

Bill of materials for Group 3, Voice Recognition
Source file: VoiceRecognitionGroup.sch
Last modified November 3rd 2018

PCB Version: 1.0

BOM Version: 1.0

P/DNP = Place/ Do not place component
 Comments: All components are SMD unless otherwise noted

Qty	Value	Parts	P/DNP	Mfg
1	PWR-BLU	LED1	P	Dialight
1	FUNC_GRN	LED2	P	Dialight
1	NOFUNC_RED	LED3	P	Dialight
1	WARN_YELL	LED4	P	Dialight
2	MIC_ON, RESET1	Buttons	P	Panasonic
3	100nF	C4, C6, C8, C12	P	Murata
2	10k	R4, R8	P	Welwyn
1	10uF	C5, C7	P	Murata
1	16MHz	Q1	P	NDK
2	18pF	C1, C2	P	Murata
4	1k	R3, R5, R6, R7	P	KOA Speer
1	1uF	C3	P	KEMET
2	22	R1, R2	P	Welwyn
1	5.5x2.1mm Barrel	J1	P	Adam Tech.
1	ATMEGA32U4-AU	U\$1	P	Microchip
1	USB-A	X1	P	CUI
1	DC Wall Wart	N/A	DNP	NLPOWER-CN
1	USB-A Cable 2 pack	N/a	DNP	DTOL
1	120 Pack cables	N/A	DNP	Elegoo
1	Misc Connectors EPL	N/A	DNP	EPL-PSU
1	MISC EPL Fees	N/A	DNP	EPL-PSU

Version Changes: Initial BOM

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Mfg Part #	Device Description	Distributor
597-6601-607F	1206 Blue LED	Mouser
599-0281-007F	1206 Green LED	Mouser
597-6001-607F	1206 Red LED	Mouser
597-6401-607F	1206 Yellow LED	Mouser
667-EVQ-Q2K01W	Tactile button 6mm square	Mouser
GRM31C5C2A104JA01L	100nF 100VDC 5% 1206 Capacitor	Mouser
WIN-T1206LF-03-1002-B	10k 1% 250mW 1206 resistor	Mouser
GCJ31CC71E106MA15L	10uF 25VDC 20% 1206 Capacitor	Mouser
NX3225SA-16.000000MHZ-T1	16MHz Surface Mount 10ppm	Mouser
GRM31A7U3D180JW31D	18pF 2kVDC 5% 1206 Capacitor	Mouser
RN73H2BTDD1001F100	1k 1% 250mW 1206 resistor	Mouser
C1206X105M3RACTU	1uF 25VDC 20% 1206 Capacitor	Mouser
WCR1206-22RFI	22 1% 250mW 1206 resistor	Mouser
Unknown	Barrel Jack Female 5.5mm jack, 2.1mm center pole diameter	Sparkfun
ATMEGA32U4-AU	ATMEGA32U4-AU	Mouser
UJ2-AH-1-SMT-TR	USB-A	Mouser
SFE-5V2AD	DC Wall wart 5.5mmx2.1mm 5v, 2A	Sparkfun
Unknown	USB-A Male to Male 4ft cable	Amazon
Unknown	MI to MI, Fm to MI, Fm to Fm Connectors	Amazon
Unknown	Miscellaneous Headers from EPL Store	EPL
Unknown	Reflow fees, soldering fees, etc.	EPL



Dist. Part #	Price per unit	Ext. Price
645-597-6601-607F	0.9	0.9
645-599-0281-007F	0.51	0.51
645-597-6001-607F	0.72	0.72
645-597-6401-607F	0.72	0.72
667-EVQ-Q2K01W	0.3	0.6
81-GRM31C5C2A104JA1L	0.71	2.13
66-WINT1206LF031002B	0.59	1.18
81-GCJ31CC71E106MA5L	0.94	0.94
344-NX3225SA16MHZT1	0.92	0.92
81-GRM31A7U3D180JW1D	0.74	1.48
660-RN73H2BT1001F100	0.44	1.76
80-C1206X105M3R	1.36	1.36
756-WCR1206-22RFI	0.1	0.2
PRT-12748	1.5	1.5
556-ATMEGA32U4-AU	4.12	4.12
490-UJ2-AH-1-SMT-TR	1.28	1.28
TOL-12889	5.95	5.95
link	4.1	4.1
link	6.98	6.98
	3	3
	10	10
Total Cost:		40.35



Notes

Actually 8.20 per 2 pk but only cost 4.1 per board
Only 1 bundled need for all 4 boards

