A WRITTEN GUIDE TO UPCYCLING A

Beovox CX100

INTRODUCTION

This is a guide on how to upcycle a Beovox CX100 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
· Beovox CX100	· Soldering iron
· BeoCreate 4-Channel Amplifier	· Screwdrivers
· Raspberry Pi 3	· Glue gun
· MicroSD card (at least 4GB)	· Wirecutters
· Power plug & supply (page 3)	· Wirestripper
· 3D printed parts (page 3)	· Hacksaw
· Hot glue or epoxy glue	
· Screws and spacers to fit the 3D printed frame	
· Two insulated wires for the power connector (20cm)	

YOU WILL ALSO NEED:

Recommended power supply
18-24V, about 90W
(link to come)

Recommended power plug
mounting hole diameter: Ø8mm
(link to come)

Files for 3D printing
You will need to two 3D printed parts
· Puck for power connector
· Bracket for BeoCreate 4-Channel amplifier

downloads.hifiberry.com/beocreate

TAKING APART THE CX100

STEP ONE

From the front of the speaker, remove the fabric covers.

From the reverse side unscrew the back plate.

Remove the dampening material.

Cut all of the wires connecting the drivers to the back plate.

NOTE

Evaluate the state of the speaker drivers and make sure they are in good condition. If the speaker foams are damaged a repair is needed.

You can either:
a) refoam yourself (refoaming kits and instructions are available here: (link to come))

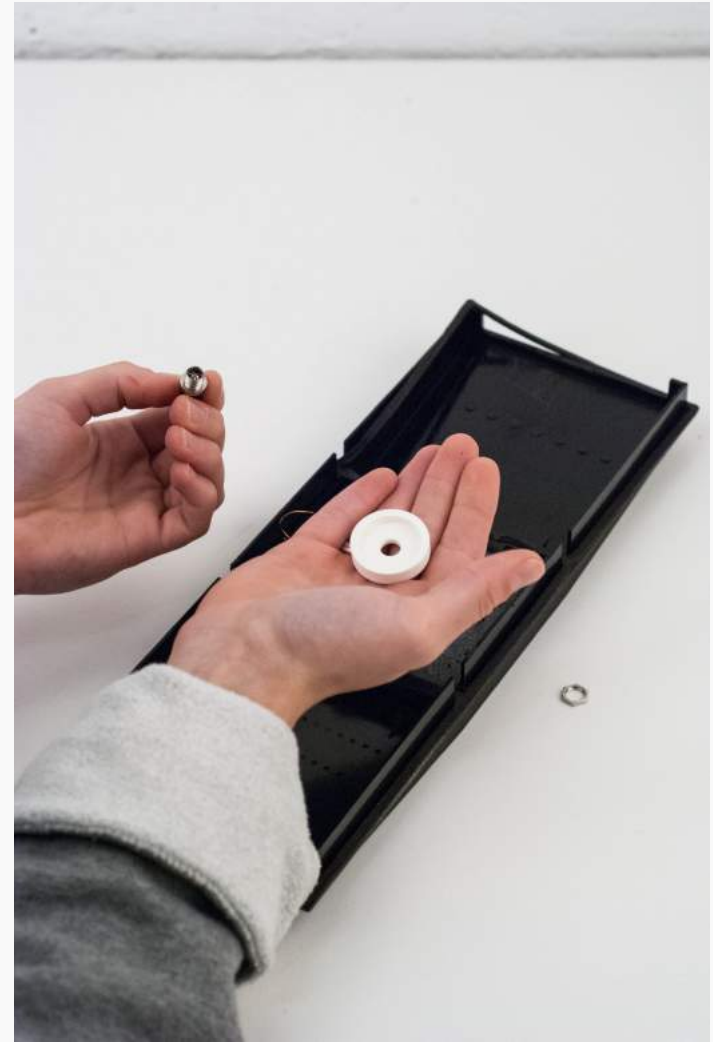b) buy new drivers compatiable with the original (link to come)

c) get them repaired by a professional (link to come)

CREATING A NEW POWER CONNECTION

STEP TWO

Remove the original plastic speaker connector with a saw. Make sure to cut through the wider end, upon which you will be later placing the 3D printed puck.
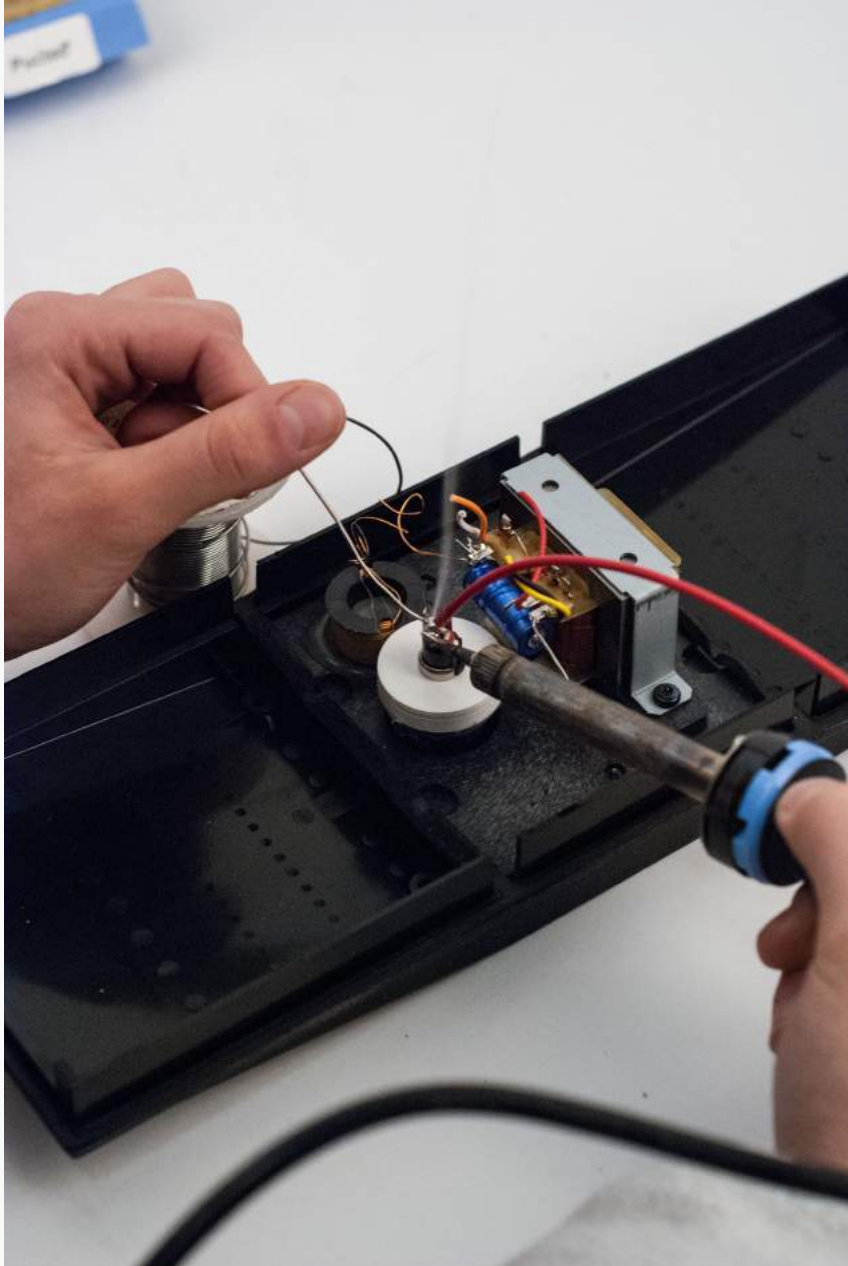

Screw the power plug into the 3D printed puck.

Apply glue to the 3D printed holder.
Make sure to cover all the inner walls with a
sufficient amount of glue and attach it to
the hole on the back plate.

Strip the insulated wires you reserved for
the power connector, so that approximately
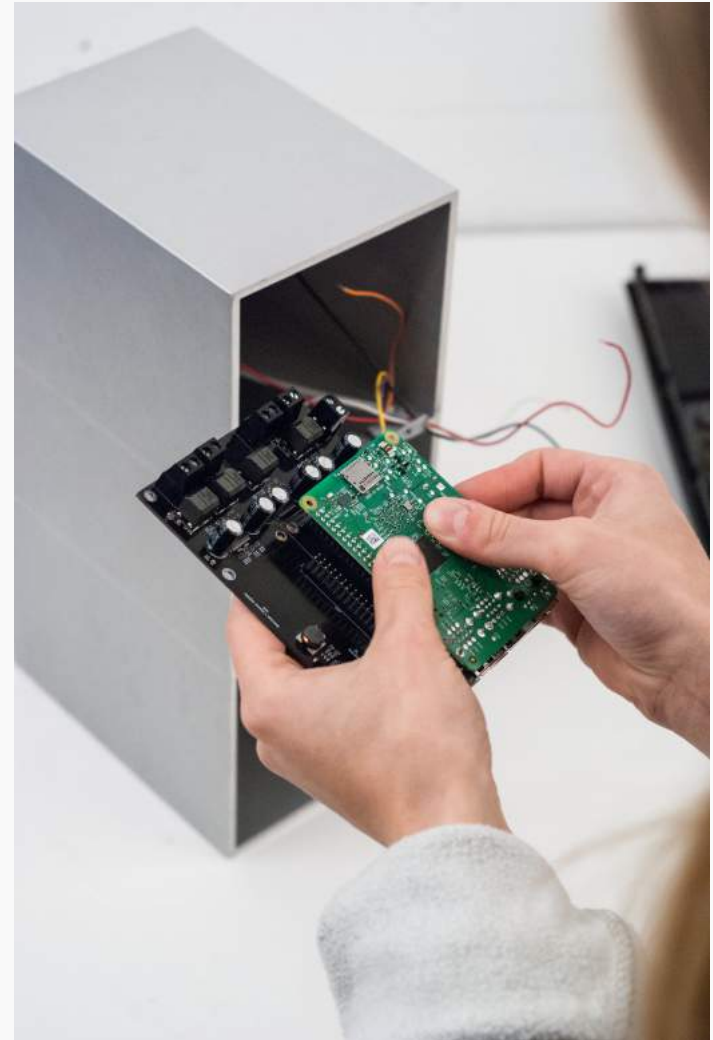1cm of wire is exposed.

Check the polarity of the power supply (which is +/-) and identify the corresponding pin on the power plug.
Solder both wires to the power plug pins.
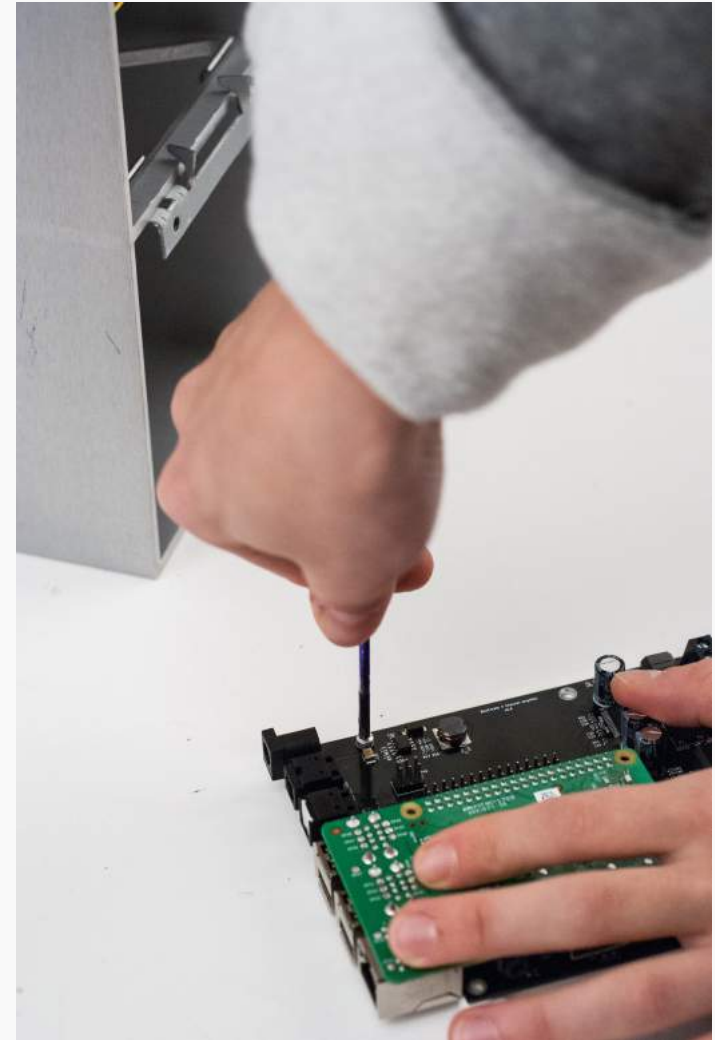
ASSEMBLE THE PARTS

STEP THREE

Strip the wires coming from the drivers, so that again approximately 1 cm of wire is exposed.

Place the Raspberry Pi upon the BeoCreate 4-Channel Amplifier.

Install spacers to three corners of topside of the Pi using the supplied nuts as seen in the pictures (there are both nuts and screws in the box).

Screw the 4CA to the frame. Don't use screws in the holes that will be covered by the spacers
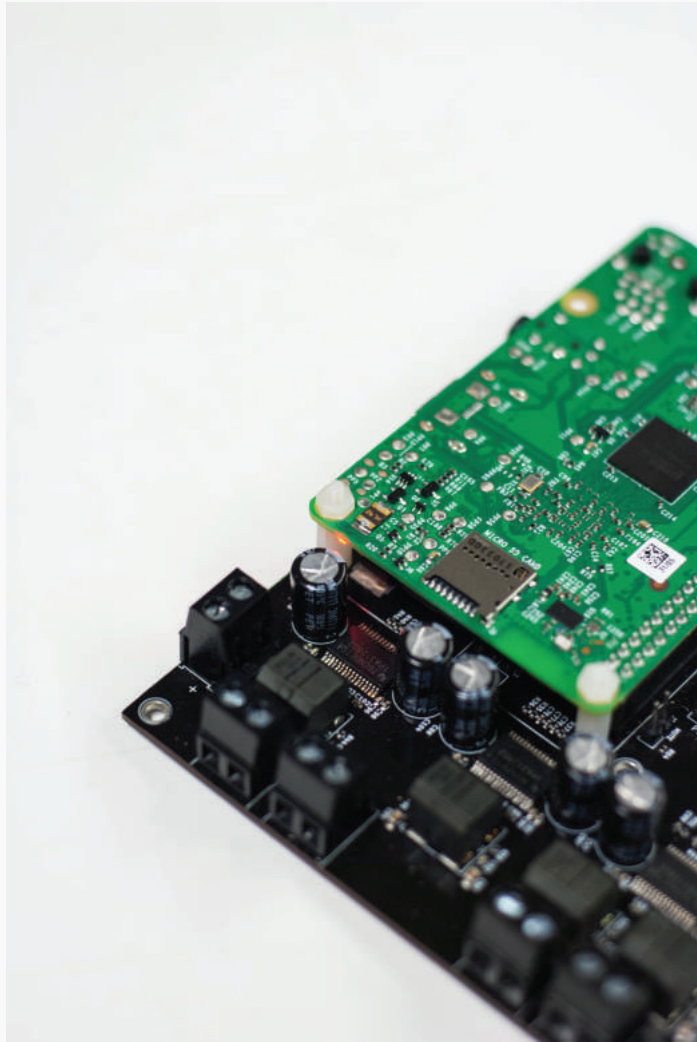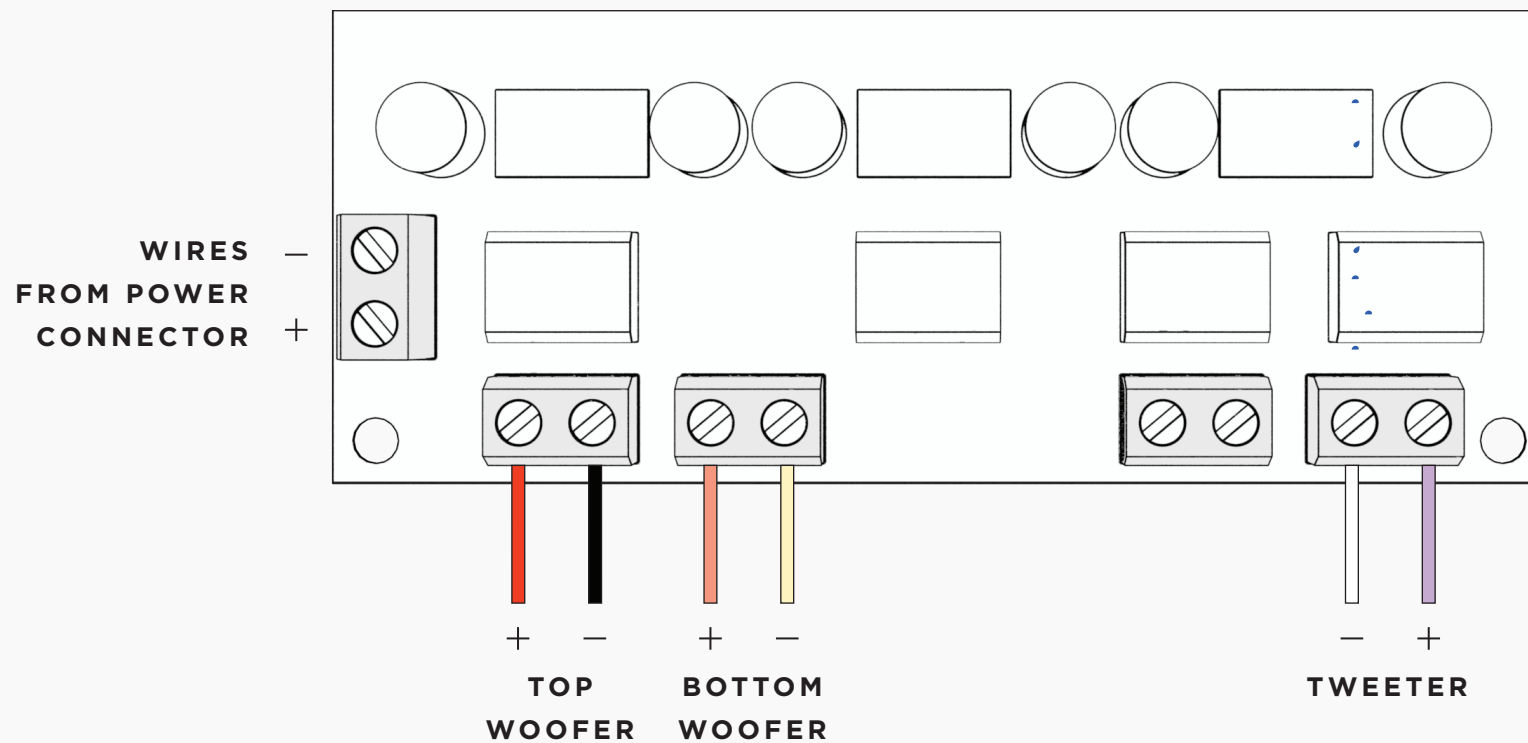
Install the Pi onto the 4CA. The spacers won't affix the Pi to the 4CA, but just prevent it from flexing and touching any components on it.
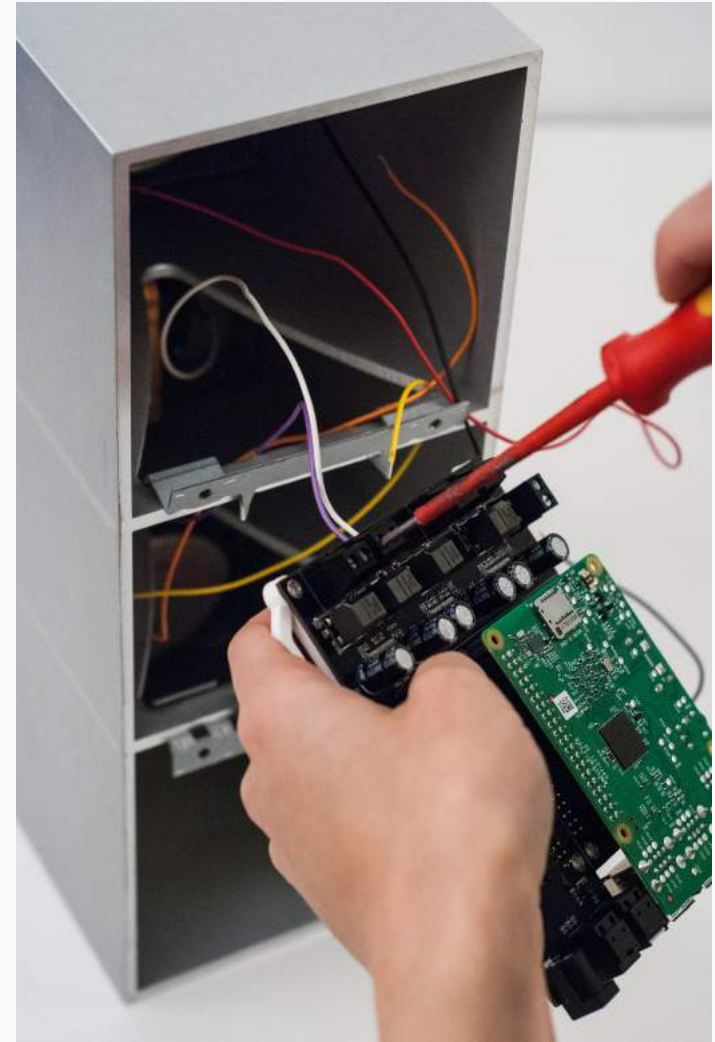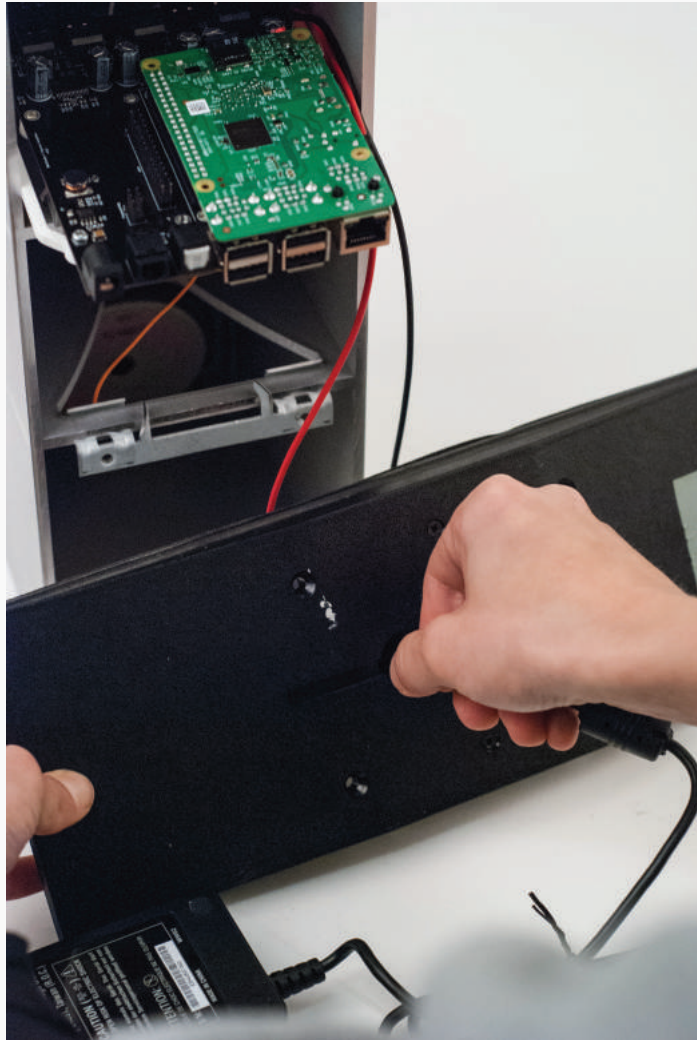

Fit in the cut wires into the Amplifier. For details check the illustration on the next page.

AMPLIFIER OUTPUTS

WIRES
FROM POWER
CONNECTOR

—

+

+ —

TOP
WOOFER

+ —

BOTTOM
WOOFER

— +

TWEETER

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
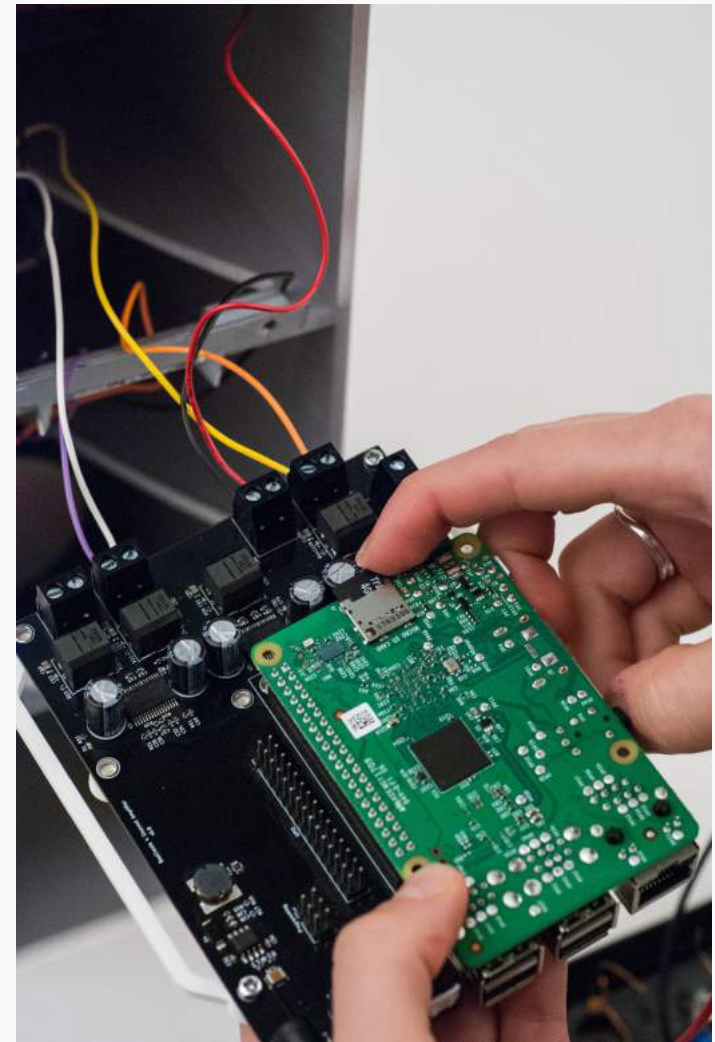Raspberry Pi.

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

Now prepare the SD card, by downloading its relevant software:

www.hifiberry.com/build/documentation/beocreate/beocreate-how-to-start/

Insert the SD card into the Raspberry Pi.

Reinsert the dampening material and place the electronics on the top compartment of the speaker.

Screw on the back plate.

ENJOY

Your speaker is now physically upcycled.

You can find the software installation here:

www.bang-olufsen.com/recreate/setup/