

Emotiglass Bill of Materials

Revision 1.2 20181016

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Electronic Components

Standalone Components

Quantity		Comment	Value		MFGR	MFGR PN	Digikey PN
1		Feather M0 BLE			Adafruit	2995	1528-1562-ND
28 pos		Feather Stack Connector			Mill-Max	311-93-164-41-001000	ED1064-ND
2		LCD Shutter			Adafruit	3627	1528-2516-ND
1		Pulse Sensor			Pulsesensor.com	Pulsesensor	1568-1247-ND
1		Pulse Sensor Connector			Harwin	M20-1060300	952-2228-ND
1		Lipo Battery	350mAh		Adafruit	2750	1528-1858-ND
1		JST-PH male connector			JST	455-1704-ND	B2B-PH-K-S(LF)(SN)

Right Side PCB Assembly

Quantity	Designator	Comment	Value	Asm type	MFGR	MFGR PN	Digikey PN
1		Right Side PCB (unpopulated)					
1	F30	Fuse	375ma	SMD	AVX Corporation	F0603E0R37FSTR	478-2859-1-ND
1	S1	SW-SPDT	CSS-1210MC	TH	copal	CSS-1210MC	563-1090-ND
1	P13	Header 3		TH		M20-7890346	1528-1782-ND
28 pos	U10	Feather M0 BLE Stack Connector		TH	Mill-Max	801-93-064-10-002000	ED10964-64-ND
0	P10, P11, P12, P14	Header - direct wire		dnp			

Right Front PCB Assembly

Quantity	Designator	Comment	Value	Asm type	MFGR	MFGR PN	Digikey PN
1		Right Front PCB (unpopulated)					
10	C20, C21, C22, C23, C24, C25, C26, C27, C28, C29	C	1u	SMD	Murata	GRT188R61E105KE13D	490-12321-1-ND
1	R20	R	10k	SMD	Panasonic	ERJ-3EKF1002V	P10.0KHTR-ND
1	Q20	ALS PT-19	ALS PT-19	SMD	Everlight	ALS-PT19-315C/L177/TR8	1080-1244-1-ND
1	DS20	EA DOGM128E-6 (No Backlight)	EA DOGM128E-6	TH	EA	EA DOGM128E-6	1481-1065-ND
0	P20,P21	Header - direct wire		dnp			

Left Front PCB Assembly

Quantity	Designator	Comment	Value	Asm type	MFGR	MFGR PN	Digikey PN
1		Left Front PCB (unpopulated)					
10	C30, C31, C32, C33, C34, C35, C36, C37, C38, C39	C	1u	SMD	Murata	GRT188R61E105KE13D	490-12321-1-ND
1	DS30	EA DOGM128E-6 (No Backlight)	EA DOGM128E-6	TH	EA	EA DOGM128E-6	1481-1065-ND
0	P30	Header - direct wire		dnp			

Right Side Dev PCB Assembly

Quantity	Designator	Comment	Value	Asm type	MFGR	MFGR PN	Digikey PN
1		Right Side Dev PCB (unpopulated)					
1	C1	C	.01u	SMD	Murata	GRM188R71H103KA01D	490-1512-1-ND
5	C5, C6, C7, C8, C9	C	.1u	SMD	Murata	GRM188R71H104KA93D	490-1519-1-ND
1	R1	R	22k	SMD	Panasonic	ERJ-3EKF2202V	P22.0KHCT-ND
2	R3, R4	R	10k	SMD	Panasonic	ERJ-3EKF1002V	P10.0KHCT-ND
1	R2	RPot	100k	SMD	Copal	ST4ETB104	ST4ETB104CT-ND
2	U1, U3	MAX392	MAX392	SMD	Maxim	MAX392CSE+	MAX392CSE+-ND
2	U2, U4	MCP4725A0T-E/CH	MCP4725A1T-E/CH	SMD	Microchip	MCP4725A1T-E/CH	MCP4725A1T-E/CHCT-ND
1	U5	CD40106BM	CD40106BM	SMD	Texas Instruments	CD40106BM96	296-14081-1-ND
28 pos	U6	Feather M0 BLE Stack Connector			Mill-Max	350-10-164-00-001000	ED3864-64-ND

Mechanical Components

Quantity	Part	Mcmaster Part #	Substitute Option
10	Screw, 2-56x1/4"	91772A077	M2x6
2	Screw, 2-56x7/8"	91772A085	M2x22
2 pieces	Polycarbonate film, .01"	85585K103	

3D Printed Parts

Quantity	Part
1	Frame
1	Left Side
1	Right Side
1	Key
6	Spacer

Supplies

Quantity	Supply	Details
	Wire, 30 awg wire wrap	Red, black, and one other color
	Heatshrink tubing	1/16" and 1/4"
	Kapton Tape	1/4"

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