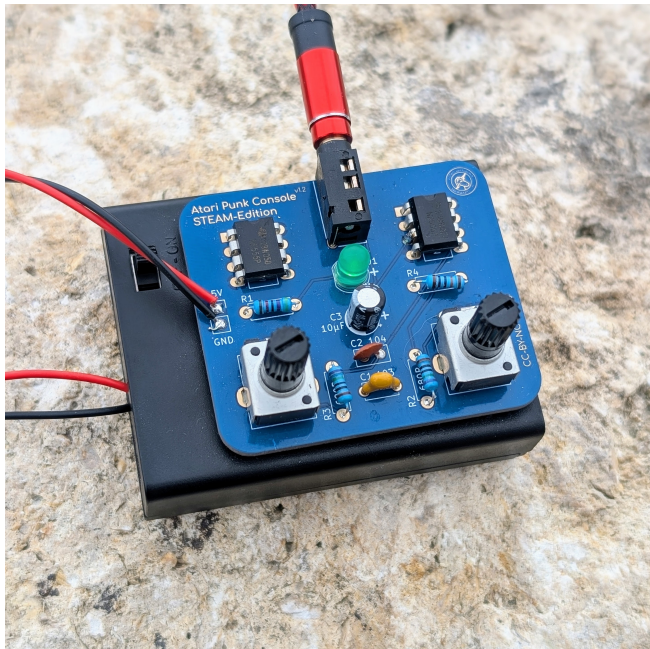


Atari Punk Console - STEAM-Edition



Quantity	Designation	Description	Label/Color Code
2	RV1-RV2	Potentiometer 500 k Ω	
1	C1	Ceramic capacitor 10 nF	103
1	C2	Ceramic capacitor 100 nF	104
1	C3	Electrolytic capacitor 10 μ F	
1	U1-U2	NE555D	
1	D1	Green LED 5 mm	
1	Headphone jack		
1	4xAAA battery holder		
1	R1	Resistor 47 k Ω	YE BK RE BR
2	R2,R3	Resistor 750 Ω	VI GR BK BK BR
1	R4	Resistor 100 k Ω	BR BK BK OR BR
1	Atari Punk Console circuit board (PCB)		
1	Atari Punk Console circuit board (PCB)		

Difficulty: ●●○○○ Build-Time: 60 – 90 Minutes

Manual v1.2 CC BY-SA 4.0 Binary Kitchen e.V.

Board v1.2 CC BY-NC-SA 4.0 Timo Schindler @ blinkyparts

Farblegende: SI = silber; GO = gold; BK = schwarz; BR = braun; RE = rot; OR = orange; YE = gelb; GR = grün; BL = blau; VI = violett; GR = grau; WH = weiß

Safety Information

- ATTENTION: Not suitable for children under 3 years, choking hazard due to small parts that may be swallowed.
- We recommend: Supervision of the assembly and soldering process by an adult.
- Keep these operating instructions in a safe place for later use! It contains important information.
- If the battery is empty, replace it only with a new battery with the same values.
- When soldering, the soldering iron, the solder and also the components being soldered become very hot.
- Always wear safety glasses when soldering and assembling the kit.
- Always use a fire proof soldering pad when soldering! This prevents the components from slipping away.
- To keep the soldering iron safe during assembly, always use a suitable soldering stand.
- The kit is designed for battery operation only.
- CAUTION: Never connect the kit to 230 V mains voltage! There is an absolute danger to life!
- Please take the device to appropriately certified disposal companies at the end of its service life. This is good for the environment and ensures correct disposal.
- Subject to changes and errors.

Disposal

This appliance is labelled in accordance with the European Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). The directive provides the legal framework for the take-back and recycling of waste equipment throughout the EU.

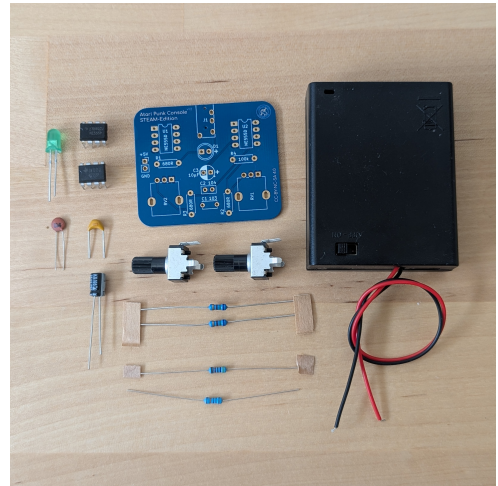
- **packaging:** The packaging is made of environmentally friendly materials and is therefore recyclable. Dispose of packaging materials that are no longer needed accordingly.
- **waste equipment:** Old appliances often still contain valuable materials. Therefore, hand in your old appliance to your retailer or a recycling centre for reuse. Please ask your retailer or your local authority for the current disposal routes.

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93057 Regensburg
GERMANY



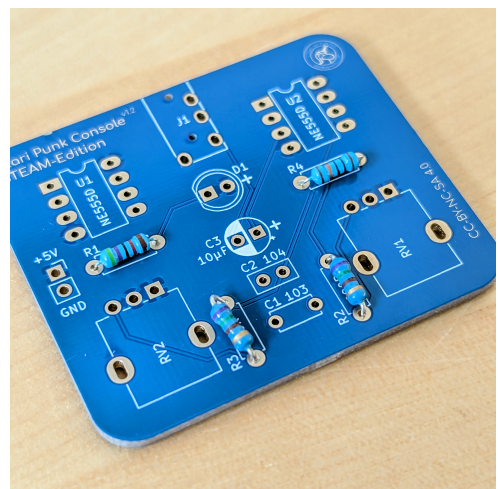
Step 1

- Check your components to make sure they're all there.
- Sometimes small parts get hidden in the bag. Take a close look here.
- The colors or the number of bands on the resistors may vary. We use components from various manufacturers.
- Tip: These are exclusively THT (through-hole) components. Insert the components through the top of the circuit board and solder them in place from the other side. You can gently bend the legs on the back as you insert them, so the components stay in place and are easier to solder.



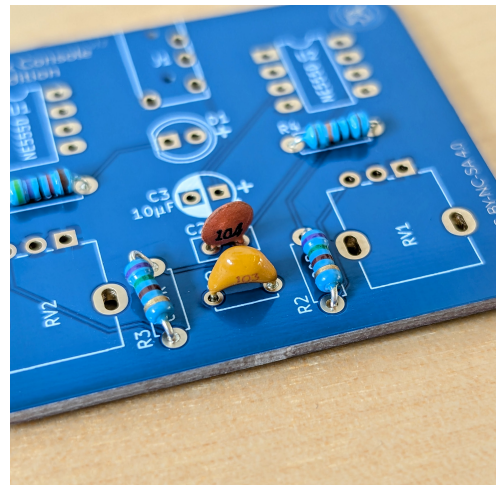
Step 2

- First, solder on the resistors R1 (YE BK RE BR), R2+R3 (VI GR BK BK BR), and R4 (BR BK BK OR BR). The color code shows you the resistance values. Alternatively, you can measure the resistance values with a multimeter.
- Trim the excess wire on the back.
- Caution: When cutting, the leads tend to fly around and can get into your eyes. Wear safety goggles!



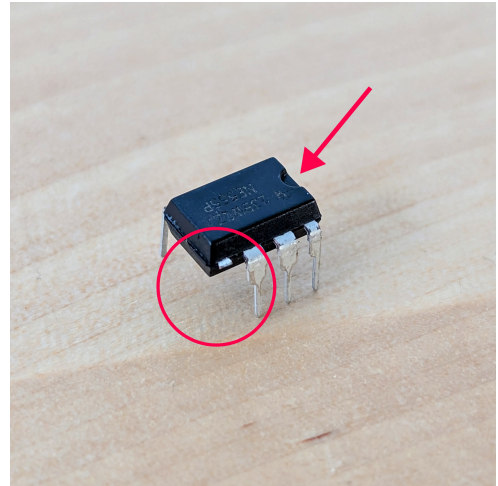
Step 3

- Now solder on the ceramic capacitors C1 (103) and C2 (104). Ceramic capacitors are non-polar. You can simply insert them like resistors and solder them from the back.
- After soldering, trim the excess wires on the back.



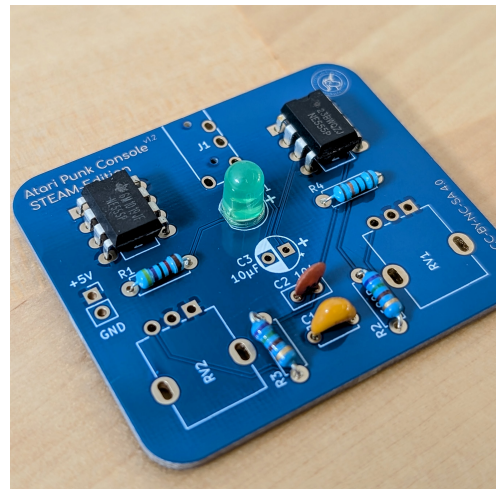
Step 4

- Now take the two NE555.
- There is a small tab on one side of the NE555. Align the tab so that it points away from you.
- Now cut off the fourth leg from the top on the right side (the leg closest to you).
- Note: In the following images, the legs haven't been cut off yet—you can ignore that.



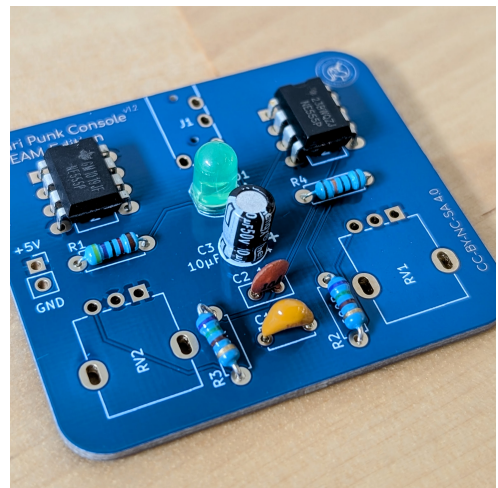
Step 5

- Now solder the LED D1 in place.
- Note: LEDs are directional. The long leg is the '+' side. A hole on the circuit board is also marked with a plus sign. Insert the long leg through the hole on the circuit board marked with a +.
- After soldering, trim the excess wires on the back.



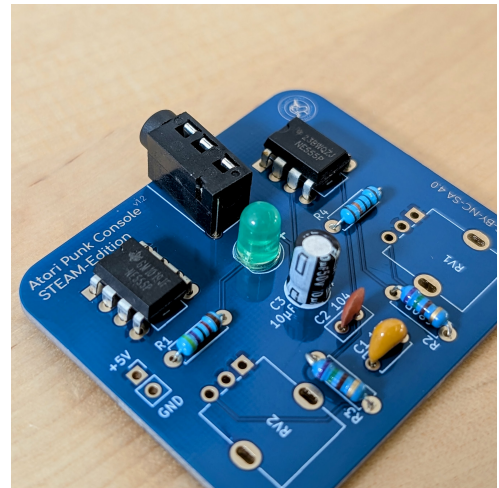
Step 6

- Now solder the electrolytic capacitor C3 in place.
- Note: This capacitor has a polarity. The long lead is the '+' side. A hole on the circuit board is also marked with a plus sign. Insert the long leg through the hole on the circuit board marked with a +.
- After soldering, trim off the excess wires on the back.



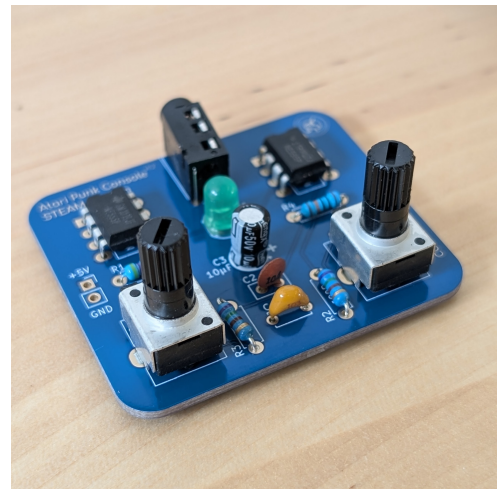
Step 7

- a) Solder on the headphone jack.
- b) The headphone jack (i.e., the hole for plugging in) must face outward (away from the circuit board). There are several holes in the circuit board. The headphone jack fits perfectly into one of them.
- c) Then solder all four legs securely in place.



Step 8

- a) Take the potentiometers RV1 and RV2 and insert them into the circuit board. You may need to bend individual legs slightly to fit them into the circuit board.
- b) Once the potentiometers are securely inserted into the circuit board, solder 5 connections from the back of each one. Make sure that no solder bridges form.
- c) Caution: If you want to cut off the protruding legs here, you must use a very good pair of side cutters. Otherwise, you'll break your side cutters.



Step 9

- a) Take the battery holder. Cut the black and red wires to about 4–5 cm and strip about 5 mm of insulation from the wires.
- b) Then tin the ends with solder.
- c) Next, solder the black wire to GND and the red wire to +5V.



Step 10

- a) You're done! Insert the batteries. You can now connect your synthesizer to a playback device and generate cool Atari sounds.
- b) Experiment with all the different sounds you can get from the simple NE555.
- c) You can read more about exactly what's happening technically at wiki.blinkyparts.com.

