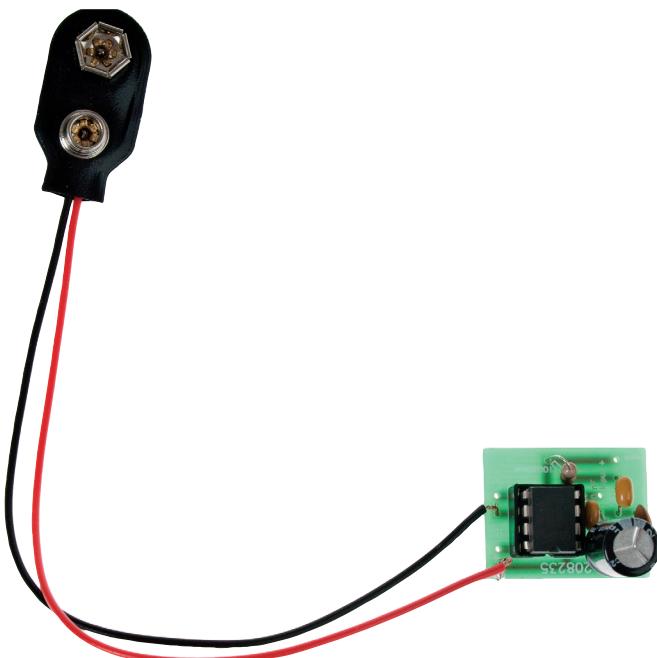


111.677

Amplifier for MP3 Loudspeaker



PARTS LIST		
	Code	
Circuit board		1
Capacitor 1 μ F	105	1
Capacitor 470 nF	474	1
Capacitor 100nF	104	1
Capcitor 220 μ F		1
Resistor 100 kOhm		1
Micro switch		1
Small scews		4
Modelling plywood 70x50x1,5		1
IC holder 8-plg.		1
ICTDA 7052		1
Black wire		1
Battery clip		1

Necessary tools

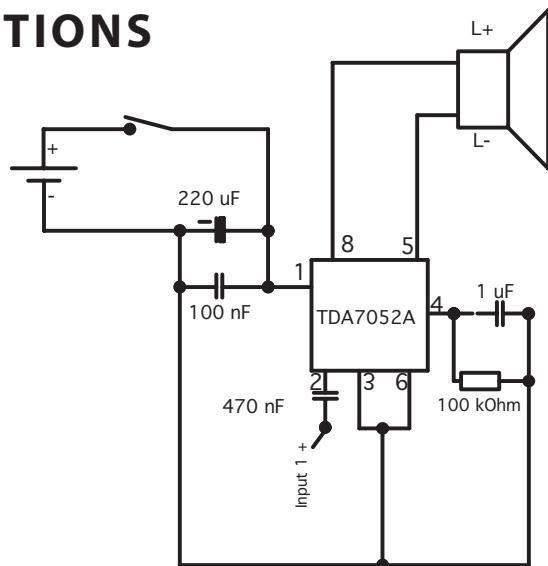
Solderng iron,solder
 Fretsaw
 Drill ø 3mm
 All purpose glue
 Wire strippers

Please Note

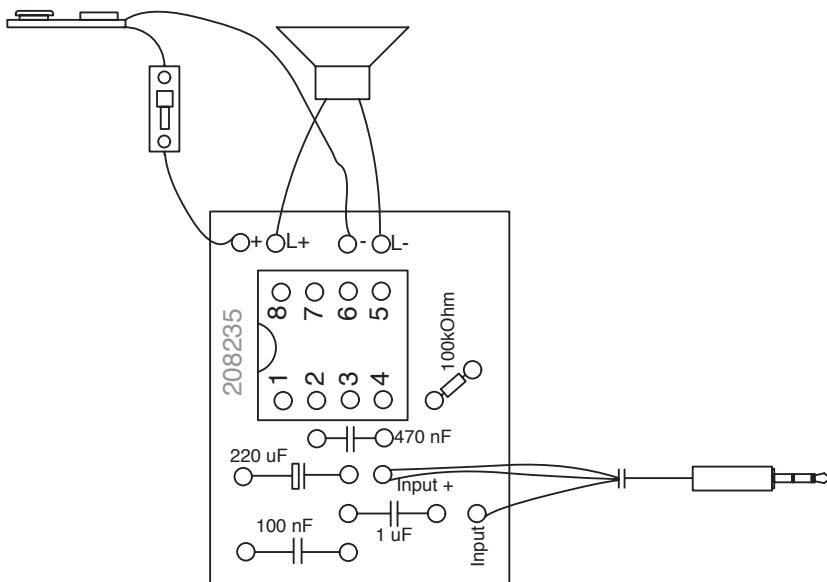
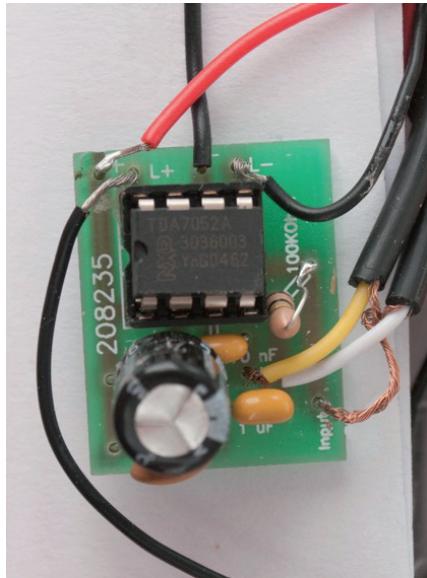
The OPITEC range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technolo- gy. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Dan- ger of suffocation!

INSTRUCTIONS

Schematic diagram



1. Constructing the circuit board



The circuit board has two different sides. The top side is drilled and printed showing the positions of the components. The bottom has all the tracks where the components are soldered

Die IC holder, is inserted in the top of the board the correct way around and the legs are soldered to the tracks on the bottom of the board.

NOTE: The IC holder has a notch at one end. This must correspond with the diagram on the top of the board

The amplifier IC is inserted in the holder once all the other components have been soldered in place to ensure that is not damaged during the soldering

Insert the 470 nF ceramic capacitor (Code 474) from above. Bend the legs slightly apart underneath the board and solder them to the tracks.

Now add the capacitor 100 nF (Code 104) and the 1 uF Kondensator (Code 105) in the marked places on the board.

Insert the resistor 100 kOhm in the holes in the top of the board and solder it to the tracks underneath.

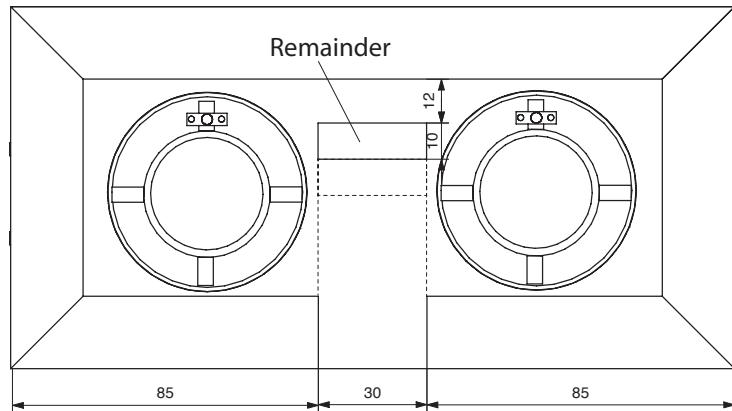
Next insert the capacitor 220 uF, here the polarity must be noted. It must be inserted the correct way around note the plus and minus legs. Solder in place underneath!

Check all the capacitors once more, especially the polarity if necessary, then trim the extra length from the legs underneath the board

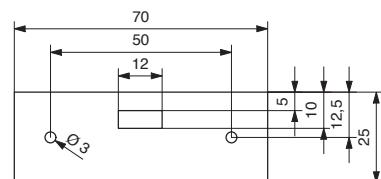
Solder the red battery cable to the plus connection and the black cable to the minus connection on the board.

2. Mounting the loudspeakers:

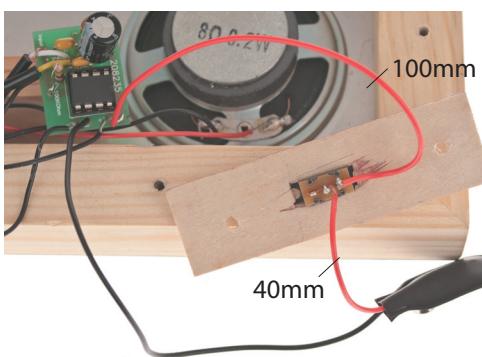
3. Before mounting the loudspeakers measure out and saw the pine side strips and the middle piece (30mm)
Measure and saw out the middle remainder piece ca. 10x20x30 and glue it in place as shown.



4. Measure and saw out the plywood piece 25x70mm and sand the edges. Measure and cut out the slot for the switch as shown. To do this drill a hole in the slot for a fretsaw blade to pass through and the saw out the shape. Sand the edges drill the 3mm holes



5. Insert the switch in the slot and glue it in place. Divide up the red cable from the battery clip, so that the cable to the circuit board is ca 100mm and the cable on the connector is 40mm long. Take the ca. 100mm red cable and solder it to the circuit board (+) and solder it to the outer connection on the switch and the short red to the middle connection on the switch. See circuit diagram.



6. Take the connection cable from the MP3 player. Connect (solder) it to the input on the circuit board as shown overleaf. The ends of the two cables are twisted together and soldered to plus + input connection on the circuit board

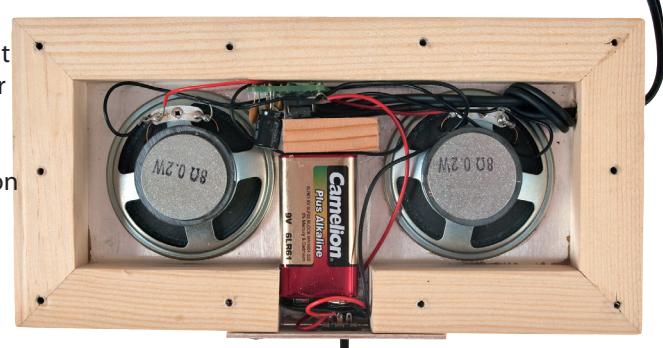
see circuit diagrams. The 3rd uninsulated cable should be shortened to 20mm and soldered to a circuit board input

Connect with a cable L+ and L- (Circuit board) with a loudspeaker. Then as as already stated, make a connection from loudspeaker + to loudspeaker + and loudspeaker minus to loudspeaker minus

7. Connect a 9V- Block battery with the battery clip and place it as shown. Insert the circuit board carefully between the outer and and the middle piece.

Mount the plywood piece with the switch and fix it in position with screws!

Finished!



Wiring plan Loudspeaker

Please note !

If the components are soldered in the wrong place it can lead to the destruction of the circuit or any device that it is connected to !

