

## BILL OF MATERIALS – SCHEMATIC COMPONENTS

Identifier(s)	Value	Quantity	Supplier	Part Name	Supplier P/N
<b>R1</b>	680 Ohms	1	Digikey	RES SMD 680 OHM 5% 1/4W 1206	311-680ERCT-ND
<b>R2, R3, R6</b>	10K Ohms	3	Digikey	RES SMD 10K OHM 1% 1/4W 1206	311-10.0KFRCT-ND
<b>R4</b>	33 Ohms	1	Digikey	RES SMD 33 OHM 5% 1/4W 1206	311-33ERCT-ND
<b>R5, R7</b>	330 Ohms	2	Digikey	RES SMD 330 OHM 1% 1/4W 1206	311-330FRCT-ND
<b>C1, C6, C7, C8</b>	0.1 uF	4	Digikey	CAP CER 0.1UF 50V X7R 1206	311-1179-1-ND
<b>C2, C3</b>	20 pF	2	Digikey	CAP CER 20PF 50V C0G/NPO 1206	311-1153-1-ND
<b>C4</b>	470 pF	1	Digikey	CAP CER 470PF 50V X7R 1206	1276-2778-1-ND
<b>C5</b>	10uF	1	Digikey	CAP TANT 10UF 10V 10% 1206	478-1654-1-ND
<b>Y1</b>	8MHz	1	Digikey	CRYSTAL 8.0000MHZ 16PF SMD	XC1312CT-ND
<b>J1</b>	-	1	Adafruit	JST-PH 2-Pin SMT Right Angle Connector	1769
<b>J2</b>	-	1	Digikey	CONN HEADER .100" SNGL STR 6POS	S1012EC-06-ND
<b>J3</b>	-	1	Digikey	DIL VERTICAL PC TAIL PIN HEADER	952-2121-ND
<b>J4</b>	-	1	Digikey	CONN USB MICRO B RECPT SMT R/A	609-4618-1-ND
<b>J5</b>	-	1	Adafruit	1.8" SPI TFT display, 160x128 18-bit color - ST7735R driver	618
<b>U2</b>	-	1	Digikey	IC MCU 8BIT 32KB FLASH 28DIP	ATMEGA328P-PN-ND
<b>U3</b>	-	1	Digikey	IC CONTROLLER LI-ION 4.2V SOT23-5	MCP73831T-2ACI/OTCT-ND
<b>U4</b>	-	1	Digikey	IC REG LINEAR 3.3V 500MA SOT23-5	576-1281-1-ND
<b>JP1, JP2</b>	-	1	Digikey	RES SMD 0 OHM JUMPER 1/4W 1206	311-0.0ERCT-ND
<b>D1</b>	-	1	Digikey	LED RED CLEAR 2SMD R/A	1516-1076-1-ND
<b>D2</b>	-	1	Digikey	DIODE SCHOTTKY 40V 3A SMA	B340A-FDICT-ND
<b>D3</b>	-	1	Digikey	LED RED DIFFUSED 1206 SMD	L62301CT-ND
<b>D4</b>	-	1	Digikey	LED YELLOW CLEAR 2SMD R/A	1516-1077-1-ND
<b>SW1</b>	-	1	Digikey	SWITCH SLIDE SPDT 200MA 30V	A107673-ND

## BILL OF MATERIALS – ADDITIONAL COMPONENTS

Name	Qty	Supplier	Supplier P/N
Case Bottom - 3D Print	1	In-house	N/A
Case Top - 3D Print	1	In-house	N/A
Button Directional - 3D Print	4	In-house	N/A
Button Nondirectional - 3D Print	2	In-house	N/A
Screen Carrier - 3D Print	1	In-house	N/A
Brass Screw-to-Expand Inserts for Plastics, M3 x 0.5 mm Thread Size	4 (Pack of 50)	McMaster-Carr	94510A030
Black-Oxide Alloy Steel Socket Head Screw, M3 x 0.5 mm Thread, 16 mm Long	4 (Pack of 100)	McMaster-Carr	91290A120
Clear Acrylic Sheet, 12" x 12" x 1/8"	1	McMaster-Carr	8589K41
Kapton® Polyimide Masking Tape	1	McMaster-Carr	7648A711
Light Duty Foam Tape - Adhesive on Both Sides	1	McMaster-Carr	7598A915
Gaffer's or other opaque tape	-	-	-