

Bill of Materials
Audio 11 Group | October 24, 2019

Distributor	Description	Units	Part number	Price/unit	Total	Purpose: X for Y
Digikey	Operational Amplifier	1	LMC6032IN/NOPB-ND	1.15	1.15	Signal Amplifier for JD1
Mouser	10k ohm resistor 1%	2	299-10K-RC	0.19	0.38	Signal Amplifier for JD1
Mouser	80k ohm resistor	2	LOB5R100FLFBLK	1.54	3.08	Signal Amplifier for JD1
Mouser	400k ohm resistor	1	CMF60400K00BHEK	0.59	0.59	Signal Amplifier for JD1
Mouser	390k ohm resistor	12	CCF07390KGKE36	0.1	1.2	Signal Amplifier for JD1
Digikey	10k ohm potentiometer 10%	1	3362P-1-103	1.02	1.02	For biased voltage on op amp
Mouser	HLMP LED	12	HLMP3750A	0.44	5.28	For audio visualizer
Jameco	1uF capacitor	1	Jameco 29831	0.25	0.25	For microphone
Mouser	2.2k ohm resistor 1%	1	273-2.2K-RC	0.26	0.26	For microphone
Mouser	Microphone	1	CMC-5042PF-AC	1.2	1.2	Microphone for input
Mouser	LED	12	HLMP-1700	0.49	5.88	Visual display
Arduino	Arduino Mega	1	7630049200067	38.5	38.5	Microcontroller for FFT calculation
Jameco	Protoboard	1	Jameco 105129	6.59	6.59	For final amplifier and LED circuit
Digikey	Solder	1 lb (sold by the pound)	24-6040-0018	49.2	49.2	For soldering components to protoboard
Circuit Specialist	Breadboard	1	LS-00018	5.99	5.99	For prototyping the system
Adafruit	Jumper wires male-to-male	40	758	3.95 for a bundle of 40	3.95	connections between protoboard and Arduino

Description	Link to datasheet
Operational Amplifier	http://www.ti.com/lit/ds/symlink/lmc6032.pdf
10k ohm resistor 1%	https://www.mouser.com/datasheet/2/351/xicon_100_42017_XC-600035-1-1201685.pdf
80k ohm resistor	https://www.mouser.com/datasheet/2/414/LOB-1528272.pdf
400k ohm resistor	https://www.mouser.com/datasheet/2/427/cmfind111261.pdf
390k ohm resistor	https://www.mouser.com/datasheet/2/427/ccf07239748.pdf
10k ohm potentiometer 10%	https://www.bourns.com/docs/ProductDatasheets/3362.pdf
HLMP LED	https://www.mouser.com/datasheet/2/143/HLMP3X50A_MV3X50_Fairchild_Everlight-1166169.pdf
1uF capacitor	https://www.jameco.com/Jameco/Products/ProdDS/2_9831.pdf

2.2k ohm resistor 1%	https://www.mouser.com/datasheet/2/351/Xicon_XC600046-1218702.pdf
Microphone	https://www.mouser.com/datasheet/2/670/cmc5042pf-ac-1310541.pdf
LED	https://www.mouser.com/datasheet/2/678/V02-1557EN_DS_HLMP-4700_2013-07-24-1483437.pdf
Arduino Mega	http://ww1.microchip.com/downloads/en/DeviceDoc/Atmel-2549-8-bit-AVRMicrocontroller-ATmega6401280-1281-25602561_datasheet.pdf

Protoboard	https://www.jameco.com/Jameco/Products/ProdDS/1_05129.pdf
Solder	https://www.kester.com/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntityId=1072&language=enUS&PortalId=0&TabId=96
Breadboard	no datasheet available
Jumper wires male-to-male	no datasheet available