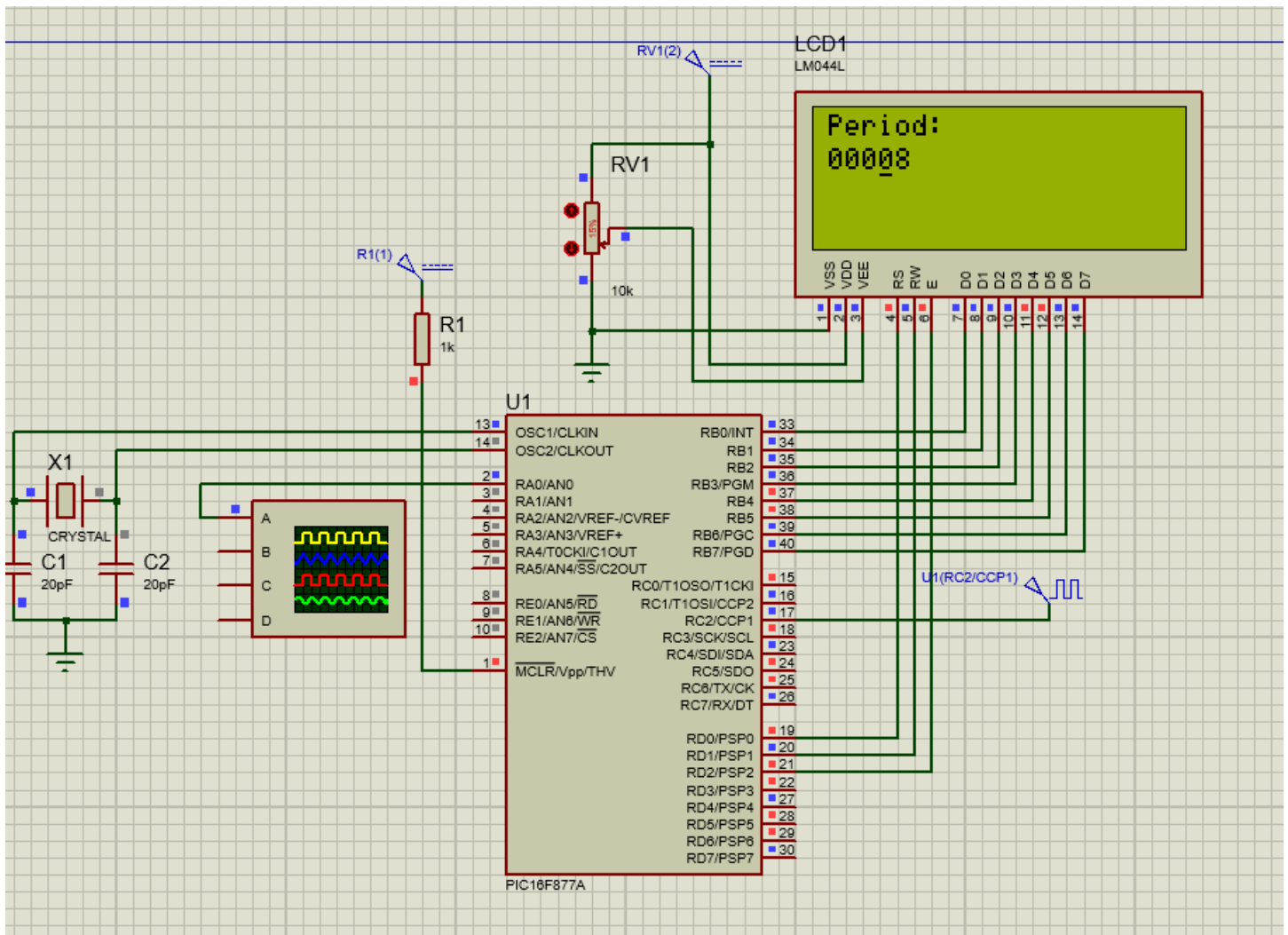


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Part I

Sample calculation

$$timeout_n = \left(\frac{1}{\frac{4 \times 10^6}{4}} (8)(1) \right) 1 \times 10^6 = 8s$$



Part II

Using the formula to solve for PR2:

$$PR2 = \frac{1}{(4)(2.5 \times 10^{-7})(16)}$$

Frequency (Hz)	PR2 in decimal	PR2 in hexadecimal
10	6249	1869
100	624	270
1000	62	3E

Using the formula to solve for (CCPR1L:CCP1CON<5:4>)

$$(CCPR1L: CCP1CON < 5: 4 >) = \frac{(duty\ cycle)(\frac{1}{Hz})}{\frac{16}{4 \times 10^6}}$$

Frequency (Hz)	Duty Cycle	CCPR1L:CCP1CON <5:4> in decimal	CCPR1L:CCP1CON<5:4> in binary	CCPR1L	CCP1CON<5:4>
10	10%	2500	10 01110001 00	71	0x0
	25%	6250	110 00011010 10	1A	0x2
	50%	12500	1100 00110101 00	35	0x0
	75%	18750	10010 01001111 10	4F	0x2
	95%	23750	10111 00110001 10	31	0x2
100	10%	250	00111110 10	3E	0x2
	25%	625	10011100 01	9C	0x1
	50%	1250	1 00111000 10	38	0x2
	75%	1875	1 11010100 11	D4	0x3
	95%	2375	10 01010001 11	51	0x3
1000	10%	25	00000110 01	6	0x1
	25%	63	00001111 11	F	0x3
	50%	125	00011111 01	1F	0x1
	75%	188	00101111 00	2F	0x0
	95%	238	00111011 10	3B	0x2