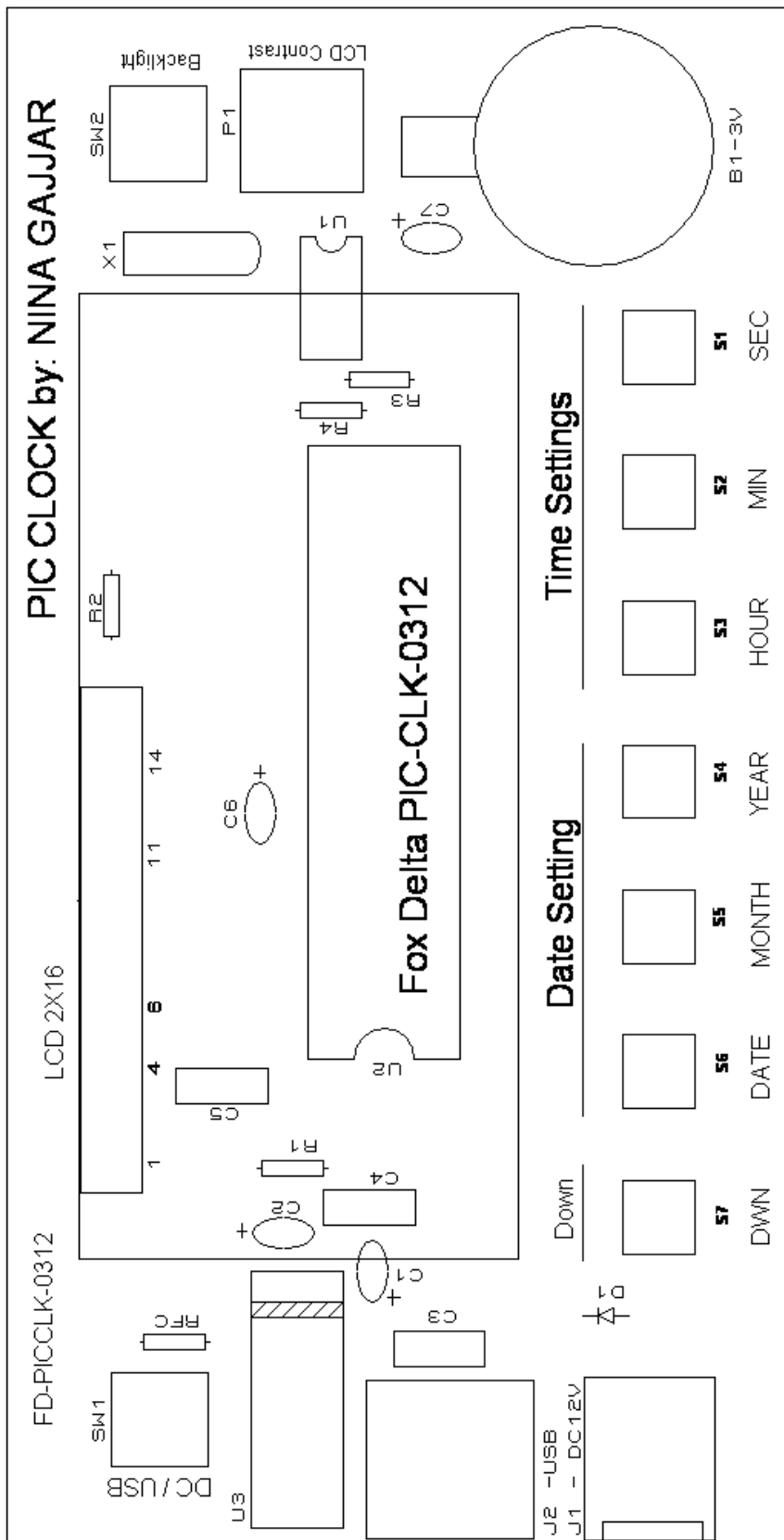
1. SW2: Selects Power Source: USB or DC12V
2. SW1: :CD Backlight ON / OFF

P1 Preset: Adjust LCD Contrast

Clock Schematic:

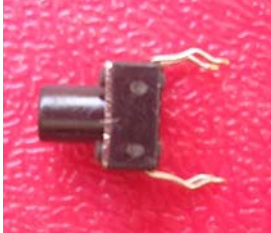


PIC Clock PCB Silk: (TOP SIDE OF PCB)



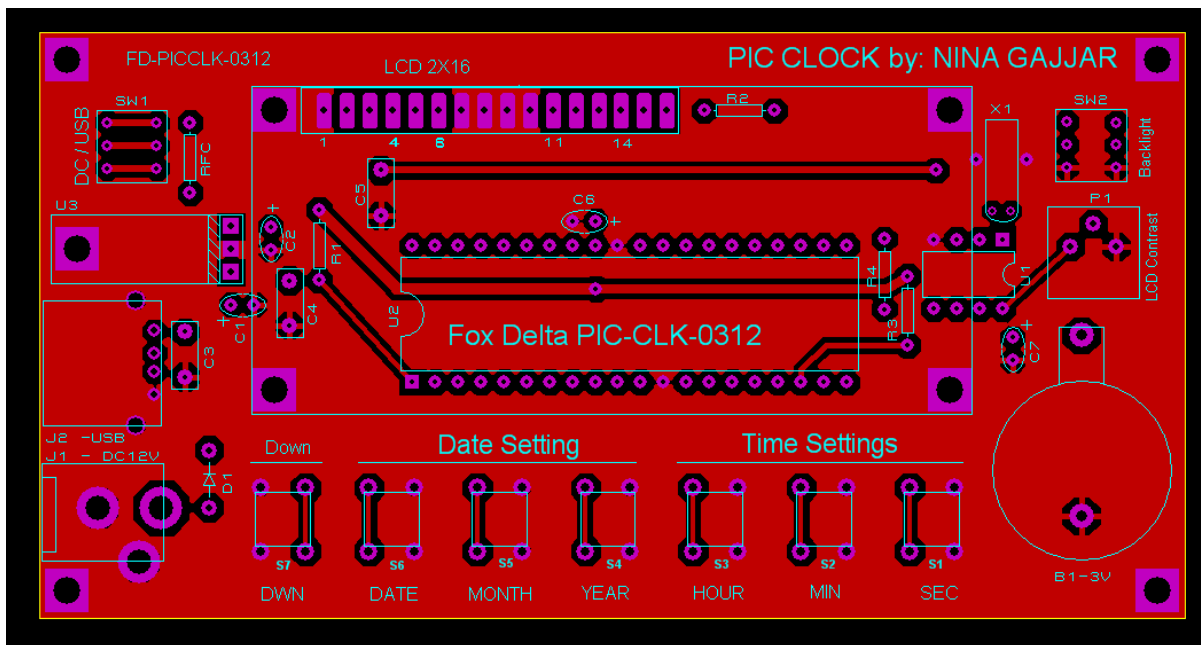
Clock Parts List:

No	PART ID		Details
		Resistors	
1	R1		Resistor 10K 1/4w
1	R2		Resistor 22 Ohms
2	R3, 4		Resistor 4.7K Ohms
		Capacitors	
3	C3, 4, 5,		0.1uF Poly
4	C1, 2, 6, 7		1uf Tantalum 35V
1	RFC		10uH RFC
		Other Parts	
1	B1		3V Cell Holder
1	U3		7805 5V Regulator
1	U2		PIC16F1937 40 PIN DIP
1	U1		DS1307 RTC Chip

1	Socket		40DIP
1	Socket		8DIP
2	LCD		2x16 LCD Display with 16PIN SIL Male/Female Mounting strips
1	D1		Diode 1N4007
1	P1		10K Bourns 3386
2	SW1, 2		PUSH ON/OFF SWITCHES with Knob
7	S1 to S7		4mm Push button
1	X1		32KHZ Crystal
1	PCB PIC-Clock-0312	NA	Double Sided PTH PCB

1	J1		DC 12V Connector
1	J2		USB Connector
1	LCD Mounting Hardware		Support for LCD

TOP BOARD VIEW:



Have Fun!!

Regards/Nina Gajjar

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