

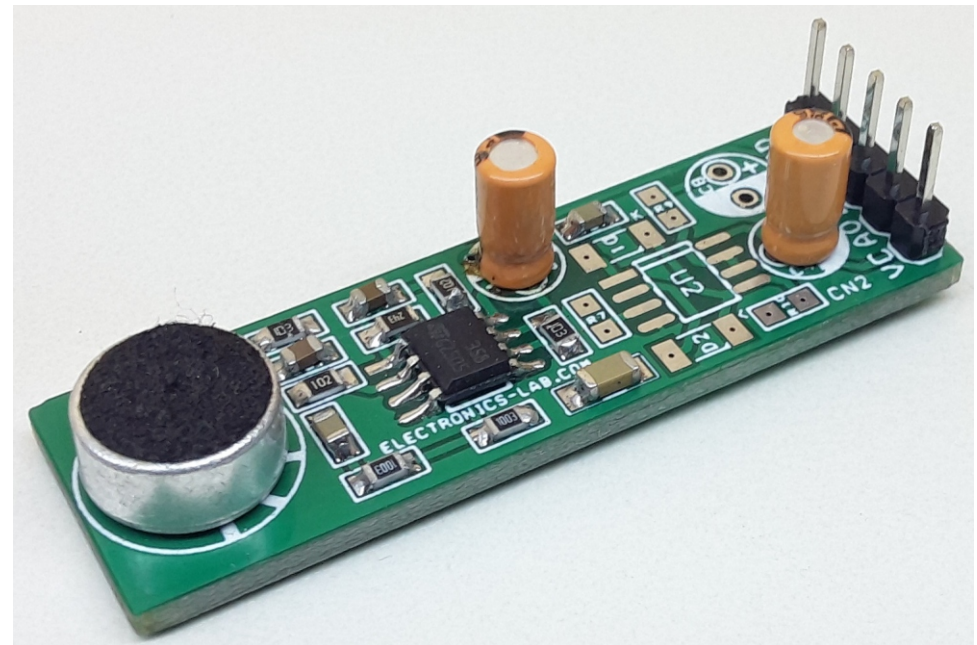
Microphone Pre-Amplifier- Sound Sensor

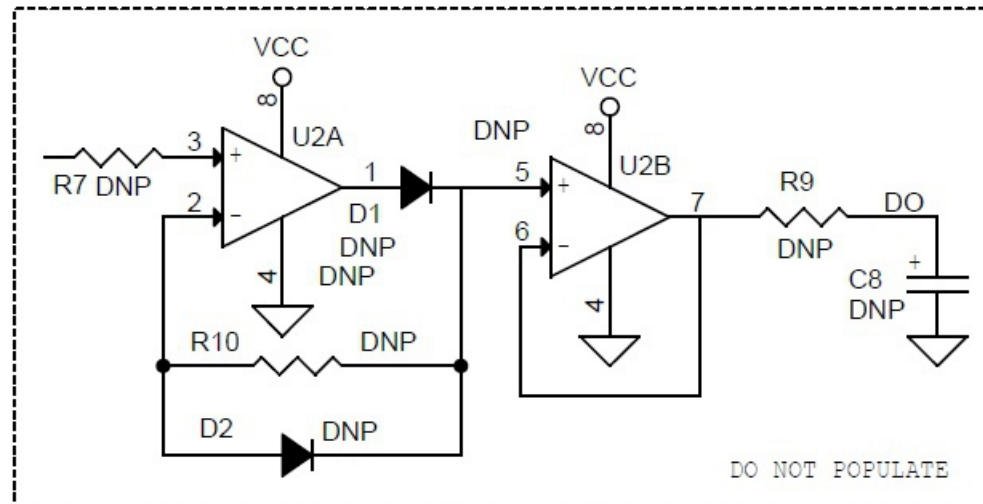
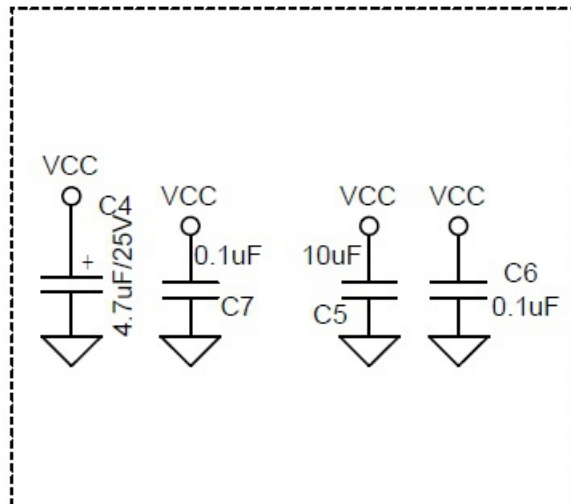
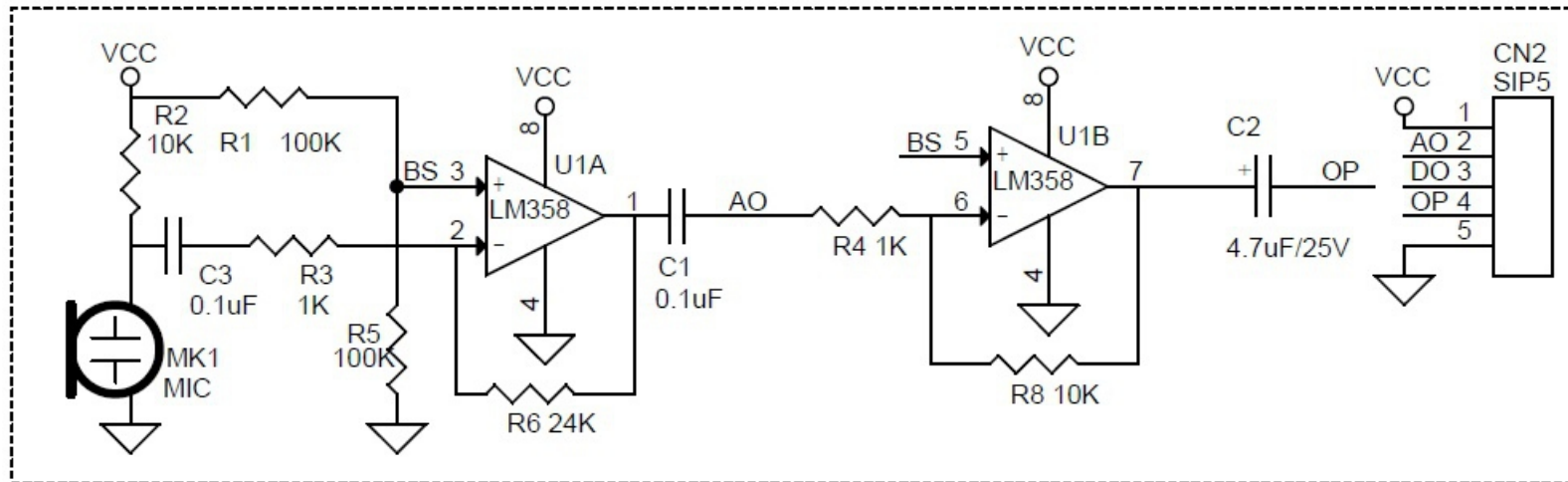
This is an easy to construct dual-stage microphone pre-amplifier. The project can be used as a sound sensor or microphone pre-amplifier. The 1st op-amp pre-amplify the very low-level signal coming from the condenser microphone and 2nd op-amp provides more boost to the audio signal. The pre-amplifier is an important building block for many audio communication systems and sound sensors. The circuit has been built around OPAMP LM358. The output signal level is dependent on the input sound level. The maximum peak to peak output is 2Vpp.

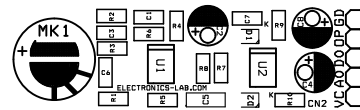
Connections: CN1 Pin1 = VCC, Pin 2 = Low level audio signal, Pin 3 = NC, Pin 4= High level Audio Signal (it can be used for microcontroller interface)

Features

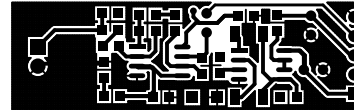
- Power supply: 5V DC @ 10 mA
- On-Board electret condenser microphone
- Dual Stage Amplification
- PCB dimensions: 47.31 x 14.76 mm



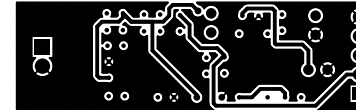




SILK SCREEN TOP



TOP LAYER



BOTTOM LAYER

PCB DIMENSIONS 47.31MM X 14.76MM

BOM						
NO.	QNTY.	REF.	DESC.	MANUFACTURER	SUPPLIER	SUPPLIER PART NO
1	1	CN2	5 PIN MALE HEADER PITCH 2.54MM	WURTH	DIGIKEY	732-5318-ND
2	2	C2,C4	4.7uF/25V	NICHICON	DIGIKEY	493-11353-3-ND
3	3	C3,C6,C7,C1	0.1uF/50V SMD SIZE 0805	MURATA/YAGEO	DIGIKEY	
4	1	C5	10uF/25V SMD SIZE 1206	MURATA/YAGEO	DIGIKEY	
5	7	D1,U2,D2,R7,C8,R9,R10	DNP			
6	1	MK1	MIC	SOBERTON INC	DIGIKEY	433-1088-ND
7	2	R1,R5	100K 5% SMD SIZE 0805	MURATA/YAGEO		
8	2	R2,R8	10K 5% SMD SIZE 0805	MURATA/YAGEO		
9	2	R3,R4	1K 5% SMD SIZE 0805	MURATA/YAGEO		
10	1	R6	24K 1% SMD SIZE 0805	MURATA/YAGEO		
11	1	U1	LM358 SOIC8	TI	DIGIKEY	LM358MX/NOPBCT-ND

