

A WRITTEN GUIDE TO UPCYCLING A

Beovox 3000/5000

INTRODUCTION

This is a guide on how to upcycle a Beovox 3000 or 5000 loudspeaker using a BeoCreate 4-Channel amplifier and a Raspberry Pi.

The upcycling process will take roughly two hours and we advise you to prepare for the project by having all the required items at hand.

PARTS	TOOLS
<ul style="list-style-type: none">· Beovox 3000 or 5000· BeoCreate 4-Channel Amplifier· Raspberry Pi 3· MicroSD card (at least 4GB)· Power plug & supply (page 3)· 3D printed parts (page 3)· Hot glue or epoxy glue· Four insulated wires for extending existing wires (25cm)	<ul style="list-style-type: none">· Soldering equipment· Screwdrivers and TORX T20 driver· Glue gun· Wirecutters· Wirestripper· Electric drill· 8mm and 3mm drill bits

EXTRAS

Recommended power supply

18-24V, about 90W

<https://www.hifiberry.com/shop/accessories/mean-well-gs60a18-p1j/>

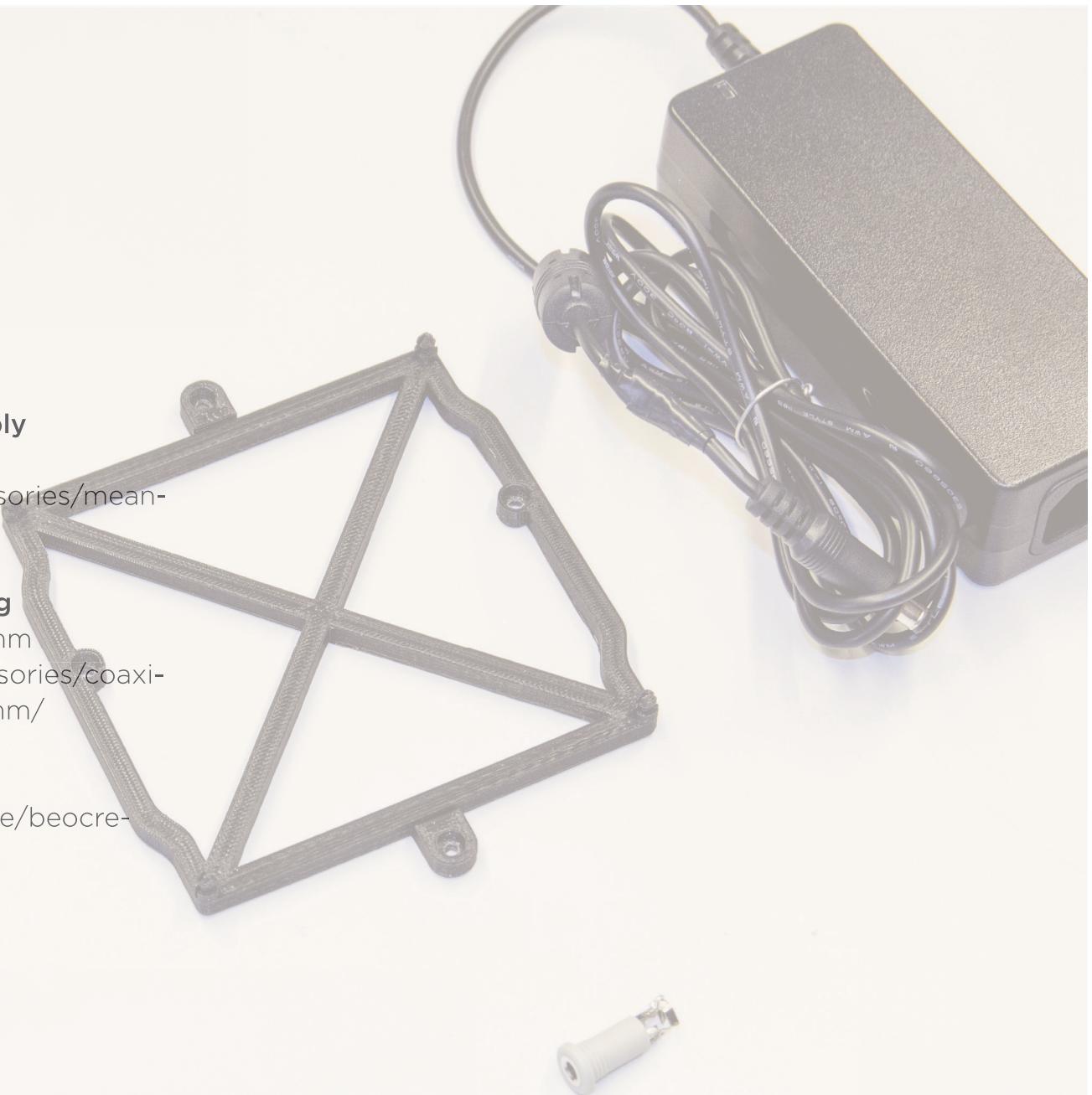
Recommended power plug

mouting hole diameter: Ø8mm

<https://www.hifiberry.com/shop/accessories/coaxial-power-connector-5-5x2-1mm/>

Files for 3D printing

<https://www.hifiberry.com/beocreate/beocreate-doc/>



TAKING APART THE BEOVOX 3000/5000

STEP ONE

Start by covering the high gloss aluminum with masking tape to reduce the risk of making scratches during the up-cycling process.

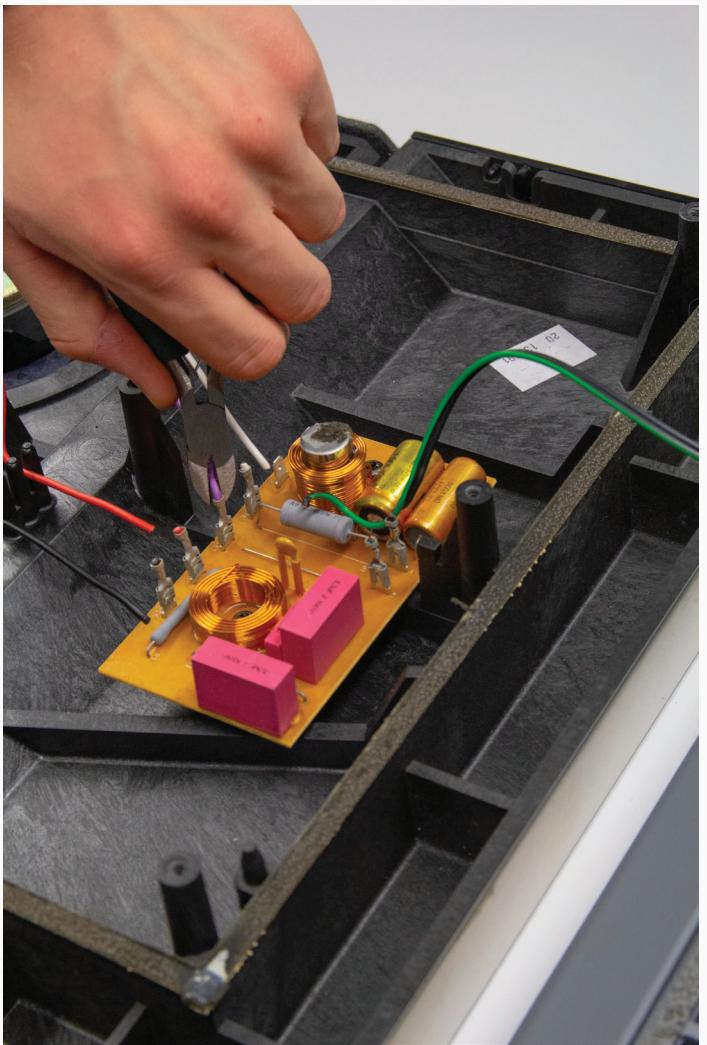




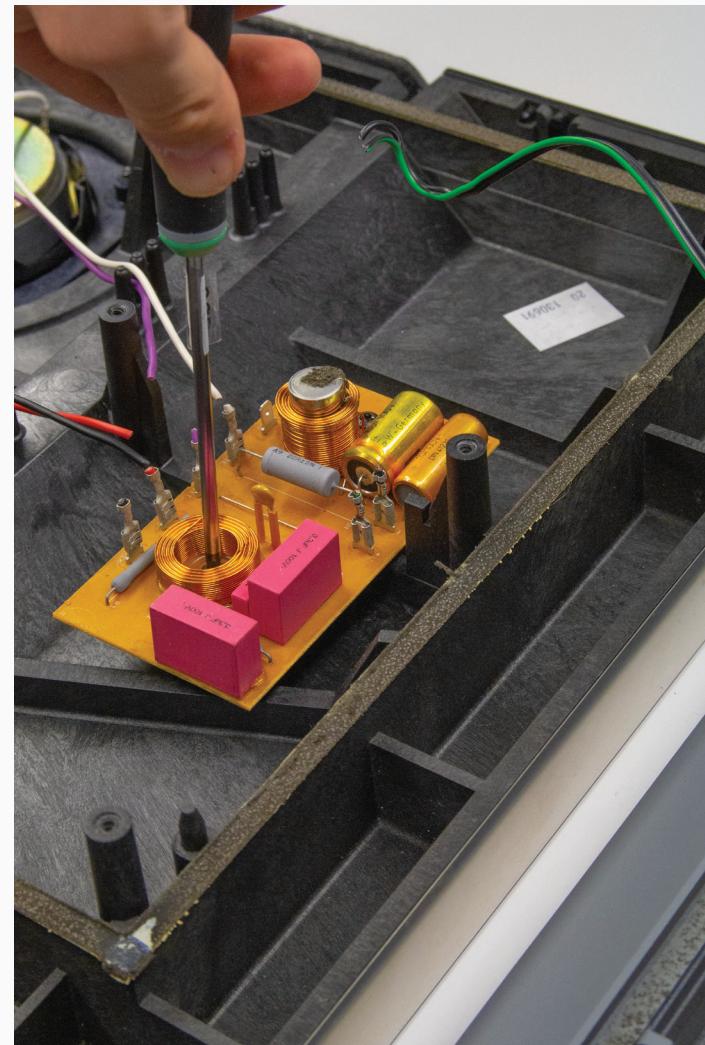
Unscrew the screws holding in place the back plate of the speaker. There are 10 screws in Beovox 3000 and 17 in Beovox 5000.



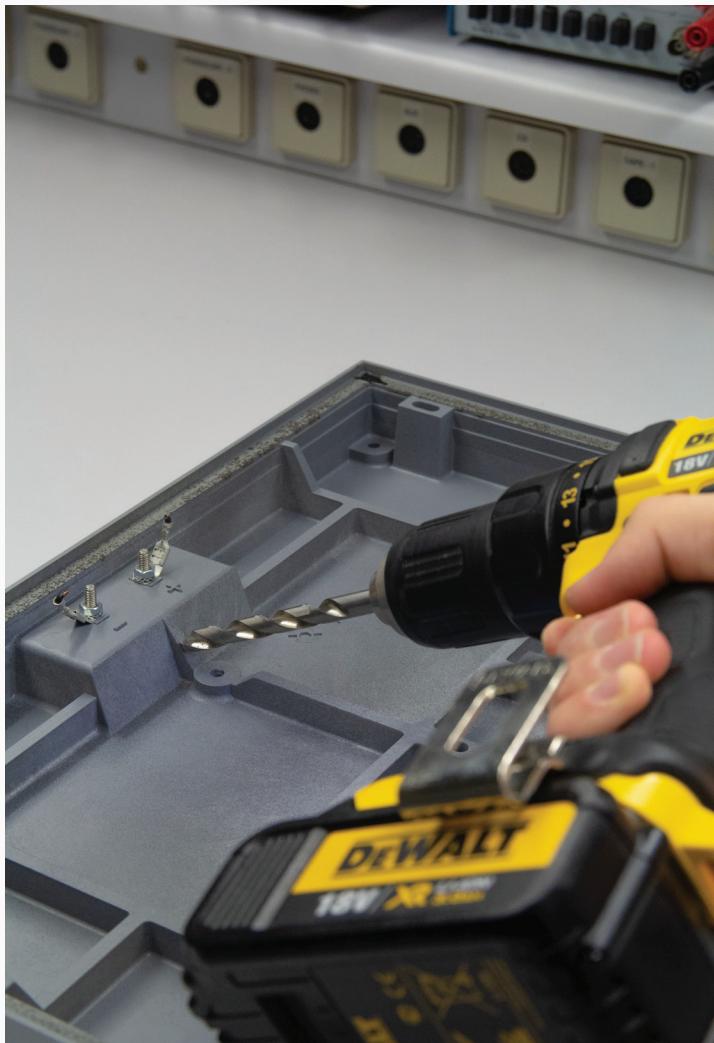
Remove the back plate and the sound dampening material. Keep the sound damping material for later use.



Cut the wires connected to the crossover.



Unscrew the crossover and remove it. Save the screws for step three.



After disconnecting the wires going to the back plate, drill a 8mm hole for the power connector at the desired location.



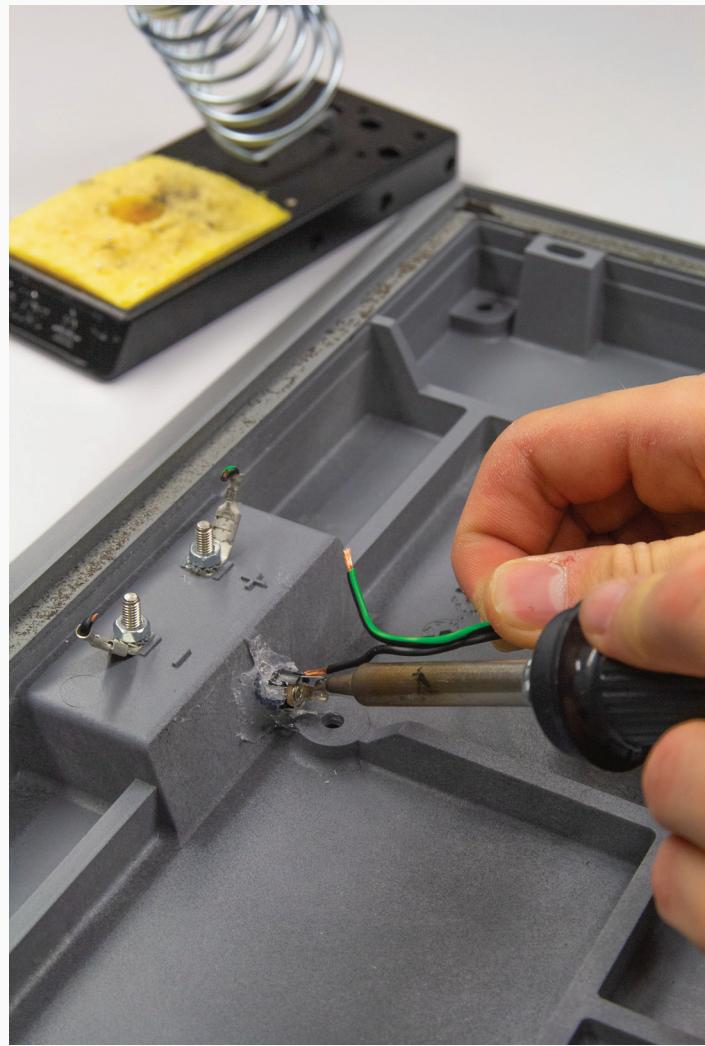
Using sufficient amounts of hot glue, fasten the power connector to the back plate.

CREATING A NEW POWER CONNECTION

STEP TWO



Strip the insulation of the original wires connected to the back plate. These will now be used for power.



Solder the prepared wires, to the power connector.



Note: If the connector is centered, it will be in the way of a mounting post when assembling. To avoid this, bend the pins and cables out of the way of the screw hole as shown.

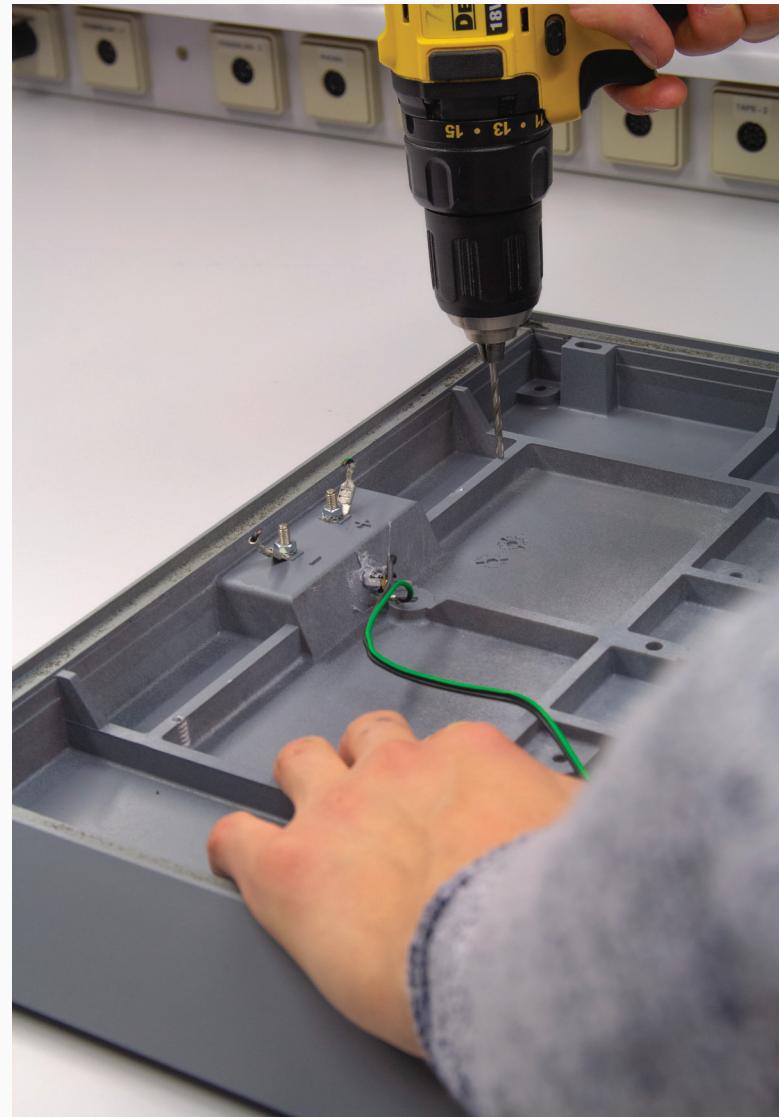
ASSEMBLE THE PARTS

STEP THREE

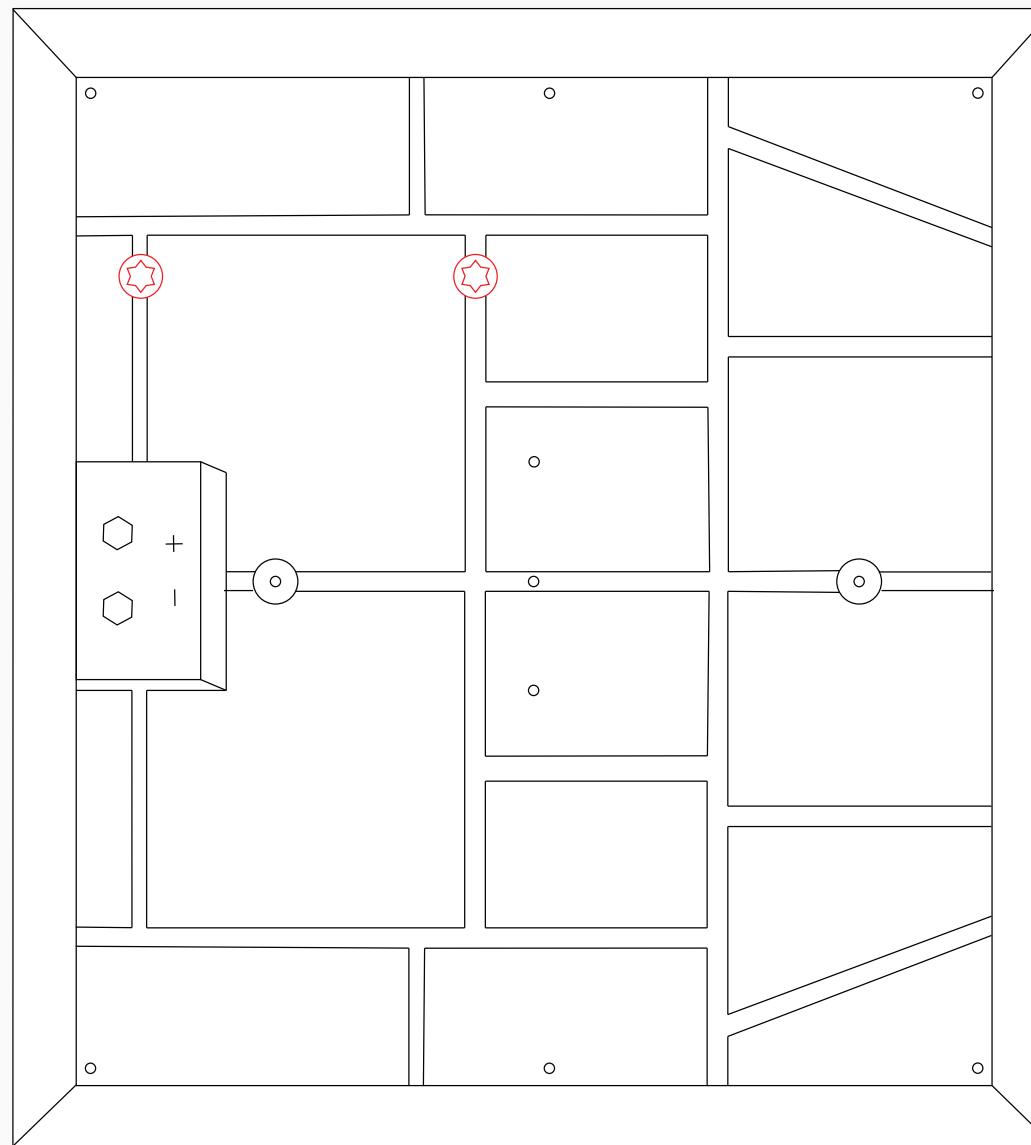


Place the Raspberry Pi upon the BeoCreate 4-Channel Amplifier. The supplied spacers will not fix the Pi to the board, but just prevent it from flexing and touching any components on it.

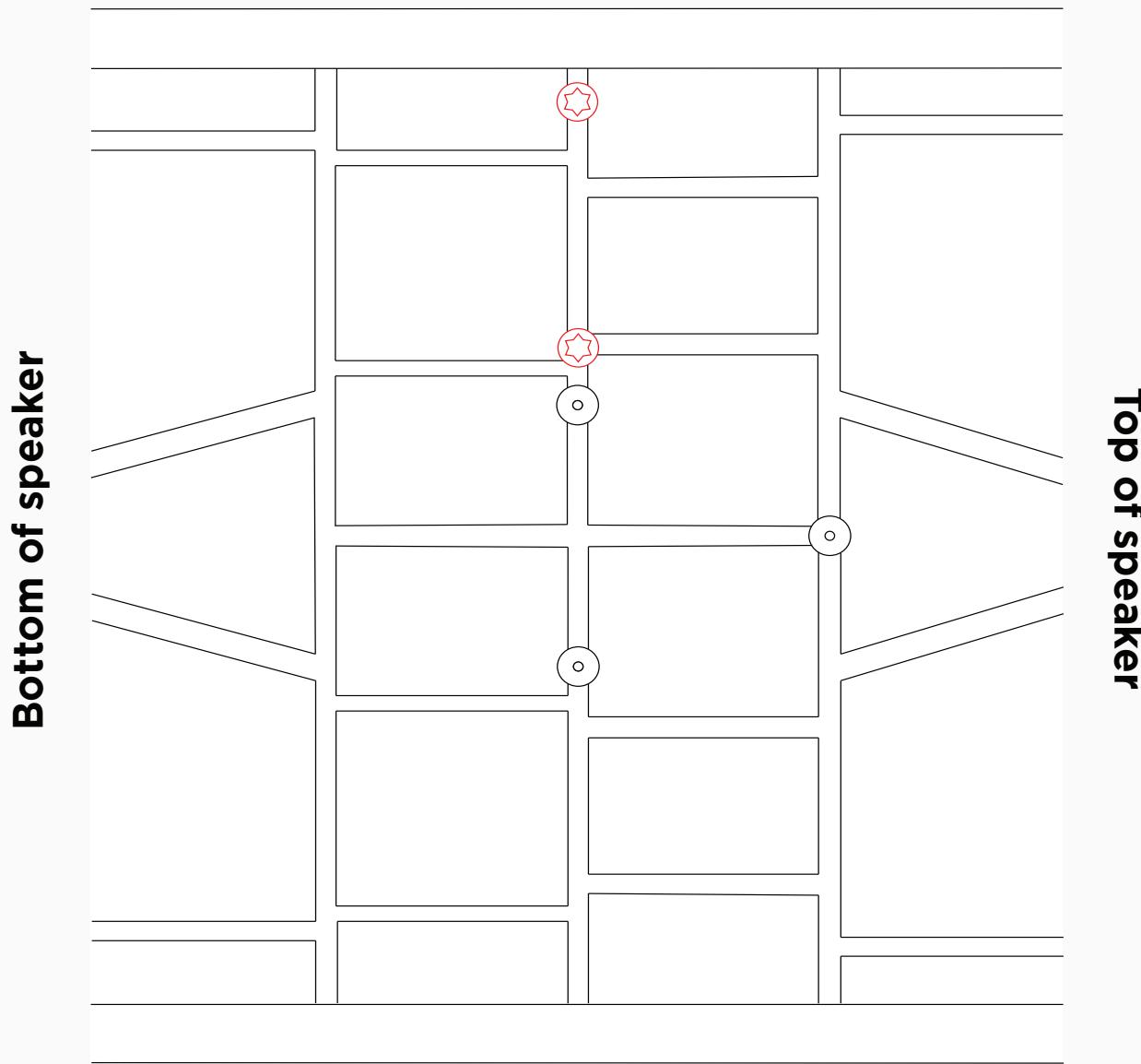
Drill two 3mm holes for mounting the 3D printed frame on the inside of the back plate. Diagrams of the exact position for Beovox 3000 and Beovox 5000 are on the next two pages. The holes should be about 98mm apart.

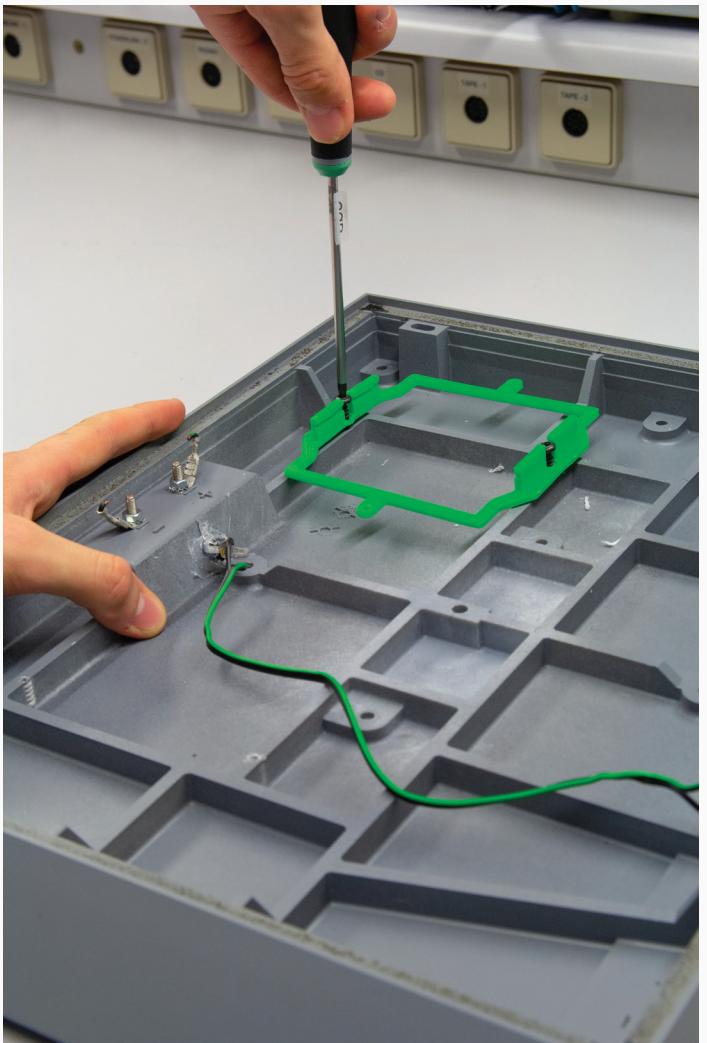


Beovox 3000 Mounting Holes

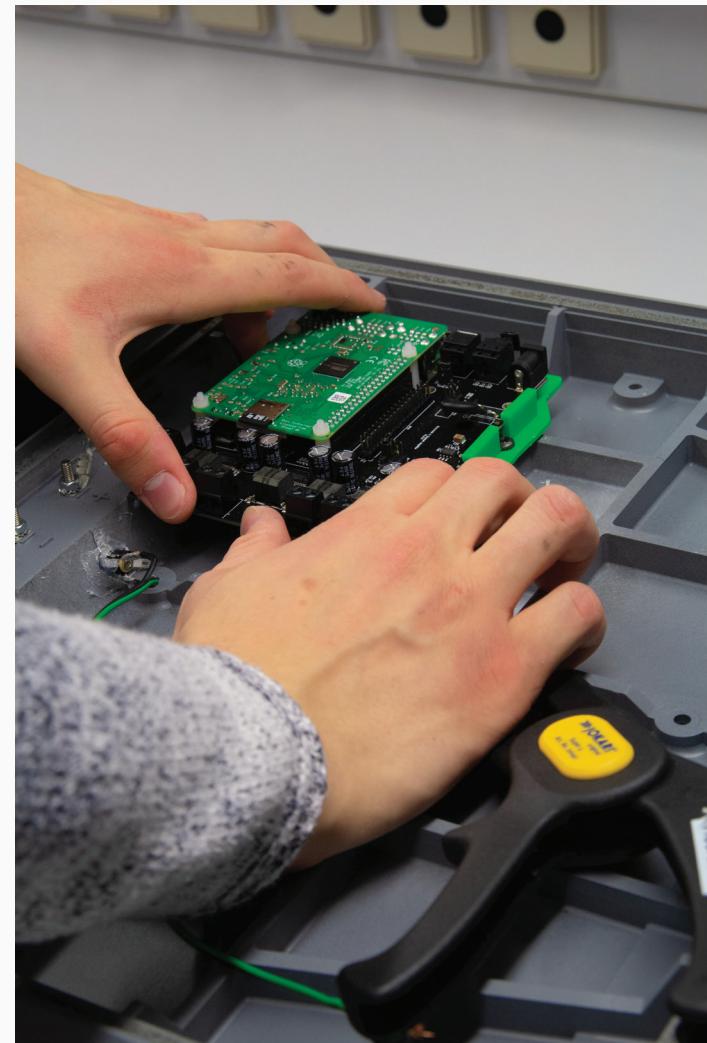


Beovox 5000 Mounting Holes





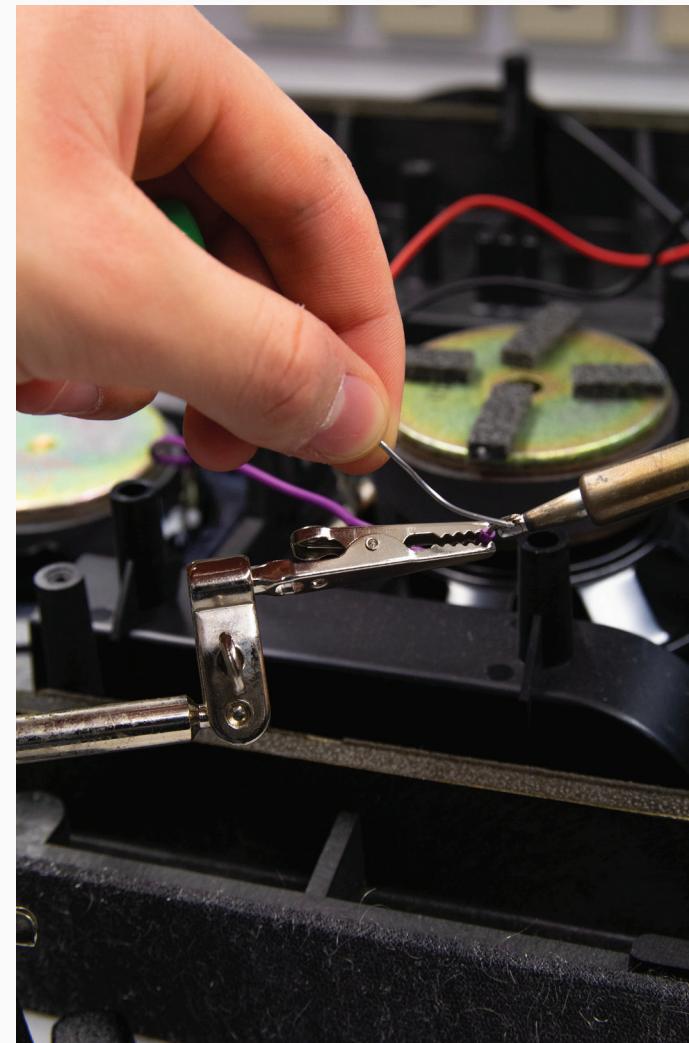
Attach the 3D printed frame on the back plate using the mounting screws of the previously removed crossover.



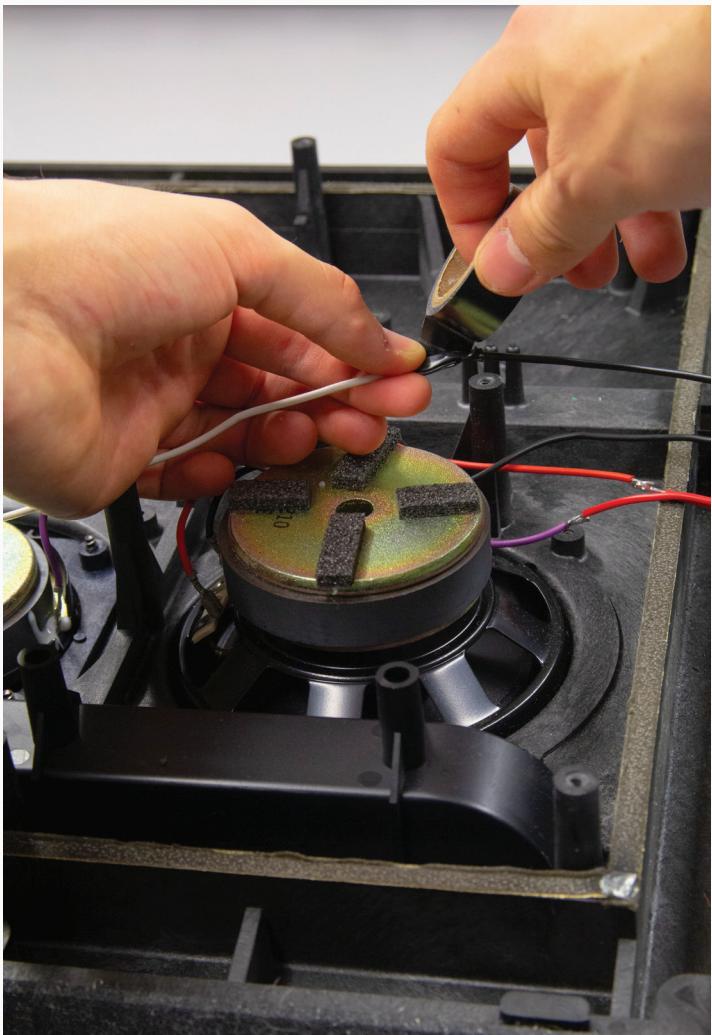
Slide the 4-Channel Amplifier on to the 3D printed frame.



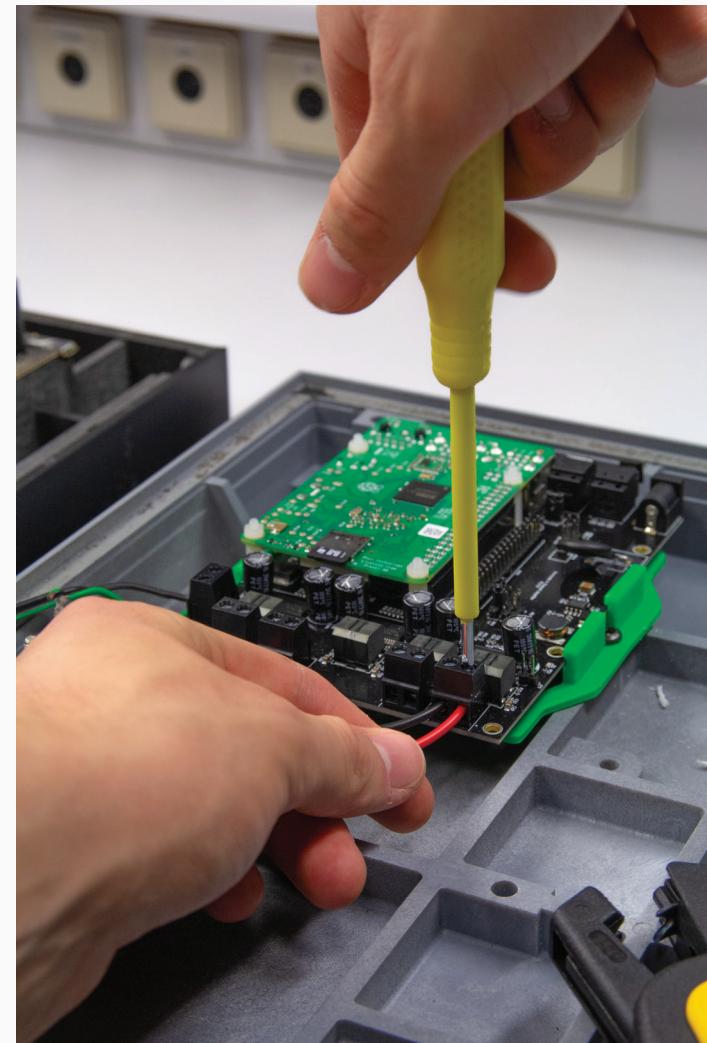
Prepare four 25cm extensions for the driver wires, by stripping the insulation of the ends.



Solder on the extensions to the wires from the drivers.

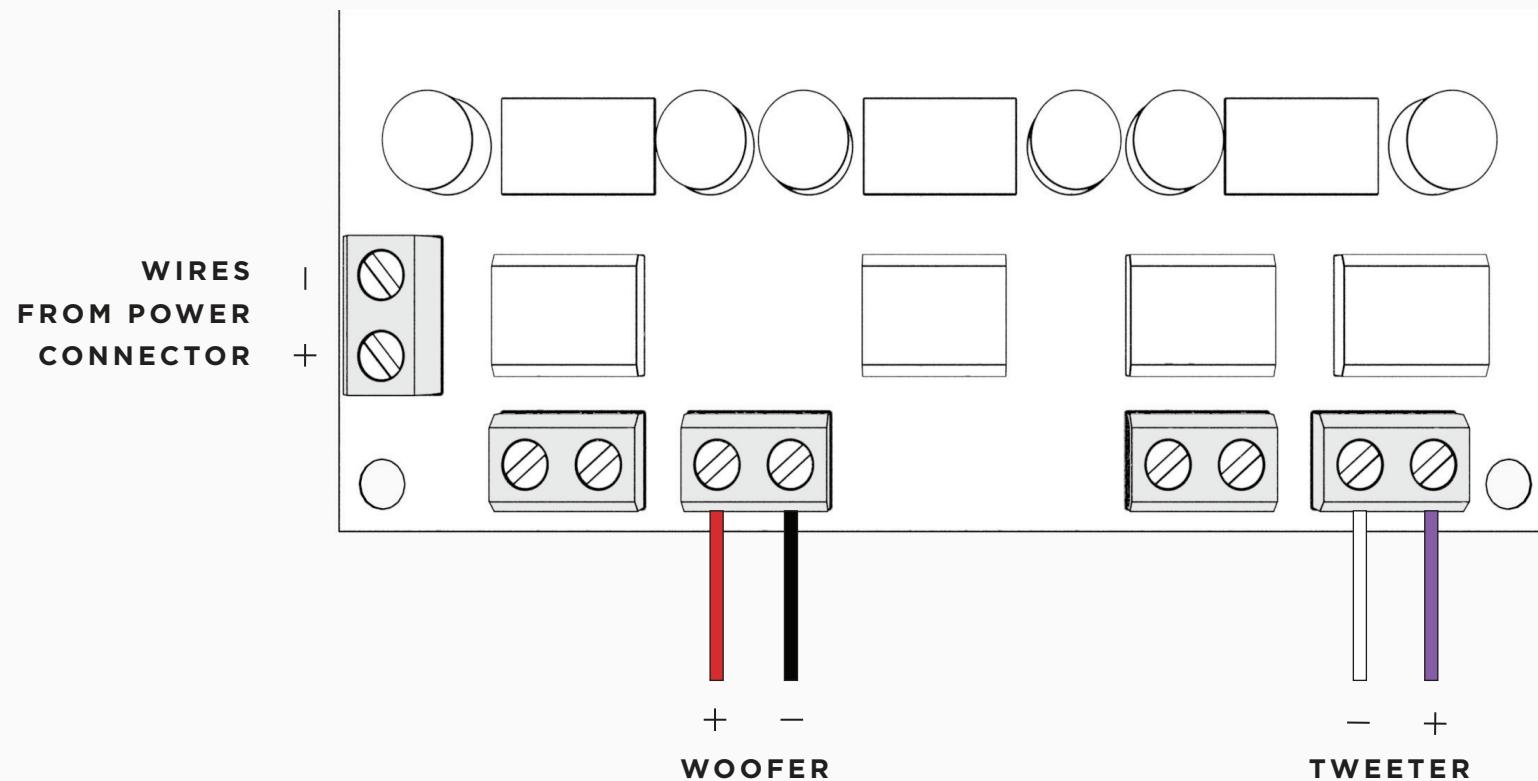


Insulate the connections using insulation tape or shrink tube.

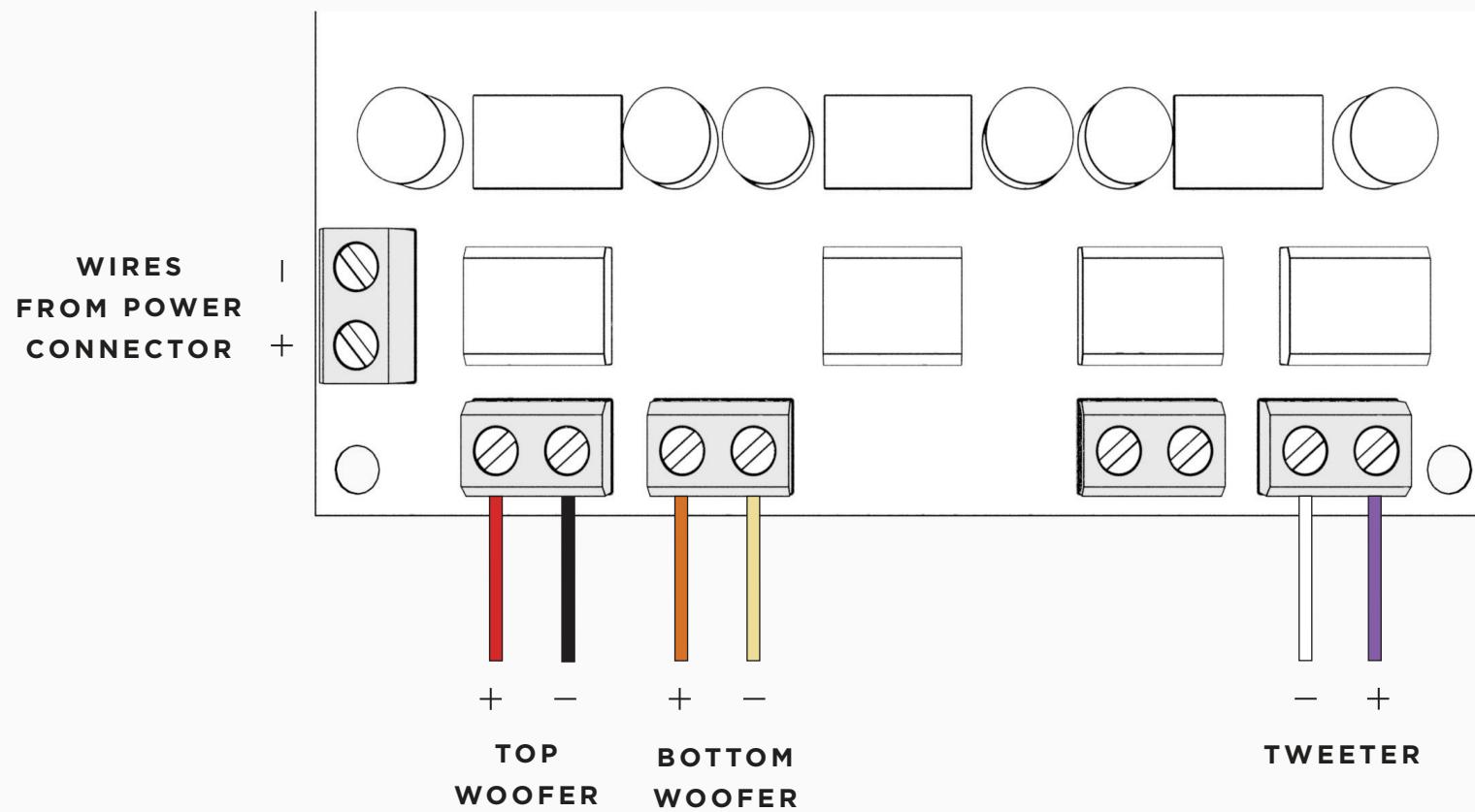


Connect power and the drivers to the amplifier. A detailed diagram is shown on the next two pages.

Beovox 3000 AMPLIFIER OUTPUTS

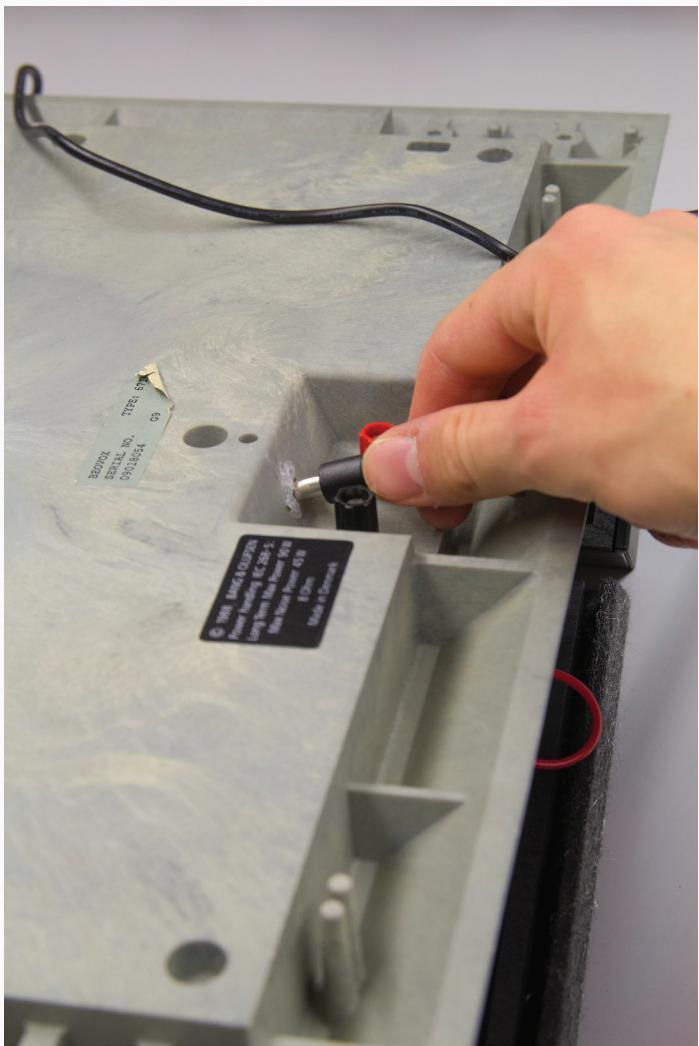


Beovox 3000 AMPLIFIER OUTPUTS



CLOSING UP

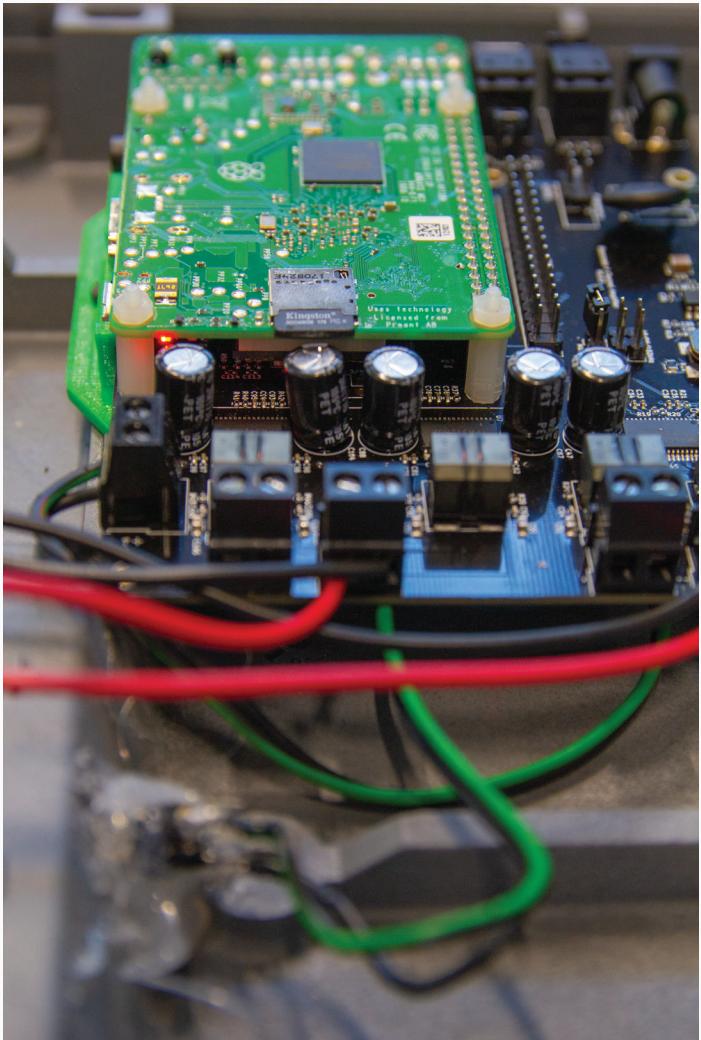
STEP FOUR



Connect the power supply.



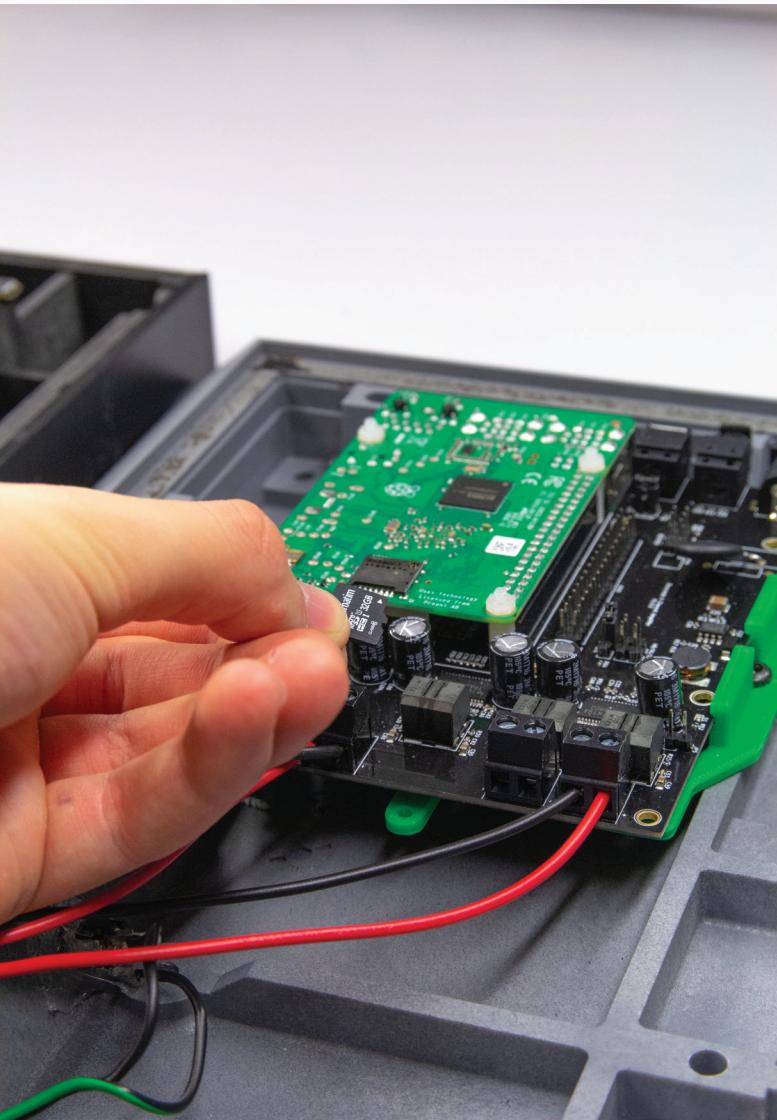
Plug the power supply into a wall socket.



Make sure a red light turns on, on the Raspberry Pi. If it does not turn on, you have switched the polarity of the power supply.

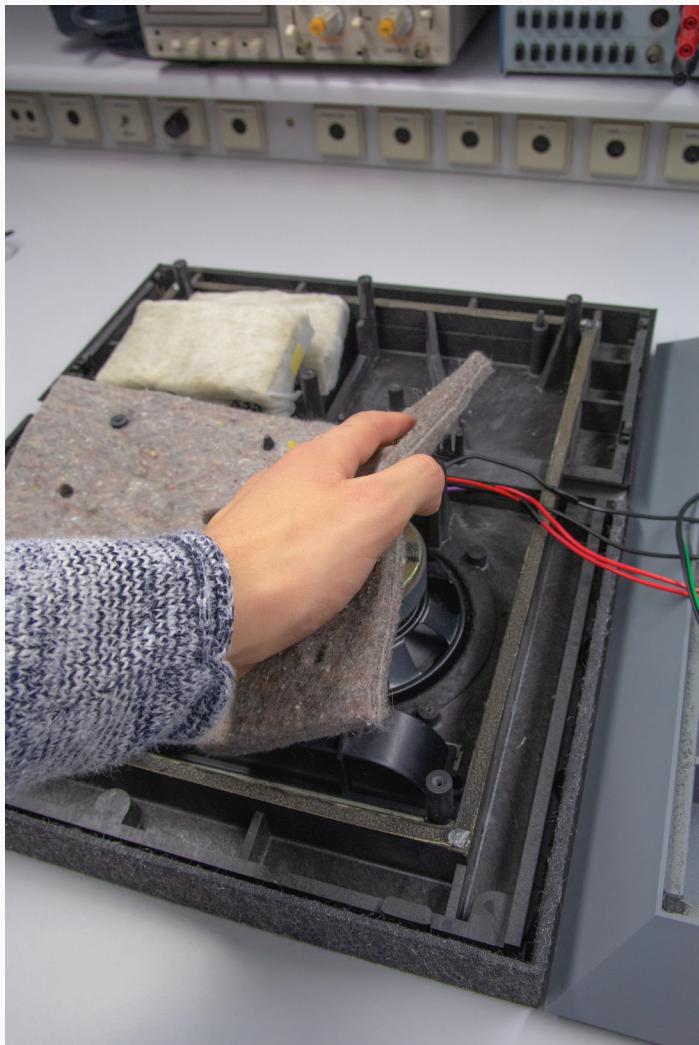


Unplug the power supply from the wall-socket to further proceed with the up-cycling.

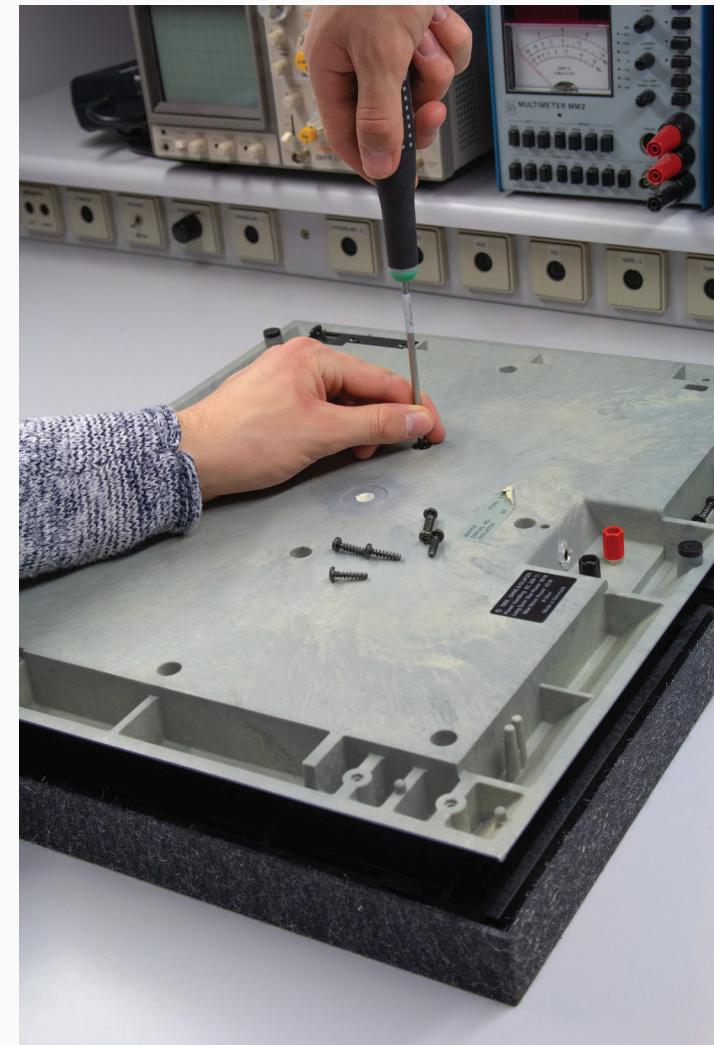


Insert the SD card with the BeoCreate software installed on it and proceed to set up the amplifier.

<https://www.hifiberry.com/beocreate/beocreate-doc/beocreate-first-steps/>



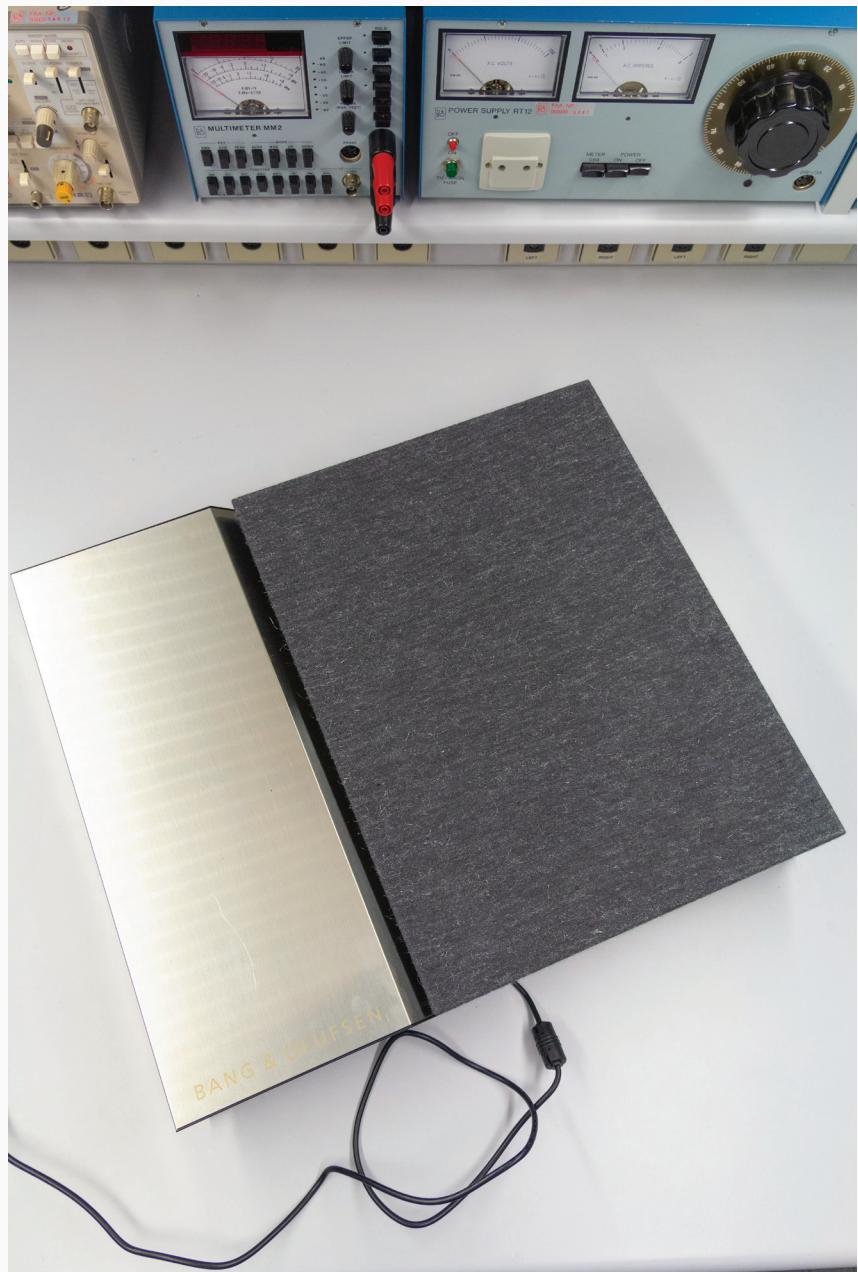
Place the sound dampening material back into the speaker.



Attach the back plate using the existing screws.

Remove the masking tape from the high gloss aluminum.





ENJOY

Your speaker is now physically upcycled.

You can find the further software features here:
<https://www.hifiberry.com/beocreate/beocreate-doc/beocreate-software-documentation/>