

Get to 9 Parts List

Part	Supplier	Part no		URL	Cost per	Qty \$100+	Notes
	Battery Holder and alternatives		Note				
Recommended 9V PCB Mount battery holder	Altronics	S5048		https://www.altronics.com.au/p/s5048-9v-battery-holder-pcb-mount/	1.15	\$0.95	Part number on the holder is BH-9VPC, there are many different supplier of this in Australia. Also seen it at Jaycar and Radio parts
Notes 1)	PCB Mount 9V battery holders are available from other suppliers with different pin spacing, the board can accommodate pins spacing from 12 to 14.5 mm						
2)	The holes for the PCB mount are slotted to accomodate different pin spacings - the only holder i have tried is the Altronics one with a spacing of 12.5mm						
3)	You can also use a 9V battery holder with leads, just use the same holes as the PCB mount holder and stick it on slightly overlapping the back of the ON/OFF switch						
	Use 2mm double sided tape to hold the battery holder on to the board regardless of the type used, to take the strain off the pins when the board is held and when the b						
Notes	Use double sided tape to hold the battery holder on to the board regardless of the type used, to take the strain off the pins when the batteries are replaced						
Double sided tape	Have a look at Repco, or Supercheap Auto or the following. 19-24mm wide, tape 2mm thick (may have to use 2 - 1mm layers). But you only need a 10mm long section so 1 roll goes a long way			http://www.handyhardware.com.au/double-sided-adhesive-tapes/ T1A is what I use, 2M long (will do 200 Kits), 24mm wide and 2mm thick \$8 for a role.	0.04	0.04	
LED	Ledsales	5MM_DIFF_RED	Red colour	https://www.ledsales.com.au/index.php?main_page=product_info&cPath=148_152_154_252&products_id=2229	0.20	0.12	
	Any other 5mm LED (20ma) LED will work, but these are diffused and easier to see night and day.						
7 Segment display	Element14	SC56-11SRWA	Any common cathode Red 7 segment display will do	https://au.element14.com/kingbright/sc56-11srwa/display-seven-segment-19-05mm/dp/1142442	2.13	2.13	
Resistors	NOTE: Hole spacing on the PCB for the resistors is 10mm, so only use 1/4w resistors as these have a 6.8 mm b						
	Also use the brown coloured carbon film 5% resistors not the blue/green 2% as its easier to see the colours against the brown background						
R1	1M		can get these for a few cents each in bulk	https://www.altronics.com.au or https://au.element14.com	0.06	0.03	
R2	2.2K				0.06	0.03	
R3	100K				0.06	0.03	

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R4 and R5	10K	Need 2 of these per board			0.12	0.12	
Note	Recommend using ¼ carbon film as it is easier to see the difference in the colour bands than on the metal film						
Resistor Networks	Element14	4608X-102-102LF	1K, 4 separate isolated resistors - Need 2 of these	https://au.element14.com/bourns/4608x-102-102lf/resistor-network-1k/dp/9356517?CMP=i-55c5-00001622	1.38	0.46	
IC's	Element14	CD4026BE		https://au.element14.com/texas-instruments/cd4026be/ic-buffer-driver-receiver/dp/3119752?CMP=i-55c5-00001622	0.99	0.65	
	Element 14	CD4093BE		https://au.element14.com/texas-instruments/cd4093be/ic-4000-cmos-4093-dip14-18v/dp/3120154?CMP=i-55c5-00001622	\$1.20	\$0.94	
IC sockets	Element 14	SPC15496	14 pin IC Socket	https://au.element14.com/multicomp/spc15496/dip-socket-14-position-through/dp/1183573	\$0.27	\$0.27	
	Element 14	SPC15498	16 Pin IC socket	https://au.element14.com/multicomp/spc15498/dip-socket-16-position-through/dp/1183574	\$0.40	\$0.40	
Switches	Digikey	B3F-4000	need 2 of these	https://www.digikey.com.au/en/products/detail/omron-electronics-inc-emc-div/B3F-4000/63961	\$1.58	\$1.26	
Capacitors	Element 14	MCFYU6104Z6	Ceramic 0.1uf 50V - Need 3 of these per board	https://au.element14.com/multicomp/mcfyu6104z6/cap-0-1-f-50v-y5v/dp/9411887?CMP=i-55c5-00001622	1.14	\$0.42	
	Element 14	50YXJ1M5X11	Electrolytic 1uf 50V	https://au.element14.com/rubycon/50yxj1m5x11/cap-1-f-50v-20/dp/2346264?CMP=i-55c5-00001622			
Transistor	Element14	BC557		https://au.element14.com/multicomp/bc557b/transistor-pnp-45v-100ma-to-92/dp/1574384?CMP=i-55c5-00001622	0.26	0.15	
Potentiometer 1M, single turn finger adjust	Element 14	3386F-1-105TLF	Not recommended as they cost \$3.52 each or \$2.45 per 100	https://au.element14.com/bourns/3386f-1-105tlf/trimmer-1m/dp/9354603			

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Better option	Aliexpress	3386F-1-105TLF		https://www.aliexpress.com/item/32783054938.html?spm=a2g0o.9042311.0.0.27424c4dc3sTRo	\$0.23	\$0.23	
Kapton Tape	Ebay	40mm wide - about \$16 a roll	1 roll will do about 500 kits		\$0.03	\$0.03	
Board	JLPCB				\$2.00	\$1.20	
Mylar bags	eBay			https://www.ebay.com.au/itm/100-x-Silver-Clear-Tough-Mylar-Stand-up-Bags-Zip-Lock-Reseal-Ziplock-Bag-13x18cm/222619551314	\$0.18	\$0.18	
Battery	eBay	30 Pack	Cheapest I could find	https://www.ebay.com.au/itm/262632889208?epid=1708133431&hash=item3d2623db78:g:7asAAOSw2gxY0inz	\$1.27	\$1.27	
				Total - Cheapest prices	\$14.75	\$10.91	