Grubworks PCB v1.1 · parts list

In the order they go in. Tick each one as you solder it. Guide: messopedals.com/diy/onion-madder/pcb/grubworks-v1-1/

	Qty	Value	Part	Spot it	On the board
☐	2	**1M**	resistor	brown, black, green	R1, R11
☐	1	**470K**	resistor	yellow, violet, yellow	R2
☐	1	**220K**	resistor	red, red, yellow	R3
☐	6	**100K**	resistor	brown, black, yellow	R4, R8, R9, R12, R14, R15
☐	1	**47K**	resistor	yellow, violet, orange	R5
☐	1	**22K**	resistor	red, red, orange	R6
☐	3	**10K**	resistor	brown, black, orange	R7, R22, R23
☐	1	**2.2K**	resistor	red, red, red	R25
☐	9	**1K**	resistor	brown, black, red	R10, R13, R16, R18, R20, R21, R24, R26, R27
☐	2	**100 ohm**	resistor	brown, black, brown	R17, R19
☐	1	**1N5817**	diode	band to K square pad	D1
☐	1	**2.2 nF**	ceramic cap	printed 222	C7
☐	3	**10 nF**	ceramic cap	printed 103	C9, C12, C17
☐	7	**100 nF**	ceramic cap	printed 104	C1, C6, C11, C15, C16, C18, C20
☐	1	**100 nF**	film cap	box, printed 104	C3
☐	1	**CD4024**	chip, 14-pin	notch to square pad	U1
☐	1	**TL072**	chip, 8-pin	notch to square pad	U2
☐	4	**NE555**	chip, 8-pin	notch to square pad	U3, U4, U5, U6
☐	5	**10 µF**	electrolytic	long leg to + square pad	C2, C4, C5, C8, C19
☐	4	**100 µF**	electrolytic	long leg to + square pad	C10, C13, C14, C21
☐	1	**LED**	LED	short leg to square pad	LED1
☐	1	**LDR**	photocell	either way around	LDR2

Off the board

☐	1	DC jack and a 9V supply, center negative. The Opto Duet wants 6V and up, or its LED stops flashing
☐	1	SPST toggle for power, between the DC jack's + lug and SW
☐	2	B100K pots, GAIN and VOLUME, on wires to their headers
☐	2	100K pots, HUM TEMPO and HUM PITCH, on wires to their headers
☐	2	B500K pots, CHEW TEMPO and CHEW WIDTH, on wires to their headers
☐	2	SPST toggles, hum on and chew on
☐	7	SPST toggles, one per octave
☐	1	SPST toggle for TRACK
☐	2	3.5 mm jacks: the output, and EXT IN, which must be a switched jack, one with a third lug that touches the tip with nothing plugged in
☐	1	LED for power, on J8
☐	1	LED for hum, on HUM LED
☐		Hookup wire for the headers
☐		The Grubworks PCB