

Control board:

Ref	Qty	Description	Digi-Key Part #	
U1	1	PIC18F2420 micro-controller	PIC18F2420	\$3.44 (10)
U2	1	LM7805ACT 5V regulator	LM7805ACT	\$0.57 (10)
U3-5	3	74LS574 Octal D Flip Flop	74LS574	\$3.45 (10)
U6-8	3	74HC574 Octal D Flip Flop	74HC574	\$1.65 (10)
D1	1	1N4148 diode	1N4148FS	\$0.05 (10)
OPTO1-5	5	CNY74-4 4 Chan Opto-isolator	----	\$5.50 (10, Mouser)
OPTO6-12	7	K845 4 Chan Opto-isolator or can be LTV845 (Digikey)	---- 160-2041-5	\$6.51 (10, Mouser)
OPTO13	1	LTV825 Opto-isolator	160-2039-5	\$0.50 (10, Mouser)
ISO14	1	6N138 Opto-isolator (MIDI)	160-1795	\$0.57 (10)
R1-12 R14-21 R46	21	220 ohm, 1/4W 5% resistor	220Q	\$1.05
R13	1	10K ohm, 1/4W 5% resistor	10KQ	\$0.05
R22-33 R35-45 R47-48 R50-53	29	2.2 K ohm, 1/4W 5% resistor	2.2KQ	\$1.45
R34	1	0 ohm, 1/4W resistor (optional)	0.0Q	\$0.05
R49	1	4.7K ohm, 1/4W 5% resistor	4.7KQ	\$0.05
R54-57	4	47K ohm, 1/4W 5% resistor (schematic shows 10K, but 47K is OK and will draw less current)	47KQ	\$0.20
R58	1	1.5K ohm, 1/4W 5% resistor (schematic shows 47K, but that value is incorrect)	1.5KQ	\$0.05
R59,60	2	240 ohm, 1/4W 5% resistor	240Q	\$0.10
R61	1	1.0K ohm, 1/4W 5% resistor (not on schem yet)	1.0KQ	\$0.05
C1,2	2	22 pF Ceramic cap	BC1005CT	\$0.24 (100)

C3,4,5, 6,7,8, 11,12, 14 14,15, 16,19, 20,21		0.1 uF Ceramic cap	BC1148CT	\$1.68 (100)
C9,10	1	100 uF, 16V Electrolytic Cap (schematic shows 4.7 uF for C9, but use 100 uF instead)	493-6095-1	\$0.90 (1)
X1	1	6.5 MHz crystal	X415	\$0.69 (10)
	1	28-pin socket for PIC chip	AE10286	\$0.40 (10)
	6	20-pin socket for 574's	AE9998	\$1.68 (10)
	12	16-pin socket for OPTO's	AE9992	\$2.88 (10)
	2	8-pin socket for OPTO13,14	AE9986	\$0.36 (10)
	8	14-pin IC socket for cables	ED3314	\$10.56 (10)
J1	1	10-pin dual-row male header (cut to make 2x5 header)	S2011E-36	
SW1	1	4-pos DIP switch	CT2064	\$0.79 (1)
J2	1	Power Jack	CP-102A	\$1.00 (1)
	1	ASC10H Ribbon cable female	ASC10H	\$1.00 (10)

Total: \$47.47

Parts total:

PC Bd:	\$25.00
Parts:	\$47.47
Four 1.5' Dip Cables C6PPS-1418G	\$11.28

Total:	\$83.75

Not included:

10-conductor ribbon cable for MIDI and LED
MIDI Jack
Activity LED

Numbers in parenthesis show qty purchased for price shown.