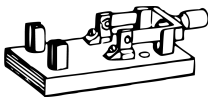
Super Breadboard 2
Bill of Materials



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Part	Value	Remarks	Qty	Reference	Provided
Standoffs	M3	nylon stands 8mm	**4**		
	M3	nylon nuts	**4**		
Pin header	1 x 3 pin	male vertical	**1**	J2	
	1 x 1 pin	male horizontal *(backside)*	**2**	J18, J19	
	2 x 2 pin	male horizontal *(backside)*	**1**	J1	
	2 x 5 pin	male horizontal *(backside)*	**1**	J3	
	2 x 10 pin	male vertical	**1**	J6	
Jumper	1 x 2 pin	jumper	**10**	J6	
	1 x 2 pin	jumper with pull-tab	**1**	J2	
Connector	USB-C	16 pin USB-C connector *(backside)*	**1**	J14	**A**
	1 x 2 pin	JST PH contact strip horizontal *(backside)* [2]	**1**	J13	
	15 cm	9 volt battery clip *(backside)*	**1**	J16, J17	
Socket	1 x 2 pin	female vertical bus	**3**	J9, J11, J12	
	1 x 4 pin	female vertical bus	**1**	J15	
	1 x 10 pin	female vertical bus	**2**	J7, J8	
	2 x 2 pin	female vertical bus	**1**	J10	
	2 x 2 pin	female horizontal bus *(backside)*	**1**	J4	
	2 x 5 pin	female horizontal bus *(backside)*	**1**	J5	

***A** means already assembled on the PCB.*

Notes:

1) Some provided resistor-values could differ slightly, as could their band colors, this has no effect on the working of the board.

2) This **power connector** (J13) can be used to attach the *Logic Probe* (available as a kit). The pins are marked with + and - at the backside of the PCB. The connector can be soldered at the left hand side or the right hand side, whatever is preferred.

Important:

- If a finished 8-bit Workbench is available; on a flat table, mount the standoffs and insert the unsoldered pin headers (J1, J3) into the female busses of the Workbench to have them perfectly aligned before soldering them.

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Part	Value	Remarks	Qty	Reference	Provided
Resistor [1]	330 Ω	1/4 W - orange, orange, black, black, brown	**1**	R1	
	5.1 kΩ	62.5 mW chip resistor SMD 0402 *(backside)*	**2**	R2, R3	**A**
Resistor Net	330 Ω	3x resistor, 6 legs	**1**	RN1	
Capacitor	100 nF	marked with '104'	**3**	C2, C4, C6	
	10 µF	elco radial	**3**	C1, C3, C5	
Transistor	BC547	Bipolar NPN	**1**	Q1	
IC	AMS1117-3.3V	800 mA 3.3V voltage regulator *(backside)*	**1**	U1	**A**
	AMS1117-5.0V	1A 5.0V voltage regulator *(backside)*	**1**	U2	**A**
Fuse	500 mA	PPTC resettable fuse SMD 1206 *(backside)*	**1**	F1	**A**
Switch	ON	Push Button	**1**	SW2	
	DPDT	Small slide Switch ON-ON	**1**	SW1	
LED [3]	red	3 mm, round [4]	**1**	D1	
	green	3 mm, round	**1**	D2	
	orange	5 mm, round	**1**	D3	
	spacer	8 mm for 3 mm LED [4]	**1**	D1	
Misc	400 pin	breadboard with adhesive, black	**1**	-	
		Parts	**52**	*(without assembled)*	
		Types	**29**	*(without assembled)*	

***A** means already assembled on the PCB.*

Notes:

3) When preferred, other LED colors can be used. Make sure to check if the values of the resistor R1 and resistor network RN1 are correct for the LEDs used (*see* Schematics).

4) Put the LED spacer between the legs of the red LED (D1) before soldering.

Important:

- Check the LED (D1-D3) polarity. The long leg is the anode (+) and the short leg the cathode (-). The short leg should go through the square pad and the long leg through the round pad.

- Before applying power, check J1-J5 for shorts between all side to side pins using a multimeter in continuity mode.