

Reference	Qty	Value	Description	Footprint	LOSC Part #	Mfr. Part #	Price unit/kte	Link
U8	1	MCP2210x-SS	USB to SPI Protocol Converter with GPIO, SSOP-20	Package_SO_SSOP-20_5.3x7.2mm_P0.65mm	MCP2210-I/SS-NE	MCP2210-I/SS	\$ 4.1500	https://www.digkey.ca/en/products/detail/microchip-technology/MCP2210-I/SS/2835087
U9	1	ATMEGA328PB-AU	IC MCU 8BIT 32KB FLASH 32TOPF	digipkey footprints/TQFP-32_7x7mm	C132230	ATMEGA328PB-AU	\$ 1.8787	https://www.lksc.com/product-detail/MICROCHIP_Microchip-Tech-ATMEGA328PB-AU_C132230.html
U10	1	encoder	SMD,18x19.5mm Rotary Encoders ROHS	footprint:K1-5301-UA-01	C128931	K1-5301-UA-01	\$ 1.2851	https://www.lksc.com/product-detail/Rotary-Encoders_Korean-Hiprats-Elec-K1-5301-UA-01_C128931.html
BT1	1	CR123A	Multiple-cell battery	footprint:BH-123A-B5BA003	C19184081	BH-123A-B5BA003	\$ 0.7972	https://www.lksc.com/product-detail/Button-And-Strip-span-style-background-color-R6-Battery-span-Connector_MYOUNG-BH-123A-B5BA003_C19184081.html
U2,U5,U4,U5,U6	5	KCSA02-136	One digit 7 segment red LED, common anode	footprint:GS2016AR-G	C22462635	GS2016AR-G	\$ 0.3520	https://www.lksc.com/product-detail/LED-Segment-Displays_Guangcai-Display-GS2016AR-G_C22462635.html
U7	1	USBA male	1.5A 1.4P Male -usb_A_F--usb_A_7 Type-A SMD USB Connectors ROHS	footprint:USBA-A-MALE-SMD	C397451	U216-041N-1WS2x-5	\$ 0.1363	https://www.lksc.com/product-detail/USB-Connectors_XNB-Connection-U216-041N-1WS2x-5_C397451.html
SW3	1	DPDT	Standing paste 1A DPDT 6V Black 10,000 times SMD Slide Switches ROHS	footprint:22D28-DPDT	C063205	MS-22D28-G200	\$ 0.1168	https://www.lksc.com/product-detail/Slide-Switches_G-Switch-MS-22D28-G200_C063205.html
J1	1	AVR-RSP-6	Atmel 6-pin ISP connector	footprint:HARWIN_M20-8760342	C780054	X65211WVS-2x03H-C60D74	\$ 0.0858	https://www.lksc.com/product-detail/Pin-Headers_XNB-Connection-X65211WVS-2x03H-C60D74_C780054.html
J2	1	SD_CARD_140-01-A	2mm Card Slot MicroSD card / (TF card) Self-bouncing SMD SD Card / Memory Card Connector ROHS	footprint:TF-SMD_TP-02	C2899258	TF-01A	\$ 0.0800	https://www.lksc.com/product-detail/SD-Card-Connectors_Yuand-TF-01A_C2899258.html
SW2	1	SW_SPST	Single Pole Single Throw (SPST) switch	footprint:MST-22D18G2-3J	C668586	MST-22D18G2-3J	\$ 0.0767	https://www.lksc.com/product-detail/Slide-Switches_SHOU-HAN-MST-22D18G2-3J_C668586.html
U1	1	TM1652	5 x 8 segment driver	Package_SO/SOIC-16_3.9x9.9mm_P1.27mm	C52186	TM1652	\$ 0.0763	https://www.lksc.com/product-detail/Digital-Tube-Drivers_TM-Shenzhen-Tian-Micro-Elec-TM1652_C52186.html
D1	1	350mV@100mA shottky diode	30V 1A 350mV@100mA SOD-123 Schottky Diodes ROHS	Diode_SMD_D_SOD-123	C017121	NRVB13071G	\$ 0.0417	https://www.lksc.com/product-detail/Schottky-Diodes_JSMSEM-NRVB13071G_C017121.html
SW4,SW5,SW6,SW7,SW8,SW9	6	SW_TACTILE	Without 50mA 100kΩ 100000 Times 12V 16x40 2mm 2mm Round Button Standing paste SPST SMD Tactil	footprint:TS-1088-AR02016	C120477	TS-1088-AR02016	\$ 0.0407	https://www.lksc.com/product-detail/Tactile-Switches_XUNPU-TS-1088-AR02016_C120477.html
F1	1	800mA	50A SMD Fuse 800mA 63V 1206 Disposable fuses ROHS	Fuse Fuse_1206_3214Metric	C163134	CFSI120V17R80	\$ 0.0350	https://www.lksc.com/product-detail/Disposable-fuses_TA-i-Tech-CFSI120V17R80_C163134.html
D2	1	3.3V-3.5V 500mW	3.3V-3.5V 500mW 3.3V SOD-123 Zener Diodes ROHS	Diode_SMD_D_SOD-123	C2891770	BZTX2C3V3	\$ 0.0110	https://www.lksc.com/product-detail/Zener-Diodes_YONGYUTAI-BZTX2C3V3_C2891770.html
C1	1	10uF	Unipolarized capacitor	Capacitor_SMD_C_0805_2013Metric	C1713	CL1A104K00NNNE	\$ 0.0079	https://www.lksc.com/product-detail/Multilayer-Ceramic-Capacitors-MLCC-SMD-SMT_Samsuno-Electro-Mechanics-CL1A104K00NNNE_C1713.html
Y1	1	Crystal	Two pin crystal	Capacitor_HC-49S-SMD-2P-Mini	C2983429	16M 25PF 19PPM	\$ 0.0057	https://www.lksc.com/product-detail/Crystals_SST-16M-25PF-19PPM_C2983429.html
C7,C8,C9,C10,C11,C12	6	2.2uF	SMD 0603 MLCC capacitor, Alternate KiCad Library	Capacitor_SMD_AKL_C_0603_1608Metric	C2239622	CGA0603XGR225K6R3JT	\$ 0.0052	https://www.lksc.com/product-detail/Multilayer-Ceramic-Capacitors-MLCC-SMD-SMT_HRE-CGA0603XGR225K6R3JT_C2239622.html
C2,C3	2	33pF	SMD 0603 MLCC capacitor, Alternate KiCad Library	Capacitor_SMD_AKL_C_0603_1608Metric	C363551	FN18N330J500PSG	\$ 0.0022	https://www.lksc.com/product-detail/Multilayer-Ceramic-Capacitors-MLCC-SMD-SMT_PSA-Prosperity-Dielectrics-FN18N330J500PSG_C363551.html
C15,C16	2	0.1uF	SMD 0603 MLCC capacitor, Alternate KiCad Library	Capacitor_SMD_AKL_C_0603_1608Metric	C382519	TC0603XGR104K000CT	\$ 0.0019	https://www.lksc.com/product-detail/Multilayer-Ceramic-Capacitors-MLCC-SMD-SMT_CTCO-TC0603XGR104K000CT_C382519.html
R18,R19,R20,R21,R22,R23,R24,R25,R26,R27,R28,R29,R30	13	4.99k	100mW Thick Film Resistors 75V A±10ppm/Δ/ 1/ 100mW 0603 Chip Resistor - Surface Mount ROHS	PCoM_Resistor_SMD_AKL_R_0603_1608Metric	C2933228	FRC0603F4991TS	\$ 0.0009	https://www.lksc.com/product-detail/Chip-Resistor-Surface-Mount_FOJAN-FRC0603F4991TS_C2933228.html
R12,R13,R16,R17	4	1K	SMD 0603 Chip Resistor, US Symbol, Alternate KiCad Library	Resistor_SMD_AKL_R_0603_1608Metric	C103209	RTT03102JTP	\$ 0.0008	https://www.lksc.com/product-detail/Chip-Resistor-Surface-Mount_RALEC-RTT03102JTP_C103209.html
R9,R10	2	0	SMD 0603 Chip Resistor, US Symbol, Alternate KiCad Library	Resistor_SMD_AKL_R_0603_1608Metric	C3017805	SCR0603JUR	\$ 0.0008	https://www.lksc.com/product-detail/Chip-Resistor-Surface-Mount_VO-SCR0603JUR_C3017805.html
R1,R2,R3,R4,R5,R6,R7,R8	8	71.5	100mW Thick Film Resistors 75V A±10ppm/Δ/ 1/ 100mW 0603 Chip Resistor - Surface Mount ROHS	Resistor_SMD_R_0603_1005Metric	C2933255	FRC0603F71R5TS	\$ 0.0008	https://www.lksc.com/product-detail/Chip-span-style-background-color-R6-Resistor-span-Surface-Mount_FOJAN-FRC0603F71R5TS_C2933255.html
R11,R38,R39,R40	4	10k	100mW Thick Film Resistors 75V A±10ppm/Δ/ 1/ 100mW 0603 Chip Resistor - Surface Mount ROHS	Resistor_SMD_AKL_R_0603_1608Metric	C2930027	FRC0603J103TS	\$ 0.0007	https://www.lksc.com/product-detail/Chip-Resistor-Surface-Mount_FOJAN-FRC0603J103TS_C2930027.html
Cost total :		8	10.99					