

Deftaudio PCM Custom Card for Korg DDD-1/DDD-5

Assembly guide

Github repository with software and documentation

https://github.com/Deftaudio/DDD1_DDD5_custom_PCM_card

User Manual

https://github.com/Deftaudio/DDD1_DDD5_custom_PCM_card/blob/main/Documentation/KorgPCM_Card_Manual.pdf

Video Tutorial

<https://youtu.be/BM5A2fx6TgM>

BOM

Component	Location	Description	Part number	Qty
PCB:				
		PicoROM Memory Card PCB		1
		Inner layer PCB type 1		2
		Inner layer PCB type 2		2
		Inner layer acrylic panel		2
		Top layer PCB		1
ICs:				
	U1	PicoROM assembled module	PicoROM	1
Resistors:				
	R1-R3	Resistor	4.7 kOhm	3
Switches, housing:				
	SW1	DIP switch 3-pos		1
		40-pin 2.54mm header strip	to be cut in pieces	1
		M3 3mm screw		4
		M3 3mm nut		4

General Notes:

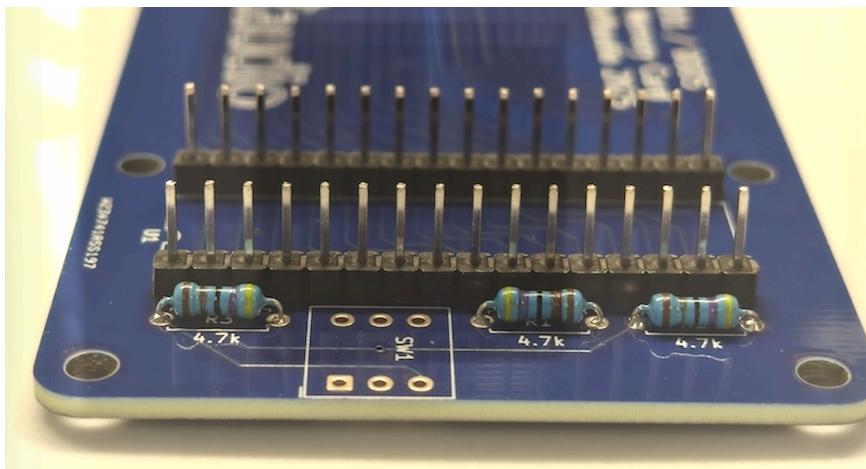
- Moderate soldering skills required.
- The DIY kit includes only through hole parts. All SMD parts are pre-assembled on PicoROM.
- Be extremely accurate while soldering PicoROM. There is a high risk to short SMD parts, if the header is not soldered carefully. Don't rush, take your time.
- Included PicoROM comes pre-programmed with PicoROM firmware, "PicoROM" name and the test sound bank.
- Assembly time is under 30 minutes.

Assembly Steps:

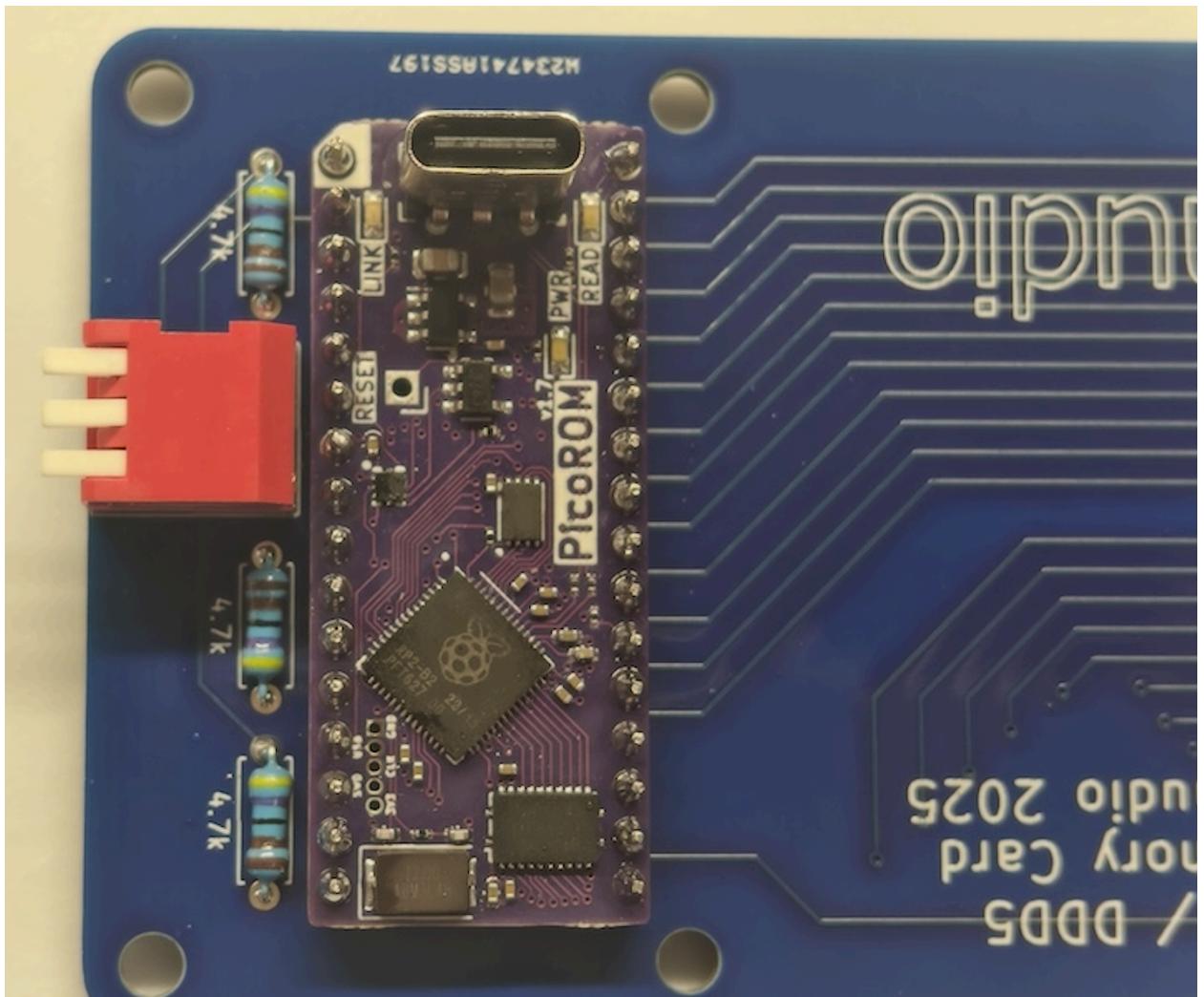
1. Start populating the main board with resistors first. They are the same value 4.7k, exact position and orientation don't matter.



2. Split 40pin header strip into two pieces with 16 pins each. Solder shorter pins on PCB and leave longer pins up. This way you don't need to cut them later.

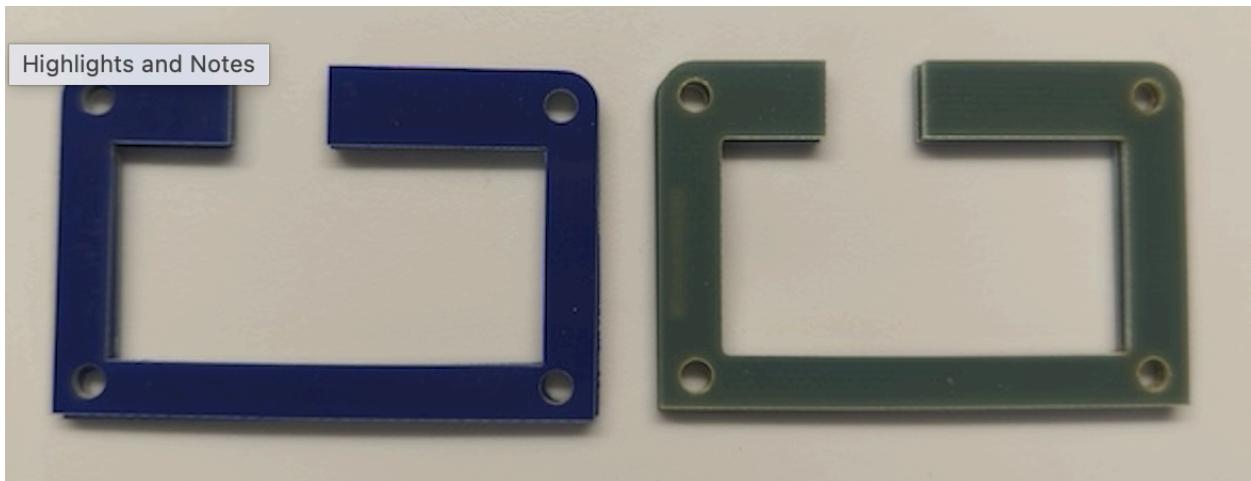


3. Solder PicoROM module and DIP switch. Hold it flat to the PCB to leave no gap. Generally, you should solder PicoROM first, followed by the DIP switch. Otherwise, access to some PicoROM pins is limited. As said earlier, be very careful to avoid shorting PicoROM parts which are next to pins. Watch the orientation!

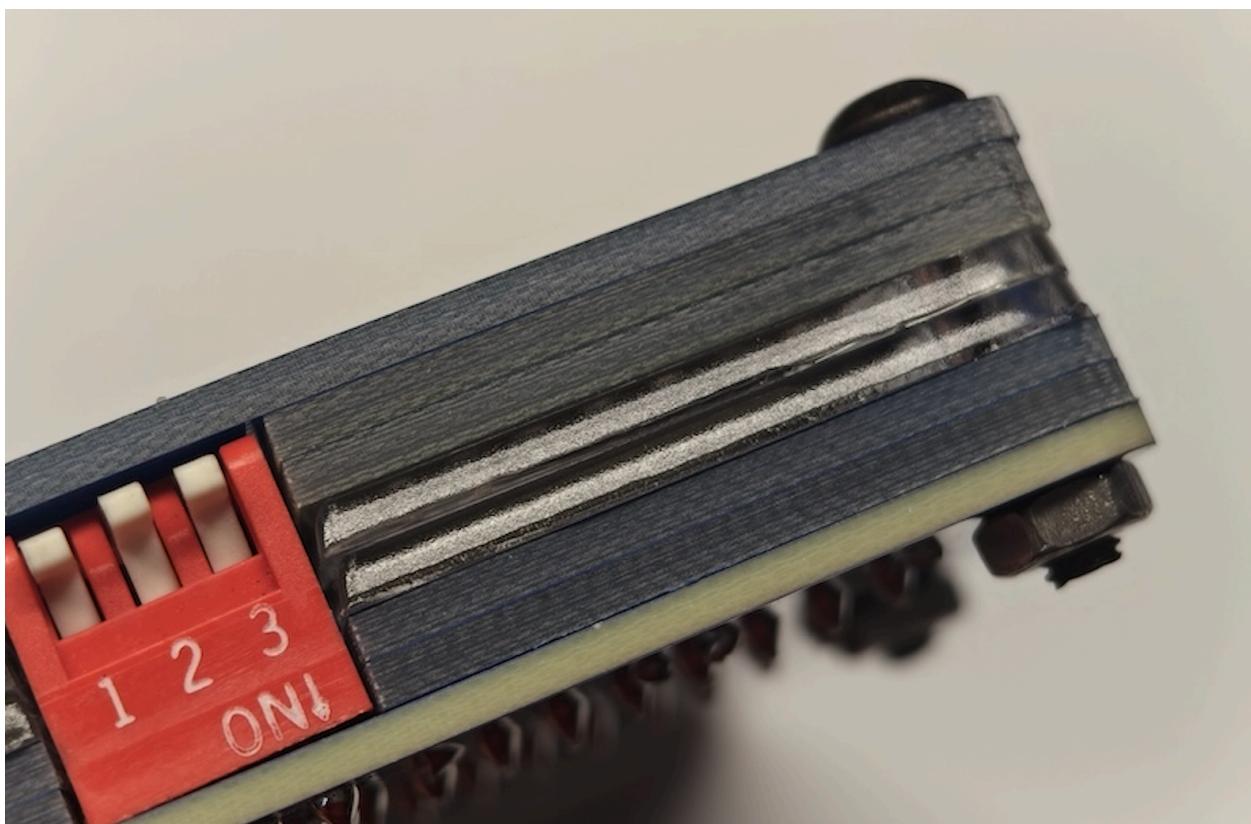


4. Assemble the case for PicoROM. You need two layers of Type 1 PCB, followed by two layers of acrylic, two layers of Type 2 PCB. Finally, add the top lid PCB. Please, maintain this specific order. It allows SMD LEDs on PicoROM to light through the acrylic layer, as it's on the right height to align with it. To identify PCB type, here is a picture below - Type 1 is on the left (both sides are blue), Type 2 is on the right (one side is blue)

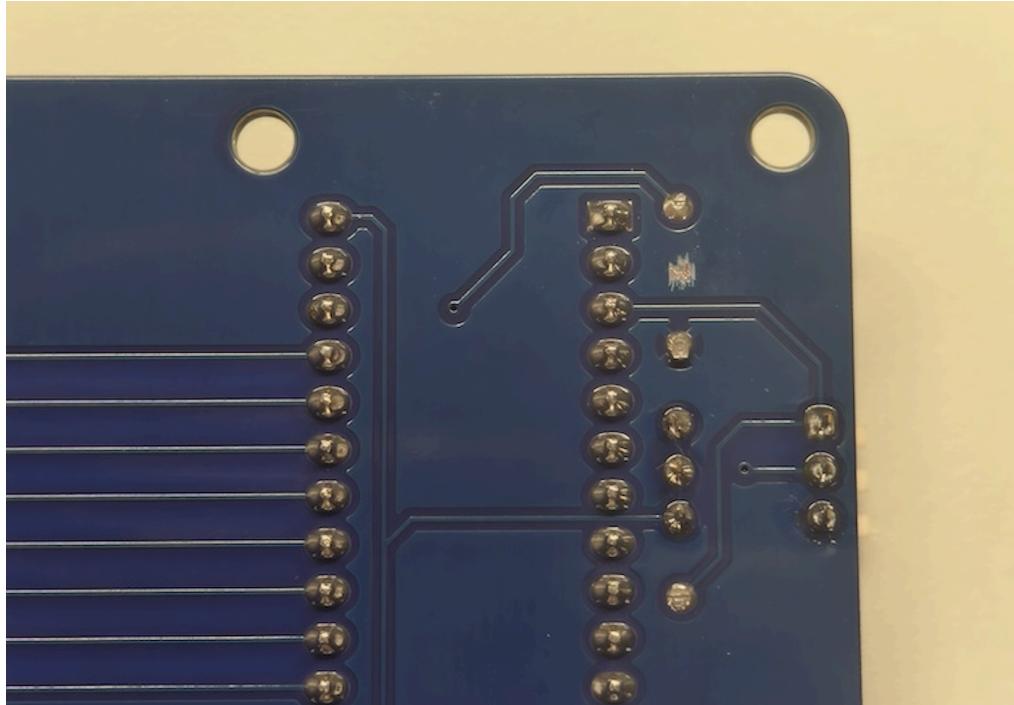
Highlights and Notes



5. Add screw and nuts. Here is how the assembled case should look.



6. **ERRATA.** Rev1.0 of the main PCB has a missing ground trace. This link should be added to prevent one of the switch pins floating.
- Scratch a piece of solder mask between R3 pins to the ground layer as shown in a picture below



- Use a piece of resistor cut leg and solder it between a scratched pad and lower R3 pin

