










 ZALMOTEK	Product name	My first circuit
	Developed by	Zalmotek
	Part count	16
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Part number	Part name	Description	Technical information	Quantity	Spare	Unit	Part image
1	PCB	The PCB is the acronym for printed circuit board and it refers to the board base used to physically support and electrically connect the various components to each other. Therefore, a PCB allows signals and power to be routed between physical devices.	custom made	1	-	piece	
2	Pins	The pins are soldered on the PCB and they are used to electrically connect the electronic components.	female turned contacts straight mounting: THT contacts pitch: 2.54 mm	28	-	piece	
3	Battery holder	The battery holder is used to connect the battery to the circuit in order to power it using one AA battery. In the kit the battery holder is already soldered on the PCB.	size: AA, R6 batt.no:1 leads: for PCB 51mm	1	-	piece	
4	Resistor	The resistor "resists" the flow of current, meaning that it impedes the flow of current and imposes a voltage reduction. Mainly, its role is to protect other electronic components from excessive current.	1k	1	1	piece	
5			10k	1	1	piece	
6			100k	1	1	piece	
7	Linear potentiometer (variable resistor)	The potentiometer, also known as a variable resistor is used to mechanically adjust the resistance in a circuit. Similarly, it is often used to adjust sensitivity, balance, input, or output, especially in audio equipment and sensors such as motion detectors.	multiturn 50kΩ 500mW mounting: THT ±10% linear	1	1	piece	
8	Photoresistor	The photoresistor is a light sensitive resistor whose resistance decreases as the intensity of light it is exposed to increases.	100 mW 150÷300kΩ 560 nm m mounting:THAT 150VDC	1	1	piece	
9	Capacitor	The capacitor stores (and can then discharge) energy like a small rechargeable battery. The charge/discharge rate is extremely fast but can be limited by a series resistor, which enables the capacitor to be used as a timing component in many electronic circuits.	ceramic MLCC, monolithic 22pF 100V C0G ±5% mounting: THT	1	1	piece	
10	Inductor	The inductor is a coil that induces a magnetic field in itself or in a core as a result of current passing through the coil. It is also used to protect sensitive equipment from destructive voltage spikes.	axial mounting: THT 470uH 90mA 12.5Ω Ø2.8x5mm	1	1	piece	
11	Transistor	The transistor is a semiconductor that amplifies fluctuations in current or can be used to switch current on and off. Unlike the actual switch, in its "off" state the transistor still allows a very small amount of current flow.	NPN bipolar 80V 500mA 625mW TO92 mounting: THT	2	2	piece	
12			PNP bipolar 40V 200mA 625mW TO92 mounting: THT	1	1	piece	

13	LED	The LED or the light-emitting diode is a semiconductor device that emits visible light when an electric current passes through it. The colour output depends on the wavelength, and can be both monochromatic or RGB.	5mm convex 700nm 1.5V - max. 3V mounting: THT	2	2	piece	
14	Screwed spacer sleeve	The screwed spacer sleeve is used to mechanically connect components.	Int.thread: M3 15mm hexagonal brass	4	2	piece	
15	Screw	The screw is used to mechanically connect components.	M3x5 head: button slotted steel zinc	8	4	piece	
16	Plexiglass cover	The plexiglass cover protects the electronic components.	custom made	1	-	piece	