

## pacemaker\_bom

Designator	Value	Notes
U1	TL072	8-PDIP, any similar or better opamp is fine
U2	LM339	14-PDIP package
U3	LM555	8-PDIP, Fairchild recommended
U4	74HC14	14-PDIP package
U5	74HC00	14-PDIP package
U6	7805	TO-220 package
C1	0.1uF	all non-polar caps can be either poly or MLCC
C2	4.7nF	0.1" lead spacing, 0.15" wide, 0.08" thick
C3	0.1uF	although other sizes will probably fit just fine
C4	0.1uF	
C5	1uF/50V	1uF caps are 4mm OD, 1.5mm LS, and 7mm high
C6	1uF/50V	they can be up to 5mm OD, and the LS doesn't matter too much
C7	1uF/50V	they can also be up to 11mm high, but that is pushing it
C8	0.1uF	
C9	0.1uF	
C10	100uF/25V	100uF caps are 5mm OD, 2mm LS, and 11mm high
C11	100uF/10V	They can be taller than 11mm, but then must be bent over
C12	100uF/25V	they can be up to 6.3mm OD, but that will be tight
C13	100uF/25V	the LS doesn't matter that much
C14	0.1uF	
C15	0.1uF	
C16	100pF	
C17	100pF	
R1	10k	1/4W, 1% preferred
R2	10k	
R3	10k	
R4	10k	
R5	10k	
R6	100	
R7	2.2k	
R8	2.2k	
R9	2.2k	
R10	2.2k	
R11	10k	
R12	10k	
R13	10k	
R14	10k	
R15	10k	
R16	10k	
R17	10k	
R18	10k	
R19	100k	
R20	100k	
R21	150k	
R22	220k	
R23	220k	
R24	1k	
R25	100k	
R26	12k	
R27	1k	
R28	100k	
R29	2.2k	
R30	220k	
R31	10k	
R32	10k	
R33	10k	
R34	470k	

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R35	36k	
R36	36k	
R37	36k	
R38	36k	
R39	51k	
R40	51k	
R41	51k	
R42	51k	
R43	100k	
VR1	1MA	Alpha 9mm vertical pots
VR2	50kA	Smallbear SKU: 1012A
VR3	50kB	<a href="http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount/">http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount/</a>
VR4	50kB	
VR5	50kA	
VR6	50kA	
VR7	50kB	
VR8	50kB	
S1	DPDT ON-ON-ON	Multicomp 2MD6T1B5M2RE
S2	DPDT ON-ON-ON	<a href="http://www.mcmelectronics.com/product/26-2160">http://www.mcmelectronics.com/product/26-2160</a>
D1	1N4148	Any small signal diode will work
D2	1N4148	DO-35 package
D3	1N4148	
D4	1N4148	
1/8" Jacks	EH-JACK35MMV	<a href="http://shop.erthenvar.com/collections/accessories/products/3-5mm-vertical-jacks">http://shop.erthenvar.com/collections/accessories/products/3-5mm-vertical-jacks</a>
	Headers	female header example: Harwin M20-7820342 (Mouser)
		0.1" SIP header, both male and female: 10 x 3P and 1 x 6P