Bill Of Materials for JH. Krautrock Phaser (PCB mount components listed only.)
Errors excepted, subject to modifications.

Quantity	Part name	Remarks
	Semiconductors	
12	741	Opamp; many manufacturers. Example: LM741
1	1458	Dual Opamp; many manufacturers. Example: LM1458
1	LM317T	positive regulator TO220
1	LM337T	negative regulator TO220
1	BC550C	small signal NPN
1	BC560C	small signal PNP
3	BD239C	NPN TO220
1	4007	CMOS transistor array; many manufacturers. Example: CD4007
6	1N4002	Diode
9	1N4148	Diode
	Heatsinks	
4	Reichelt V 5640B or similar	I've seen a similar one at Mouser. Check the dimensions ...
	Capacitors (Voltage rating 25V or higher)	
1	33pF Ceramic	2.5mm spacing (Board grid is actually in inches – but I think 2.54mm components are sold as "2.5mm" – same for 5, 7.5, 10mm ...)
1	680pF Ceramic	2.5mm spacing
1	1nF Ceramic	2.5mm spacing
8	33nF ("Cx")	5mm or 7.5mm spacing
1	100nF ("u1")	5mm
1	220nF ("u22")	5mm or 7.5mm spacing
1	220nF ("u22")	5mm spacing
1	1uF	5mm or 7.5mm or 10mm spacing
2 ... 13	100nF SMD 1206 or 0805	Bypass Caps on solder side. With 741 type opamps, I only need two of these caps (near the voltage regulators). If you want to experiment with other opamps, you may need more of these; pads on solder side are provided.
2	4.7uF Electrolytic	
4	10uF Electrolytic	
2	10uF Tantal Electrolytic	near voltage regulator
	22uF Electrolytic	
4	47uF Electrolytic	
	100uF Electrolytic	
2	470uF / 40V Electrolytic	the "big ones"
	Trimpots	
1	1k 10mm trimpot	Piher PT-10 horizontal mount or similar
1	10k 10mm trimpot	Piher PT-10 horizontal mount or similar
1	470k 10mm Trimpot	Piher PT-10 horizontal mount or

		similar
	Potentiometers	
3	50k linear	ALPS RK11 type, vertical mounting (or any other type, if you connect it with wires to the PCB.)
1	50k log (or –log)	ALPS RK11 type, vertical mounting (or any other type, if you connect it with wires to the PCB.) With log Pot, you get LFO "Period", with –log Pot, you get LFO "Rate"
	1% 0.25W Metal Film Resistors	1k2 means 1.2 kOhm etc.
2	47 Ohm	may be 5% carbon type
1	100 Ohm	
1	110 Ohm	
1	220 Ohm	
2	240 Ohm	
2	1k	
1	1k8	
3	2k4	
2	2k7	
1	3k6	
1	3k9	
3	4k7	
1	5k1	
1	6k8	
2	9k1	
8	10k	
1	13k	
16	15k	
2	18k	
4	22k	
2	82k	
3	100k	
1	180k	
4	1M (1 MegOhm)	may be 10% Carbon
	5 Watt Resistor	
1	120 Ohm / 5 Watt	axial type
	Light Depending Resistors (LDR)	
8	M 9960 11A	Perkin Elmer Flatpack type. (If you have pre-ordered your boards in 2007, these came with the PCBs.)
	Lamps	
3	7V 100mA Incandescent Lamps E10 socket	One of these goes to the front panel. Reichelt L3510 (tested) or similar. Apparently http://www.elektronica-online.nl/ sells 7V 100mA lamp, too (untested).
2	Lamp holders Reichelt Fassung F4 or similar	... or simply solder the lamps into the board!
	Relay	
1	12V with 2p2t contacts	You need a non-polarized relay

		that fits into a DIP16 footprint. Tested are: Meder TC12 K002 (now obsolete) and Finder 30.22.9 12V (widely available)
	Fuses	
2	Fuse Holder 5x20mm	ELU 199060 (Reichelt PL112000) or similar
2	200mA T (slow blow) fuse 5x20mm	
	Board connectors	
	Of course you can solder the wires directly to the board, and then don't need any connectors! Here's what connectors I used:	
6	PSS 254/2G (2pin, 2.54mm spacing)	in Germany, you get them from www.reichelt.de
3	PSS 254/3G (3pin, 2.54mm spacing)	
1	PSS 254/5G (5pin, 2.54mm spacing)	