

Learning the Art of Electronics, 2nd Ed.					
Parts List, Microcontroller Lessons					
mru dea 2023-03-28					
Used in...	Description	Qty	Source	Part Number	Notes
All	Misc. resistors and capacitors				See schematics for values required
All	100nF capacitor, bypass	10	Digikey	EF2104-ND	or equivalent
All	10uF capacitor, tantalum, 35V, bypass	5	Digikey	478-9320-ND	or equivalent
All	Sparkfun SAMD21 Mini	1	Digikey	1568-1327-ND	SparkFun DEV-13664 . See Ch. 200 for alternatives.
All	2x5 SWD header	1	Digikey	609-3712-ND	SparkFun PRT-15362; Adafruit 2102 (discard socket)
All	0.1" breakaway headers (cut to 12 pins)	2	Digikey	S1011EC-24-ND	SparkFun PRT-00116; Adafruit 392
All	J-Link Mini Edu w/ USB cable & 10-pin cable	1	Digikey	899-1062-ND	
All	1N5817 Schottky Diode	1	Digikey	1N5817-TPCT-ND	
All	LED, HLMP4740, Green, 5mm, low current	1	Digikey	1080-1063-ND	
All	Pushbutton Switch, SPST, breadboard compatible	1	Digikey	SW263CT-ND	
23L on	Switch, Keypad, membrane, 4x4	1	Digikey	27899PAR-ND	SparkFun COM-16038
25L	TLC372 dual, single-supply comparator	1	Digikey	296-1845-5-ND	
25L on	Trimpot, 10K w/ knob	1	Digikey	1568-1616-ND	
25L on	LM386, Audio Amplifier	2	Digikey	296-43960-5-ND	
25L on	100uF capacitor, electrolytic, speaker coupling	1	Digikey	1189-1300-ND	or any equivalent 100uF or larger capacitor
22S	1N5711 small-signal Schottky diode	2	Digikey	2368-1N5711-ND	or any equivalent small-signal Schottky diode
25L	SG29R Micro servo	1	Digikey	1528-1076-ND	SG92R or equivalent - Adafruit 169
26L on	Sparkfun 16x2 LCD Display, RGB Backlight, SPI, Serial , I2C w/ headers installed	1	SparkFun	LCD-16396	Mouser 474-LCD-16396; Could use top two lines of 20x4 LCD-16398 as alternate
26L	MCP41010 SPI Digital Potentiometer, 10K	1	Digikey	MCP41010-I/P-ND	or MCP41010-E/P-ND
26L	Light Sensitive Resistor	1	Digikey	1528-2141-ND	Almost any LDR will work: 01-LDR2, GL5528, GL5537 all worked fine in this lab
26W	MXD1210 RAM, 32K, SPI interface	1	Digikey	MXD1210CPA+-ND	
26W	Amplified Electret Microphone	1	Adafruit	1063	Alternate: SparkFun BOB-12758 (Digikey 1568-1472-ND)
27L	Buzzer, piezoelectric, 5V	1	Digikey	2223-CEM-1205-IC-ND	Alternates: Adafruit 1536; Digikey 458-1064-ND; Digikey 458-1342-ND
27L	VN2222 N-Channel MOSFET	2	Digikey	VN2222LL-G-ND	or equivalent; 2N7000 Digikey 2N7000FS-ND is fine as well
27W	IR Receiver, TSOP38428	1	Digikey	TSOP38438-ND	Last two digits are center frequency - match to your remote control
27W	IR Remote Control w/ battery	1	See text		We did not test this one but Adafruit 389 (Digikey 1528-2540-ND) similar to one we used