

PMon OLED rev C – BOM

Quantity	Value	Type	Package	Part Numbers	Source	Source Part #	Comments
1	0.025 ohm 1%	Kelvin resistor		R6	Digikey	FC4L64R025FERCT-ND	Ohmite FC4L64R025FER
1	3.3K 1% 1/10W	Resistor	0603	R9	Digikey	P3.30KHCT-ND	Generic part
1	8.2K 1% 1/10W	Resistor	0603	R8	Digikey	P8.20KHCT-ND	Generic part
4	3.3K 5% 1/10W	Resistor	0603	R1, R2, R3, R11	Digikey	311-3.3KGRCT-ND	Can merge part number with the 3.3K 1% above.
3	10k 5% 1/10W	Resistor	0603	R4, R5, R10	Digikey	311-10KGRCT-ND	Generic part
1	1K, 12 turns, side adjustment	Trim pot		R7	Digikey	3224J-102ECT-ND	Bourns 3224J-1-102E
2	20pF 50V 5%	Ceramic capacitor	0603	C11, C12	Digikey	311-1424-1-ND	Generic part
6	0.1uF 10% 25V	Ceramic capacitor	0603	C4, C5, C6, C7, C9, C10	Digikey	311-1344-1-ND	Generic part. May need to reduce C7 if interferes with ICSP reset (e.g. to 0.01)
1	1uF 16V 5%	Ceramic capacitor	6030	C1	Digikey	445-1604-1-ND	Generic part
3	10uF 10% 16V	Tantalum Capacitor	1206	C2, C3, C8	Digikey	399-3684-1-ND	Generic part
1	1.3" SPI 128X64 OLED monochrome display	OLED		OLED	eBay (e.g. seller tianlo_go)	http://r.ebay.com/bVQ2CY	Should have the SH1106 or SD1306 controller, 6 pins for GND, VCC, SCL, SDA, RST, D/C and should like this http://i.imgur.com/y3cWazS.jpg . Manufacturer is http://www.heltec.cn .
1	16Mhz	Crystal		Q1	Digikey	CTX732CT-ND	CTS 403 Series, 20pF.
1	ATMEGA328P	IC	TQFP32	U4	Digikey	ATMEGA328P-AURCT-ND	Atmel AVR328P
1	FT232RL	IC	SSOP28	U2	Digikey	768-1007-1-ND	
1	LTC2943	IC	DFN8	U1	Digikey	LTC2943CDD#PBF-ND	
1	LT1764AEQ	LDO	TO263	U3	Digikey	LT1764AEQ#TRPBFCT-ND	Adjustable voltage regulator.
1	Push button	Button		S1	Digikey	P12197S-ND	Panasonic EVQ-PAG09K
1	3 positions, 0.1", straight	Header		J4	Digikey	S1011E-36-ND	Generic part. Height above board should be at most 8.5mm. The part number here is for a 36 position breakable strip so it can be used for multiple boards.
2	1 position, 0.1", straight	Header		OLED mechanical support.	Digikey	S1011E-36-ND	Generic part. Height above board should be at most 8.5mm. The part number here is for a 36 position breakable strip so it can be used for multiple boards.
1	RC Hitech/JR servo 3 positions male connector + 2 pins	Connector		Mates with J3	Generic	Generic	Any RC store or ebay. The top cover laser cut was design for JR/Hitech housings, not Futaba.
2	Micro USB 'reversed' connector	Connector		J1,J2	Digikey	H11611CT-ND	Hirose ZX62RD-AB-5P8. Make sure it is a 'reversed' connector, otherwise the signals will be in reversed order.
1	PCB	Custom PCB			Generic	Generic	Order the PCB from your favorite PCB manufacturer (2 layers, 60x60mm). Make sure to order a SMD stencil, preferably 5mil stainless steel but even a 5 mil stencil from oshstencils.com should work.
1	Top cover	Custom hardware			Ponoko	Custom	Laser cut fluorescent green 1/8" acrylic.
1	Bottom Cover	Custom hardware			Ponoko	Custom	Laser cut fluorescent green 1/8" acrylic.
4	M3x6mm, pan head, philips machine screw	Hardware			Digikey	335-1156-ND	Top cover screws
4	M3x10mm, pan head, philips machine screw	Hardware			Digikey	335-1148-ND	Bottom cover screws
4	M3x6mm, round, threaded, female/female metal standoff	Hardware			Digikey	952-1515-ND	Top cover standoff
4	M3x3mm, round, non threaded nylon or metal spacer	Hardware			Digikey	952-1526-ND	Bottom cover spacer