

Firebug parts list Jun 2023

Part	Supplier	Part no		URL	Cost per single kit	Qty \$100+	Notes	Original manufacturer and part number
Battery Holder and alternatives								
AA PCB Mount battery holder	Altronics	S5027		https://www.altronics.com.au/p/s5027-2-x-aa-pcb-mount-flat-battery-holder/	\$1.10	\$0.80	12.5mm pin spacing	http://www.comf.com.tw/ProductDetail.asp?no=35 BH321-1P
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 = see tapes below							
	The holes for the PCB mount are slotted to accomodate different pin spacings from different manufacturers							
AA battery (2)	Coles	Need 2 of these per kit			\$1.10	\$1.10		
LEDS								
Candle Led - Warm white	Aliexpress	Get the Warm white Leds as the Yellow Led's are not bright enough and uses significantly more power	Need 4 of these per kit	https://www.aliexpress.com/item/1005003962563983.html?spm=a2g0o.order_detail.order_detail_item.3.36f0f19cKSqX70	\$0.58	\$0.28		
Orange led	Aliexpress	This will add an orange colour to the light to make it more realistic	Need 2 of these per kit	https://www.aliexpress.com/item/836406032.html?spm=a2g0o.order_detail.order_detail_item.3.16d9f19cSb1B2p	\$0.30	\$0.14		
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 body width.							
	Also use the brown coloured carbon film 5% resistors not the blue/green as its easier to see the colours against the brown background							
R1,3,4,5	10 ohm 1/4w 5% Carbon Film		Need 4 of these per kit	https://au.element14.com/multicomp/mcf-0-25w-10r/res-10r-5-250mw-axial-carbon-film/dp/9339035	\$0.32	\$0.24		
R2,4	100 ohm, 1/4w 2% Metal film		Need 2 of these per kit	https://au.element14.com/multicomp-pro/mp006880/res-100r-0-25w-axial-metal-film/dp/3650048?st=100r	\$0.20	\$0.14		
Note	10 ohm and 100 ohm resistor colours codes are very similar, so to reduce assembly errors, i recommend 2% metal film for the 100 ohm, (blue colour), and 5% Carbon film for the 10 ohm, so that the scouts can identify them faster.							
Solder	Altronics	Need about 1.3 g (30 cm) of 0.8mm solder per kit		https://www.altronics.com.au/p/t1100-0.8mm-200gm-roll-60-40-leaded-solder/	\$0.19	\$0.19		0.2
Switch 1	Aliexpress	1212-112DB	Includes freight	https://www.aliexpress.com/item/32753488309.html?spm=a2g0o.order_list.order_list_main.25.17501802CM0Aea	\$0.36	\$0.36		\$0.23
Tapes	Aliexpress	0.8mm for switch, 3M VHB 5608 - get the 10mm width	Includes freight	https://www.aliexpress.com/item/1005003711468021.html?spm=a2g0o.productlist.main.1.11ce58b2sQ3VdU&algo_pvid=7586b8b8-8dca-45c7-b2bf-9a7209a42381&algo_exp_id=7586b8b8-8dca-45c7-b2bf-9a7209a42381-0&pdp_npi=3%40dis%21AUD%216.58%213.09%21%21%21%21%40210219c216870770411922131d0777%2112000026895408661%21sea%21AU%214177334621&curPageLgUId=fQM7wFz1nzQF	\$0.03	\$0.03		\$0.05
	Aliexpress	2mm thick *10mm wide for the battery holder	Includes freight	https://www.aliexpress.com/item/1005001354937624.html?spm=a2g0o.order_list.order_list_main.40.3d3a1802Dw0LD3	\$0.03	\$0.01		\$0.04
Board	JLPCB				\$1.10	\$1.00		
Total - Cheapest prices					\$5.32	\$4.30		