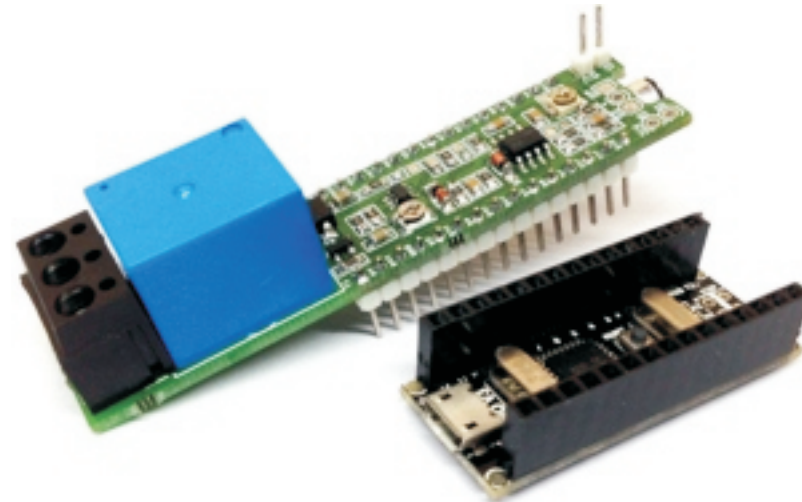


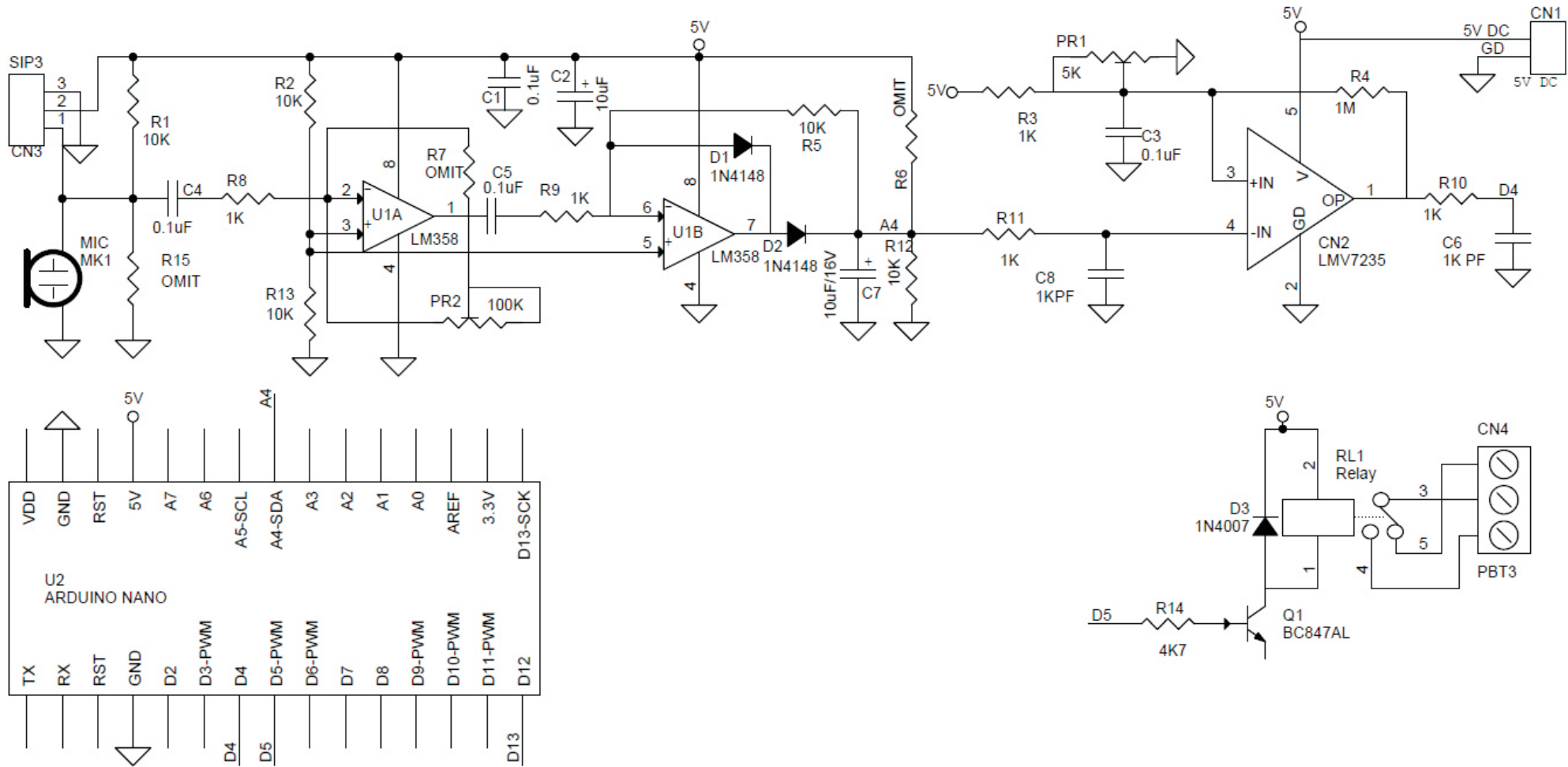
Sound Sensor with Relay Arduino Nano Shield

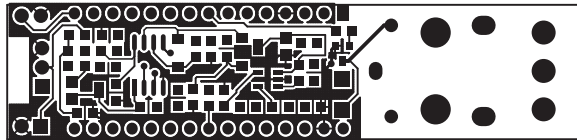
Sound sensor with Relay driver shield for Arduino Nano Intendant to develop sound activated ON/OFF switch or other project required sound sensor. LM358 op-used as amplifier, first op-amp amplify the micro-phone signal and 2nd op-amp work as half-bridge rectifier converts AC signal into DC voltage. This DC voltage connected to analog pin A4 of Arduino Nano, further this circuit has comparator which provide High level signal output and goes low as sound detected, this signal connected to D4 Pin of Arduino Nano. The board provides dual outputs, analog voltage as well as digital output. Output of sensor is normally high and goes low when it detects the sound. PR1 Trimmer potentiometer provided to set the threshold. PR2 Trimmer potentiometer can be used to set the sound sensitivity. On Board 5V Relay can be triggered using digital Pin D5 of Arduino Nano, Relay can drive load up to 7Amps 12V DC or 230V AC. Circuits work with 5V DC and consumes approx. 50mA Current.

Features

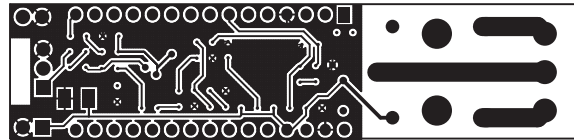
- Supply 5V DC
- Relay Switch Normally Open/ Normally Closed
- Relay Switch 7Amps
- DC Voltage Output Connected to A4 Analog Pin
- Sensor Digital Output Connected to D4 Digital Pin
- D5 Digital Pin Controls The Relay
- PR2- Trimmer Potentiometer to set the sound sensitivity
- PR1- Trimmer Potentiometer to set the threshold
- CN1 Supply Input
- CN4 Relay Output
- PCB Dimensions 76.49mm x 17.93mm



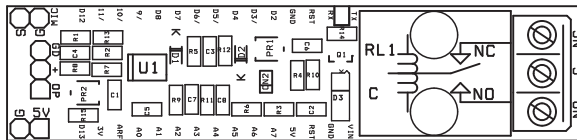




TOP LAYER



BOTTOM LAYER



SILK SCREEN TOP



SILK SCREEN BOTTOM

PCB DIMENSIONS 76.49MM X 17.93MM

BOM			
SR.	QNTY.	REF.	DESC.
1	1	CN1	2 Pin HEADER CONNECTOR
2	1	CN2	LMV7235 SMD SOT223
3	1	CN3	3 PIN HEADER CONNECTOR
4	1	CN4	3 PIN SCREW TERMINAL
5	4	C1,C3,C4,C5	0.1uF SMD 0805
6	1	C2	10uF /10V SMD 0805
7	1	C6	1K PF SMD 0805
8	1	C7	10uF/16V SMD 1210
9	1	C8	1KPF SMD 0805
10	2	D1,D2	1N4148 SMD
11	1	D3	SM4007 SMD
12	1	MK1	MIC-MINI MICROPHONE
13	1	PR1	5K SMD 3MM
14	1	PR2	100K SMD 3MM
15	1	Q1	BC847AL SOT223-3
16	1	RL1	5V SUGER CUBE Relay
17	5	R1,R2,R5,R12,R13	10K SMD 0805
18	5	R3,R8,R9,R10,R11	1K SMD 0805
19	1	R4	1M SMD 0805
20	3	R6,R7,R15	OMIT
21	1	R14	4K7 SMD 0805
22	1	U1	LM358 SMD SO8
23	1	U2	ARDUINO NANO

