

## Music4xxx PCB BOM

Quantity	Designation	Designator	Notes
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### Resistors

1	1K	R5	Standard 1% metal film through hole resistors
2	10K	R2, R14	
10	47K	R3, R4, R6, R7, R8, R9, R10, R11, R12, R13	

### Capacitors

2	22pF	C13, C14	Ceramic: 2.5mm lead pitch
11	0.1uF	C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12	Ceramic: 2.5mm lead pitch for decoupling
1	47uF	C1	Electrolytic 2.5mm lead pitch

### Diodes

1	1N4148	D1	DO35
1	PWR	D2	3mm LED

### Integrated Circuits

1	6N137	IC1	Optocoupler
1	ATmega328P-PU	IC11	Microcontroller
1	74HC164	IC2	Shift Register
8	74HC595	IC3, IC4, IC5, IC6, IC7, IC8, IC9, IC10	Shift Register

### IC Sockets

1	8 Way	7.62mm wide
1	14 Way	7.62mm wide
8	16 Way	7.62mm wide

### Sockets/headers

1	MIDI DIN socket	J7	PCB mount 5 way din socket, 180°
1	¼" jack socket	J3	Like Neutrik-NMJ6HF-S for foot switch
1	ICSP	P1	2x3 0.1" pin header for programming
1	20pin IDC socket	J2	2x10way 0.1" for userport cable

### Misc

1	16Mhs	Y1	Crystal HC49 Through hole
1	Pushbutton	SW1	7mm right-angle tactile switch
1	20way IDC cable	n/a	Connect to Beeb's user port. Allow 60cm.
2	20 way IDC plugs	n/a	For userport connection

For programming the microcontroller you will need an ICSP like Adafruit's [USBtinyISP](#) or similar programmer compatible with Arduino