

## BOM Rotating LED Display

### Power Supply Board

item #	Abbrev.	pieces	description	Source	Part Number	link	price	remark
PLEASE UPDATE PRICES. THE BELOW IS NOT UP TO DATE. FURTHERMORE, LOW QUANTITY PRICES MIGHT BE HIGHER!!								
1	J1	1	CONN PWR JACK 2.1X5.5MM SOLDER	Digi-Key	EJ503A-ND	<a href="https://www.digikey.de/short/d4d54834">https://www.digikey.de/short/d4d54834</a>	€ 1.37	
2	U10	1	LM317	Digi-Key	2156-LM317LZ/T1-ND	<a href="https://www.digikey.de/short/3b2j84zr">https://www.digikey.de/short/3b2j84zr</a>	€ 0.23	
3	Q1	1	BC337	Digi-Key	BC33725TFRCT-ND	<a href="https://www.digikey.de/short/9hhf83c4">https://www.digikey.de/short/9hhf83c4</a>	€ 0.35	
4	Q2	1	BC337	Digi-Key	BC33725TFRCT-ND	<a href="https://www.digikey.de/short/9hhf83c4">https://www.digikey.de/short/9hhf83c4</a>	€ 0.35	
5	D1	1	1N4001	Digi-Key	1N4004-T	<a href="https://www.digikey.de/short/9qwp2b5q">https://www.digikey.de/short/9qwp2b5q</a>	€ 0.22	
6	D2	1	1N4001	Digi-Key	1N4004-T	<a href="https://www.digikey.de/short/9qwp2b5q">https://www.digikey.de/short/9qwp2b5q</a>	€ 0.22	
7	R1	1	resistor 4k7	generic			€ 0.10	
8	R2	1	resistor 100	generic			€ 0.10	
9	R3	1	resistor 270	generic			€ 0.10	
10	RV1	1	Potentiometer 1k linear	Digi-Key	P160KN-0QD15B1K	<a href="https://www.digikey.de/short/240nt5jz">https://www.digikey.de/short/240nt5jz</a>	€ 0.10	
11	C1	1	capacitor 100uF	Digi-Key	EEU-FM1E101	<a href="https://www.digikey.de/short/ndpimir8">https://www.digikey.de/short/ndpimir8</a>	€ 0.44	
12	C2	1	capacitor 33nF, MKP10, 630V	Reichelt	MKP10-630 33N	<a href="https://www.reichelt.de/mkp10-pp-puls-kondensator-33-nf-10-630-vdc-rm-15-mkp10-630-33n-p31975.html?&amp;nbc=1">https://www.reichelt.de/mkp10-pp-puls-kondensator-33-nf-10-630-vdc-rm-15-mkp10-630-33n-p31975.html?&amp;nbc=1</a>	€ 0.32	critical component! do NOT change type!!
13	C3	1	capacitor ceramic 100nF	generic				
14	C4	1	capacitor 100uF	Digi-Key	EEU-FM1E101	<a href="https://www.digikey.de/short/ndpimir8">https://www.digikey.de/short/ndpimir8</a>	€ 0.26	
15	C5	1	capacitor ceramic 100nF	generic			€ 0.44	
16	C6	1	capacitor ceramic 100nF	generic		<a href="https://www.reichelt.de/stehende-induktivitaet-09hvp-ferrit-330-h-l-09hvp-330-p255620.html?&amp;nbc=1">https://www.reichelt.de/stehende-induktivitaet-09hvp-ferrit-330-h-l-09hvp-330-p255620.html?&amp;nbc=1</a>	€ 0.87	
17	L1	1	Coil 330 uH	Reichelt	L-09HVP 330µ	<a href="https://www.amazon.de/UTOMAG-Multi-Use-Neodym-Magnete-Aufbewahrungs/dp/B08F7HNG45/ref=sr_1_5?keywords=neodym+magnete+6mm&amp;qid=1659078103&amp;sr=8-5">https://www.amazon.de/UTOMAG-Multi-Use-Neodym-Magnete-Aufbewahrungs/dp/B08F7HNG45/ref=sr_1_5?keywords=neodym+magnete+6mm&amp;qid=1659078103&amp;sr=8-5</a>	€ 3.50	
18	M1	1	CD motor with tray	Amazon, ebay	RF-300F-12350			
19	magnet	1	magnet, diameter 6mm, thickness 3 mm	Amazon	Multi-Use Neodym Magnete - 6 x 3 mm	<a href="https://shop.der-schraubenladen.de/schrauben/abstandsbolzen/1628/abstandsbolzen/distanzhalter-distinnen/innen-messing-vernickelt?number=SW11544.26&amp;c=435">https://shop.der-schraubenladen.de/schrauben/abstandsbolzen/1628/abstandsbolzen/distanzhalter-distinnen/innen-messing-vernickelt?number=SW11544.26&amp;c=435</a>	€ 0.18	
20	screw	2	M2x6 screw	generic				
21	M2 nuts	2	M2 nuts	generic				
22	bolt	4	bolt M3x20mm, female - female	Der Schraubenladen	Abstandsbolzen Messing vernickelt	<a href="https://shop.der-schraubenladen.de/schrauben/metrische-schrauben/schrauben-flachkopf/2144/iso-7380-2-linsenschraube-mit-flansch-innensechskant-edelstahl-a2?number=SW12060.28&amp;c=10">https://shop.der-schraubenladen.de/schrauben/metrische-schrauben/schrauben-flachkopf/2144/iso-7380-2-linsenschraube-mit-flansch-innensechskant-edelstahl-a2?number=SW12060.28&amp;c=10</a>	€ 0.40	
23	screw	7	screw flat head, M3x6	Der Schraubenladen	ISO 7380-2 Linsenschraube mit Flansch Innensechskant Edelstahl A2		€ 0.16	

24 bumper	bumper lens shape, diam. 6.4 mm,		Home Xpert 70 Stück Schutzpuffer CLEAR		
25 PCB	4 thickness 1.9 mm	Amazon	Linse	<a href="https://amzn.eu/d/7VAHGcK">https://amzn.eu/d/7VAHGcK</a>	€ 0.20
26 PCB	1 RD40_PS_V1	Aisler		<a href="https://aisler.net/p/ANGDVGXG">https://aisler.net/p/ANGDVGXG</a>	€ 19.16
	1 tray	Aisler		<a href="https://aisler.net/p/DSNBUGJX">https://aisler.net/p/DSNBUGJX</a>	€ 5.21
					<b>€ 34.28</b>

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### Display PCB

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1	A1	1	Arduino nano	AZ-Delivery	Nano V3.0 mit Atmega328 CH340	<a href="https://www.az-delivery.de/products/nano-v3-mit-ch340-arduino-kompatibel?variant=6127202074651">https://www.az-delivery.de/products/nano-v3-mit-ch340-arduino-kompatibel?variant=6127202074651</a>	€ 9.59	
2	U1	1	6 pin header	ebay		<a href="https://www.ebay.de/itm/173482533958?mkcid=16&amp;mkevt=1&amp;mkrid=707-127634-2357-0&amp;ssspo=GbE0SCLXSAq&amp;sssrc=2047675&amp;ssuid=lg42VTSER22&amp;widget_ver=artemis&amp;media=CO">https://www.ebay.de/itm/173482533958?mkcid=16&amp;mkevt=1&amp;mkrid=707-127634-2357-0&amp;ssspo=GbE0SCLXSAq&amp;sssrc=2047675&amp;ssuid=lg42VTSER22&amp;widget_ver=artemis&amp;media=CO</a>	€ 0.64	
3	U2	1	TPIC6C595	Digi-Key	TPIC6C595N	<a href="https://www.digikey.de/short/hhh2zfdw">https://www.digikey.de/short/hhh2zfdw</a>	€ 1.41	
4	U3	1	TPIC6C595	Digi-Key	TPIC6C595N	<a href="https://www.digikey.de/short/hhh2zfdw">https://www.digikey.de/short/hhh2zfdw</a>	€ 1.41	
5	U4	1	TPIC6C595	Digi-Key	TPIC6C595N	<a href="https://www.digikey.de/short/hhh2zfdw">https://www.digikey.de/short/hhh2zfdw</a>	€ 1.41	
6	U5	1	TPIC6C595	Digi-Key	TPIC6C595N	<a href="https://www.digikey.de/short/hhh2zfdw">https://www.digikey.de/short/hhh2zfdw</a>	€ 1.41	
7	U6	1	TPIC6C595	Digi-Key	TPIC6C595N	<a href="https://www.digikey.de/short/hhh2zfdw">https://www.digikey.de/short/hhh2zfdw</a>	€ 1.41	
8	U7	1	A3144	Amazon	VILLCASE Hall Sensor 25 teile/los A3144	<a href="https://amzn.eu/d/g7eitce">https://amzn.eu/d/g7eitce</a>	€ 0.50	
9	U8	1	AMS1117 3.3 SOT223	generic		<a href="https://amzn.eu/d/72tnrVr">https://amzn.eu/d/72tnrVr</a>	€ 0.50	
10	U9	1	ESP8266-01s	AZ-Delivery	ESP8266 ESP-01S	<a href="https://www.az-delivery.de/products/esp8266-01">https://www.az-delivery.de/products/esp8266-01</a>	€ 2.95	
11	D1-D40	40	LED white, 2x3mm	LED1.de	LED rechteckig 3x2 weiß diffus 1.800mcd WEHCW02-D1M	<a href="https://www.led1.de/shop/led-rechteckig-3x2-weiss-diffus-1800mcd-wehcw02-d1m.html">https://www.led1.de/shop/led-rechteckig-3x2-weiss-diffus-1800mcd-wehcw02-d1m.html</a>	€ 12.80	
12	D41	1	1N5818	Reichelt	1N 5818	<a href="https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1">https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1</a>	€ 0.05	
13	D42	1	1N5818	Reichelt	1N 5818	<a href="https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1">https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1</a>	€ 0.05	
14	D43	1	1N5818	Reichelt	1N 5818	<a href="https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1">https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1</a>	€ 0.05	
15	D44	1	1N5818	Reichelt	1N 5818	<a href="https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1">https://www.reichelt.de/schottkydiode-30-v-1-a-do-41-1n-5818-p41849.html?&amp;nbcb=1</a>	€ 0.05	
16	RN1	1	resistor network 9x120	Digi-Key	4610X-101-121LF	<a href="https://www.digikey.de/short/vt12t2fc">https://www.digikey.de/short/vt12t2fc</a>	€ 0.40	
17	RN2	1	resistor network 9x120	Digi-Key	4610X-101-121LF	<a href="https://www.digikey.de/short/vt12t2fc">https://www.digikey.de/short/vt12t2fc</a>	€ 0.40	
18	RN3	1	resistor network 9x120	Digi-Key	4610X-101-121LF	<a href="https://www.digikey.de/short/vt12t2fc">https://www.digikey.de/short/vt12t2fc</a>	€ 0.40	
19	RN4	1	resistor network 9x120	Digi-Key	4610X-101-121LF	<a href="https://www.digikey.de/short/vt12t2fc">https://www.digikey.de/short/vt12t2fc</a>	€ 0.40	
20	RN5	1	resistor network 9x120	Digi-Key	4610X-101-121LF	<a href="https://www.digikey.de/short/vt12t2fc">https://www.digikey.de/short/vt12t2fc</a>	€ 0.40	
21	RN6	1	Resistor network 4x10k	Digi-Key	4605M-101-103LF	<a href="https://www.digikey.de/short/839dp8pc">https://www.digikey.de/short/839dp8pc</a>	€ 0.59	

22 R1	1 resistor 470	generic			€ 0.10
23 R2	1 resistor 20k	generic			€ 0.10
24 C1	1 capacitor 220uF	Digi-Key	EEU-FR1C221B	<a href="https://www.digikey.de/short/3m4wnrd0">https://www.digikey.de/short/3m4wnrd0</a>	€ 0.35
25 C2	1 capacitor 220uF	Digi-Key	EEU-FR1C221B	<a href="https://www.digikey.de/short/3m4wnrd0">https://www.digikey.de/short/3m4wnrd0</a>	€ 0.35
26 C3	1 capacitor 100uF	Digi-Key	EEU-FM1E101	<a href="https://www.digikey.de/short/ndpjmjr8">https://www.digikey.de/short/ndpjmjr8</a>	€ 0.35
27 C4	1 capacitor 100uF	Digi-Key	EEU-FM1E101	<a href="https://www.digikey.de/short/ndpjmjr8">https://www.digikey.de/short/ndpjmjr8</a>	€ 0.35
28 C5	1 capacitor ceramic 100nF	generic			€ 0.15
29 pins	1 3 pins 2.54mm	Reichelt	MPE 087-1-003	<a href="https://www.reichelt.de/stiftleisten-2-54-mm-1x03-gerade-mpe-087-1-003-p119880.html?&amp;trstct=pos_19&amp;nbcs=1">https://www.reichelt.de/stiftleisten-2-54-mm-1x03-gerade-mpe-087-1-003-p119880.html?&amp;trstct=pos_19&amp;nbcs=1</a>	€ 0.08
30 jumper	1 jumper	Reichelt	JUMPER 2,54 SW	<a href="https://www.reichelt.de/kurzschlussbruecke-schwarz-rm-2-54-jumper-2-54-sw-p9017.html?&amp;trstct=pos_0&amp;nbcs=1">https://www.reichelt.de/kurzschlussbruecke-schwarz-rm-2-54-jumper-2-54-sw-p9017.html?&amp;trstct=pos_0&amp;nbcs=1</a>	€ 0.03
31 pins	1 4 pins 2.54mm	Reichelt	MPE 087-1-004	<a href="https://www.reichelt.de/stiftleisten-2-54-mm-1x04-gerade-mpe-087-1-004-p119881.html?&amp;trstct=pos_37&amp;nbcs=1">https://www.reichelt.de/stiftleisten-2-54-mm-1x04-gerade-mpe-087-1-004-p119881.html?&amp;trstct=pos_37&amp;nbcs=1</a>	€ 0.11
32 SW1	1 Omron tactile switch	Digi-Key	B3F-1020	<a href="https://www.digikey.de/short/j00ncztz">https://www.digikey.de/short/j00ncztz</a>	€ 0.38
33 screw	2 M2x6	generic	stainless steel, M2x6		€ 0.16 <b>Material must be stainless steel (non-magnetic!)</b>
34 nut	4 M2 nut	generic	M3 nut, stainless steel		€ 0.40 <b>Material must be stainless steel (non-magnetic!)</b>
35 PCB	1 HiRes POV nano V8	Aisler		<a href="https://aisler.net/p/XYLFJKMG">https://aisler.net/p/XYLFJKMG</a>	€ 9.58
36 PCB	1 Sek_Coil V2	Aisler		<a href="https://aisler.net/p/QNEXBQDJ">https://aisler.net/p/QNEXBQDJ</a>	€ 7.18
					<b>€ 56.49</b>