

**DOOUT32 card parts list (in recommended order of assembly)**

Qty.	Symbol	Description
1	S1	16-pin DIP socket (Jameco 112221)
6	S2-S7	20-pin DIP sockets (Jameco 112248)
1	S8	14-pin DIP socket (Jameco 112213)
1	RN1	2.2K $\Omega$ 7-element SIP resistor network (Digi-Key 770-81-R2.2K)
4	RN2-RN5	470 $\Omega$ 8-element DIP resistor networks (Jameco 108581)
4	RN6-RN9	4.7K $\Omega$ 9-element SIP resistor networks (Jameco 24660)
1	SW1	6-segment DIP switch (Digi-Key CT2066)
2	H1, H2	12-pin Waldom side entry connectors (Mouser 538-09-52-3121)
1	H3	32-pin Waldom right angle header (make from 24-pin right angle headers Mouser 538-26-48-1242 – see text)
8	C1-C8	.1 $\mu$ F, 50V monolithic capacitors (JDR .1UF-MONO)
2	C9, C10	2.2 $\mu$ F, 16V tantalum capacitors (Jameco 94001)
1	J1-J4	Install long jumper at each location using standard current-sinking or short jumper when using current-sourcing. (make from spare ends of resistor leads)
32	Q1-Q32	2N4401 NPN small signal transistors (Jameco 38421) for standard current-sinking or 2N4403 PNP small signal transistors (Jameco 38447 when using current-sourcing)
1	U1	74LS138 3-to-8 decoder (Jameco 46607)
1	U2	74HCT688 8-bit magnitude comparator (Jameco 45129)
4	U3-U6	74HCT573 octal D-type latched flip-flops (Jameco 45090)
1	U7	74LS541 octal non-inverting buffer/line driver (Jameco 47870)
1	U8	74LS04 hex inverter (Jameco 46316)

Mating connector for cable

4	—	8-pin Waldom terminal housings (Mouser 538-09-50-3081))
32	—	Crimp terminals (Mouser 538-08-50-0106 for wire sizes 18-20 or 538-08-50-0108 for wire sizes 22-26)

Author's recommendations for suppliers given in parentheses above with part numbers where applicable. Equivalent parts may be substituted.