

MEGA SRAM SCC

Author, photos and french text by Jipe (Jean-Pierre Dubois)

Translated to english by HansO, 2008

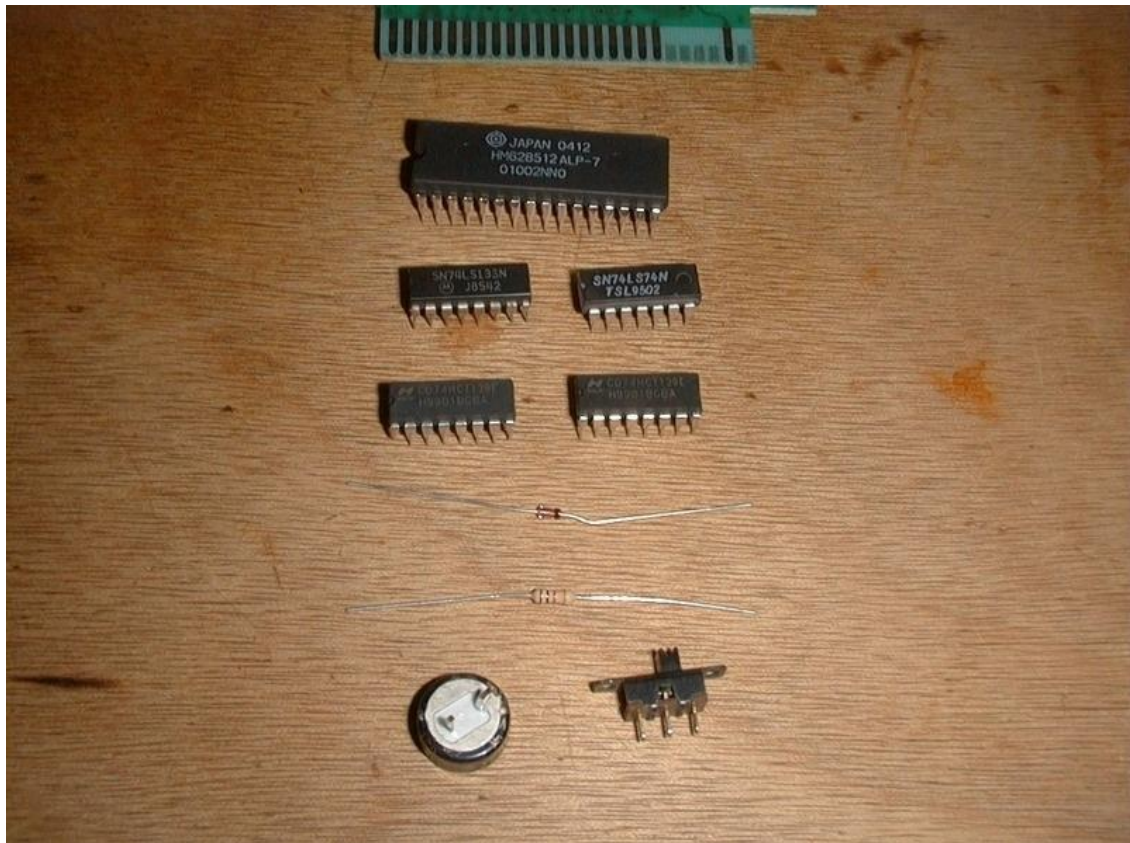
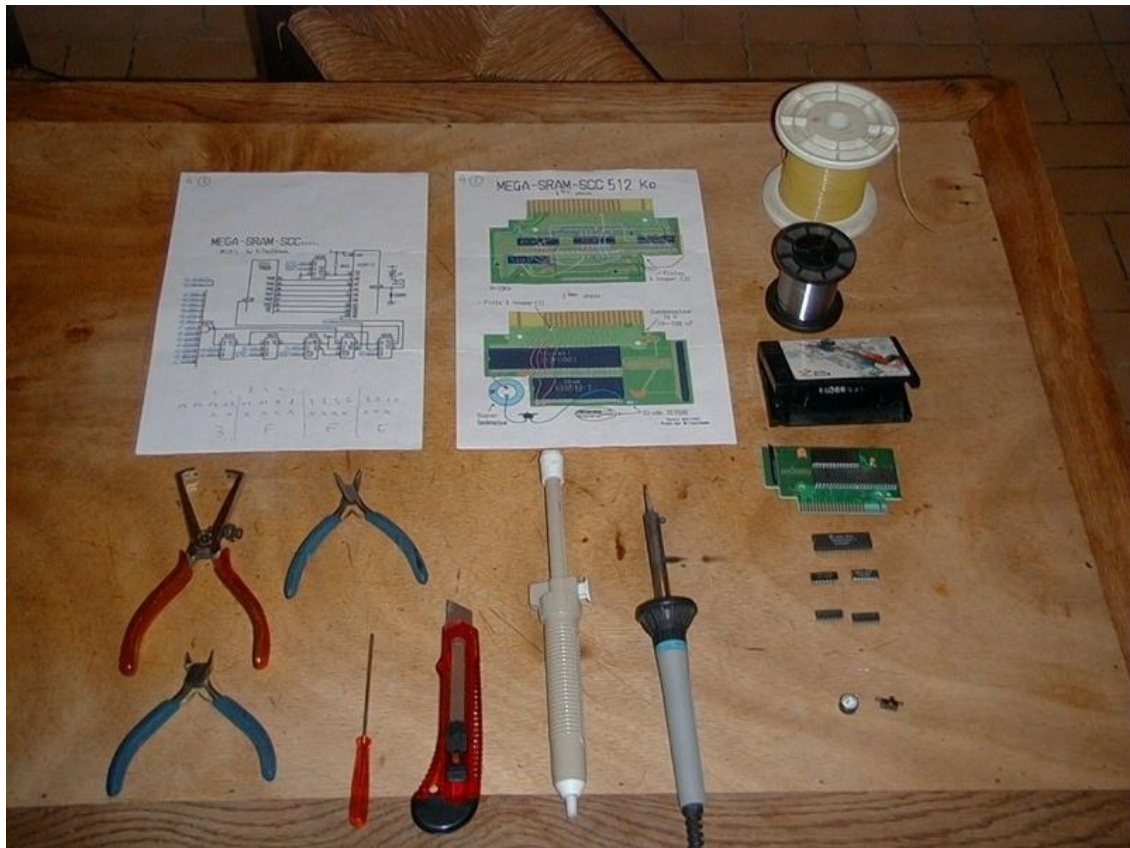
Original design by K. Tsujikowo.

Magician Jipe presents here the description how to transform a SCC based cartridge ((Nemesis 2, F-1 Spirit, etc) into a SRAM based one.

With SRAM SCC you can load games with the original music played by the SCC, Sound Chip Custom.

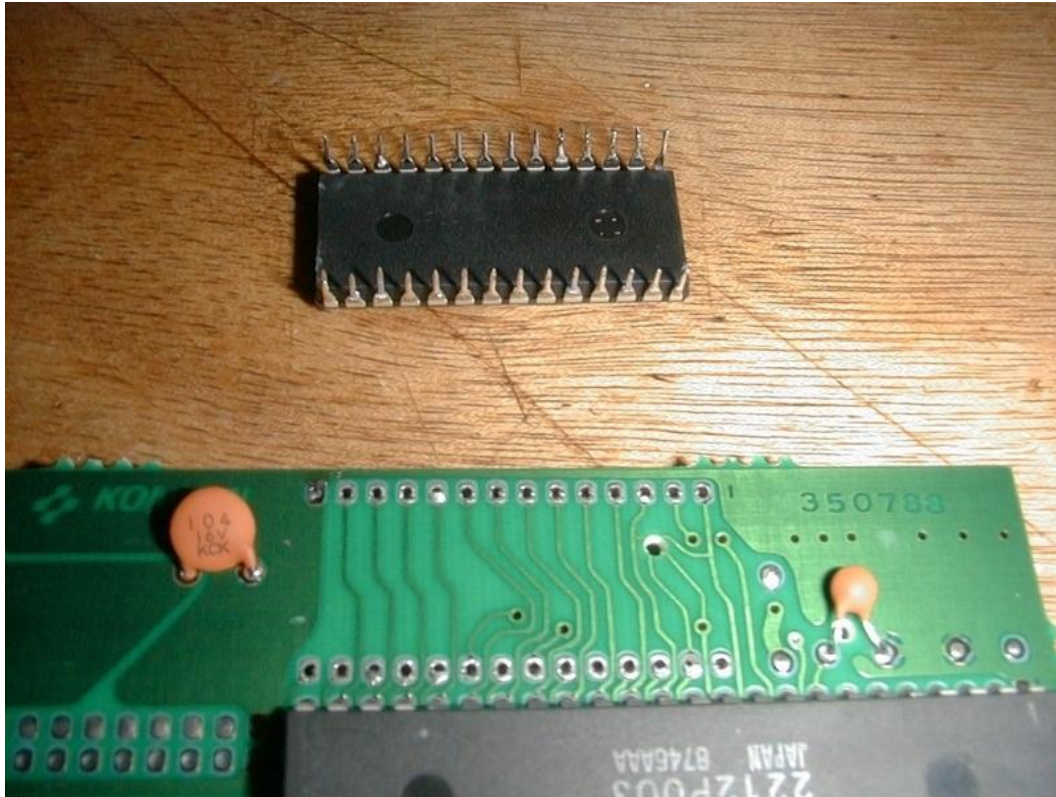
Material list

- 1 x SCC cartridge(Nemesis 2, F-1 Spirit, etc)
- 1 x solder wire
- 1 x flat screwdriver
- 1 x Cutter
- 1 x drilling machine for a 5/6 mm hole
- 2 x thin electrical wire
- 1 x SRAM 628512, 8 x 512 Kb
- 2 x 74LS139 or HC
- 1 x 74LS74 or HC
- 1 x 74LS133 or HC
- 1 x Diode IN4148 or equivalent
- 1 x Resistor 10 K?
- 1 x Goldcap Capacitor 1F or 0.47F or 0.33F (the capacity determines the time the data will be saved)
- 1 x slider switch

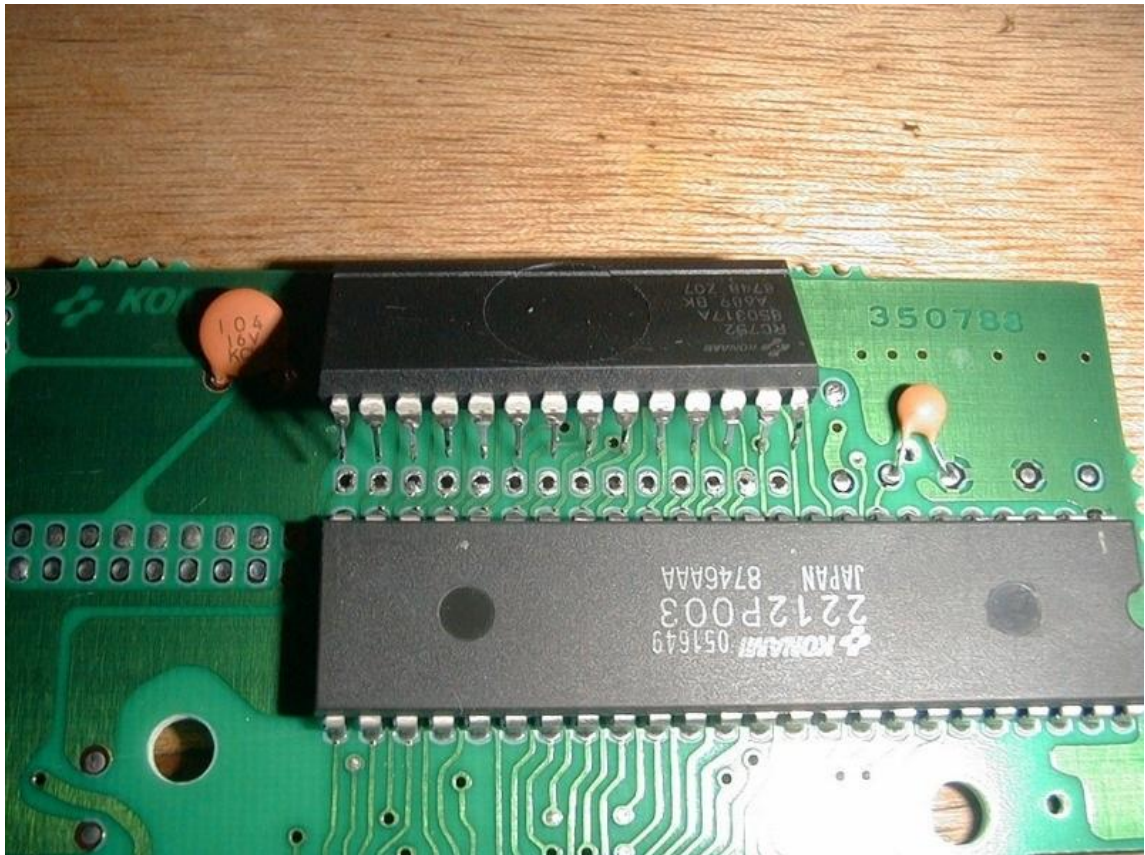
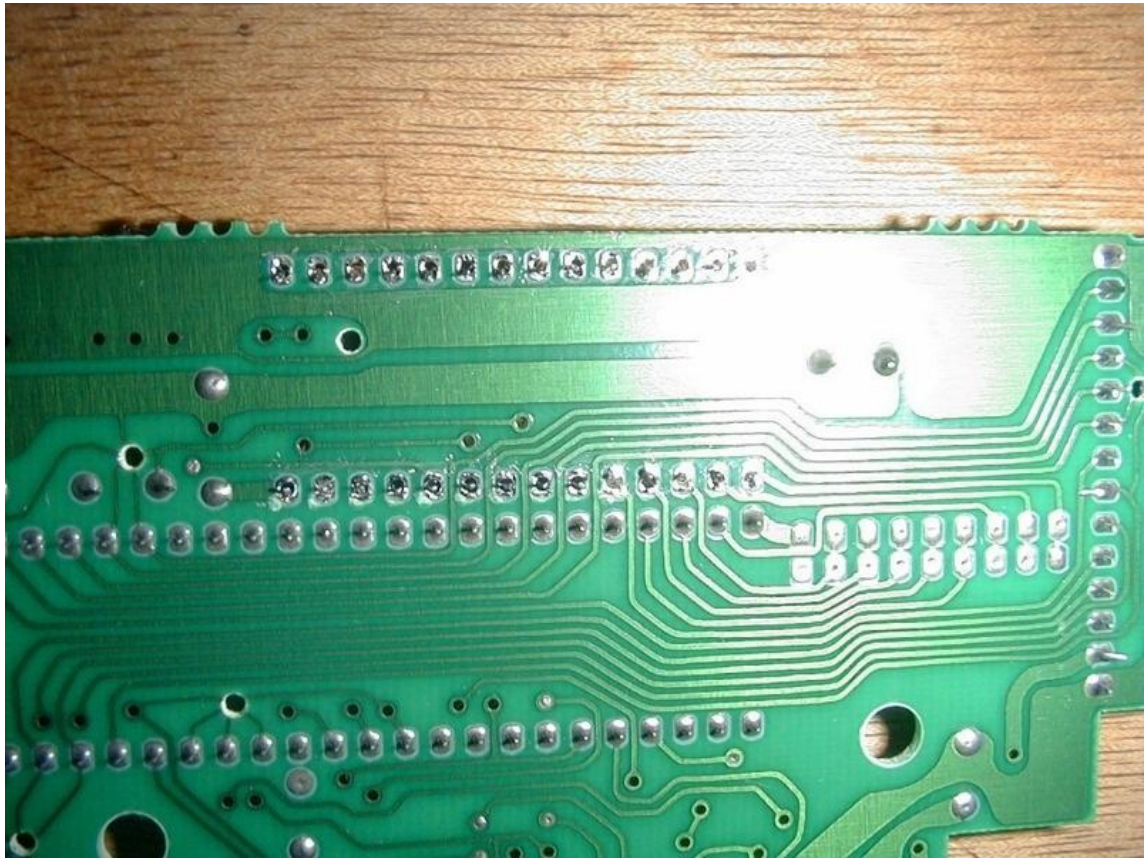


Step 1 – Modify the cartridge

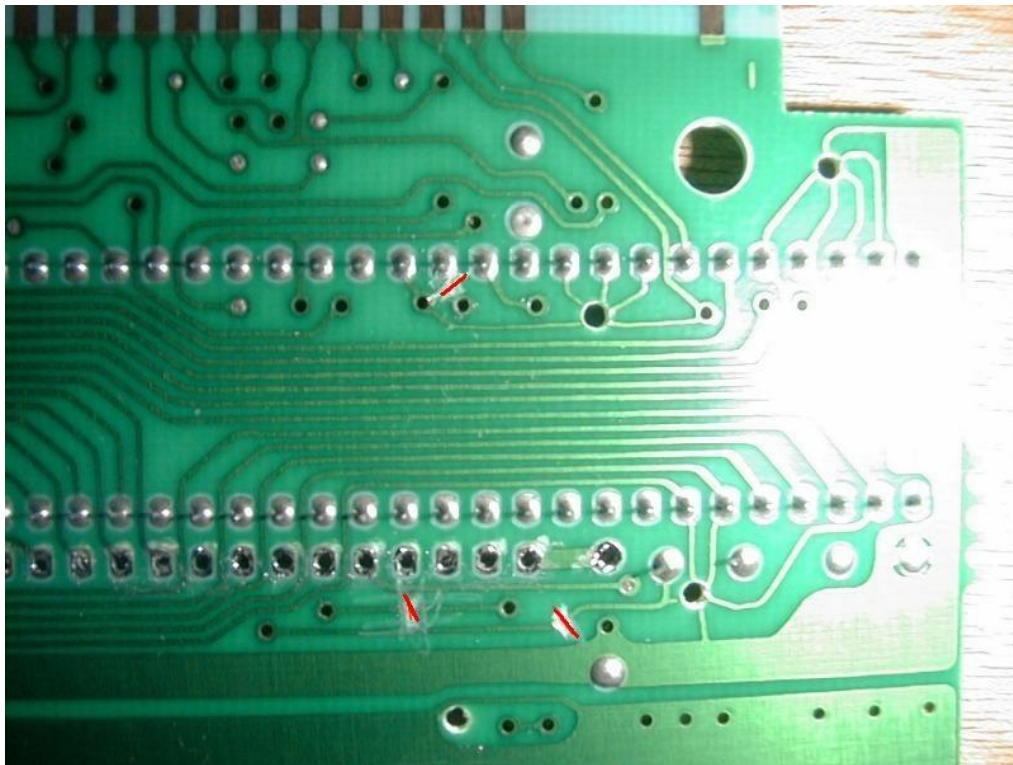
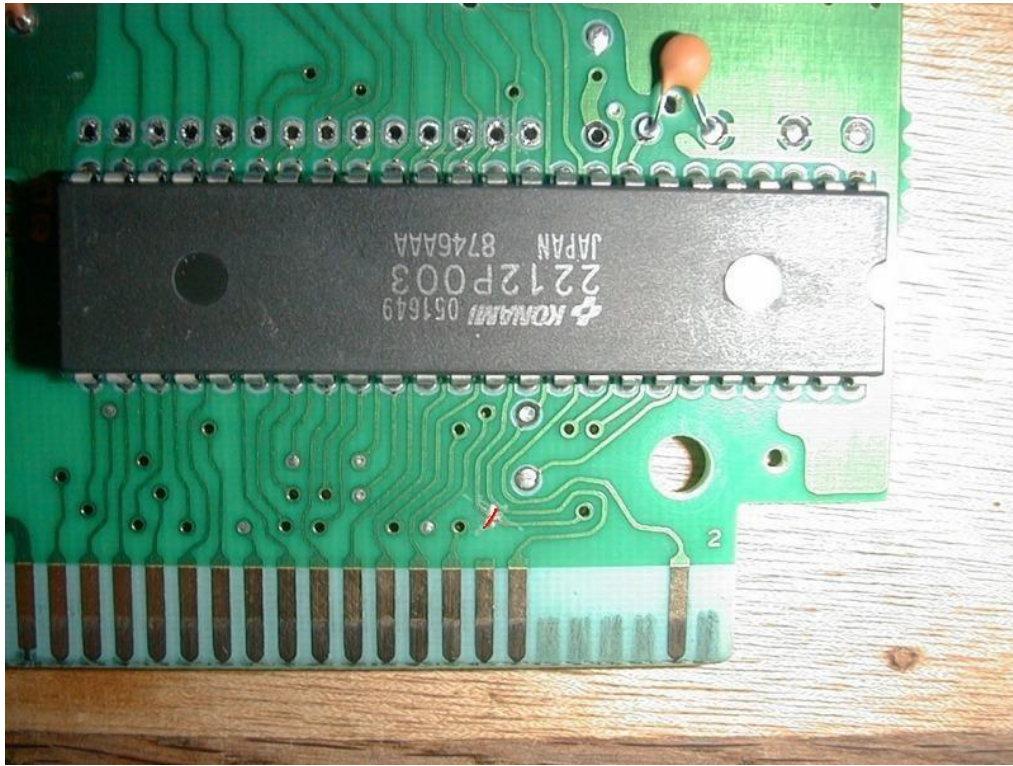
First open the cartridge. See the article on Café MSX how to do that.
Next desolder the ROM IC, without damaging the traces on the board.
Then cut out the corner of the PCB to make room for the Goldcap.



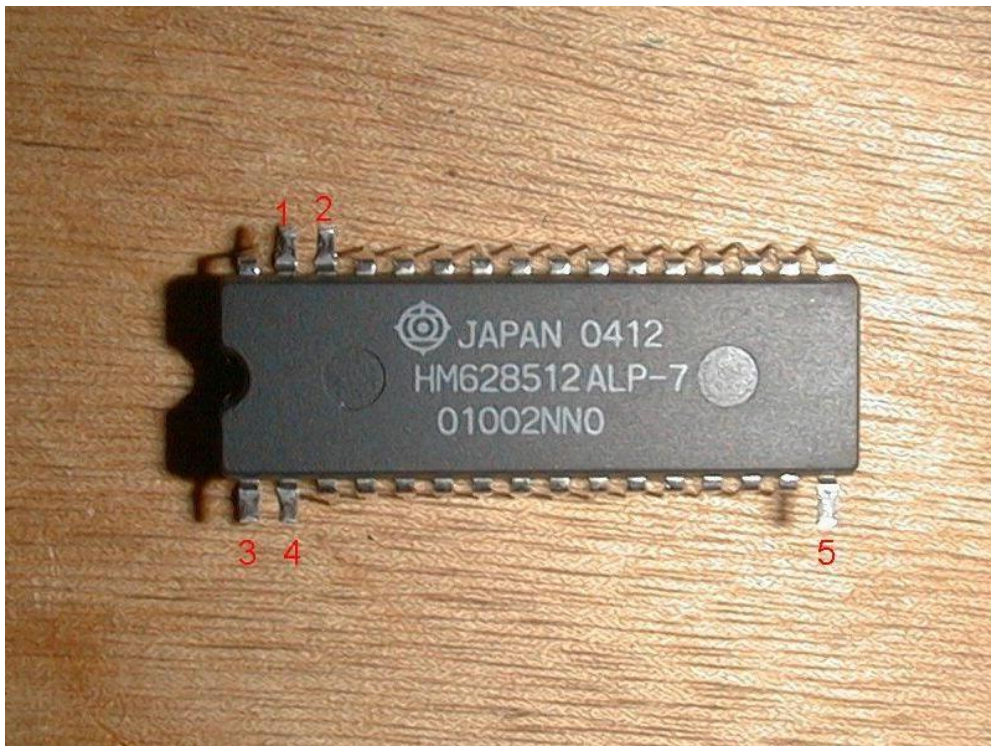
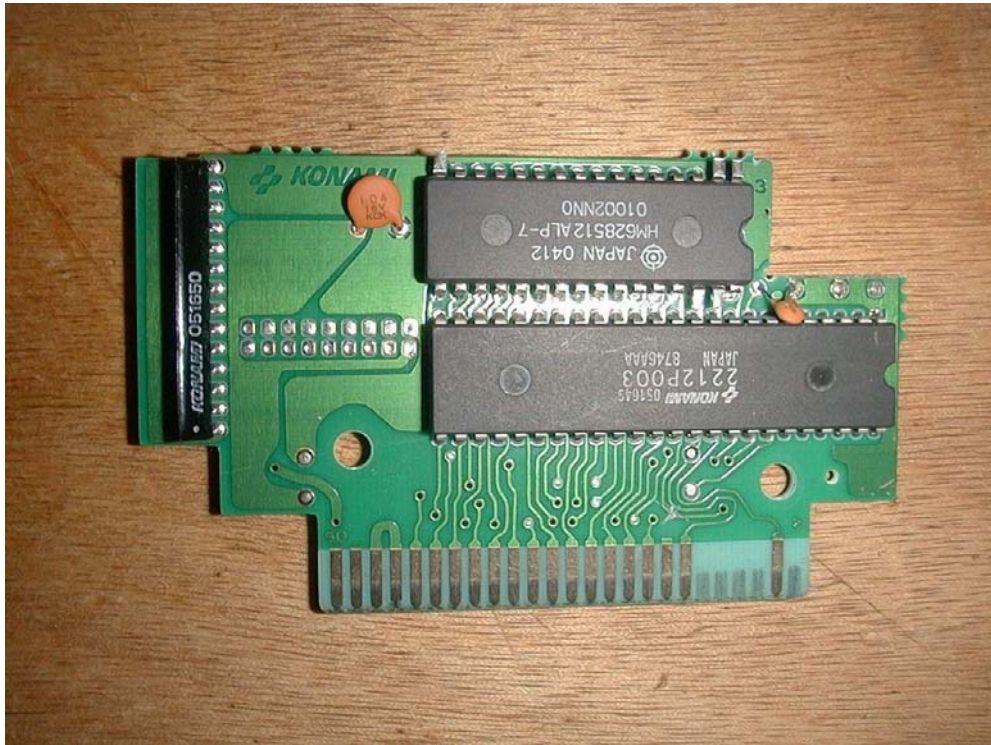




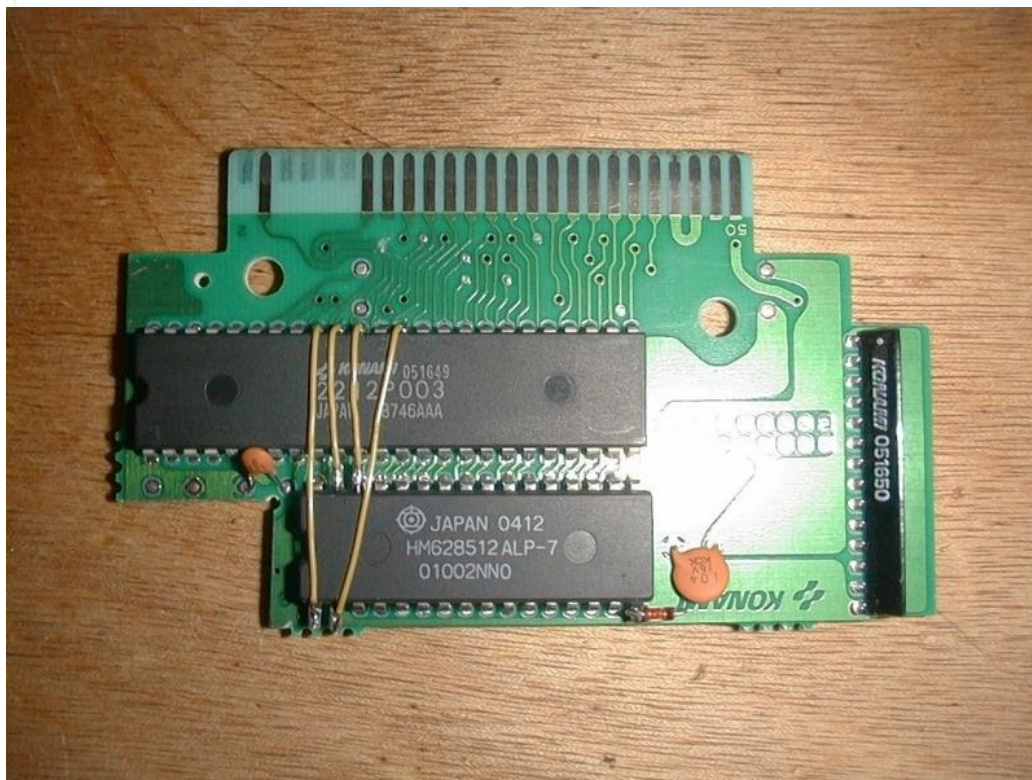
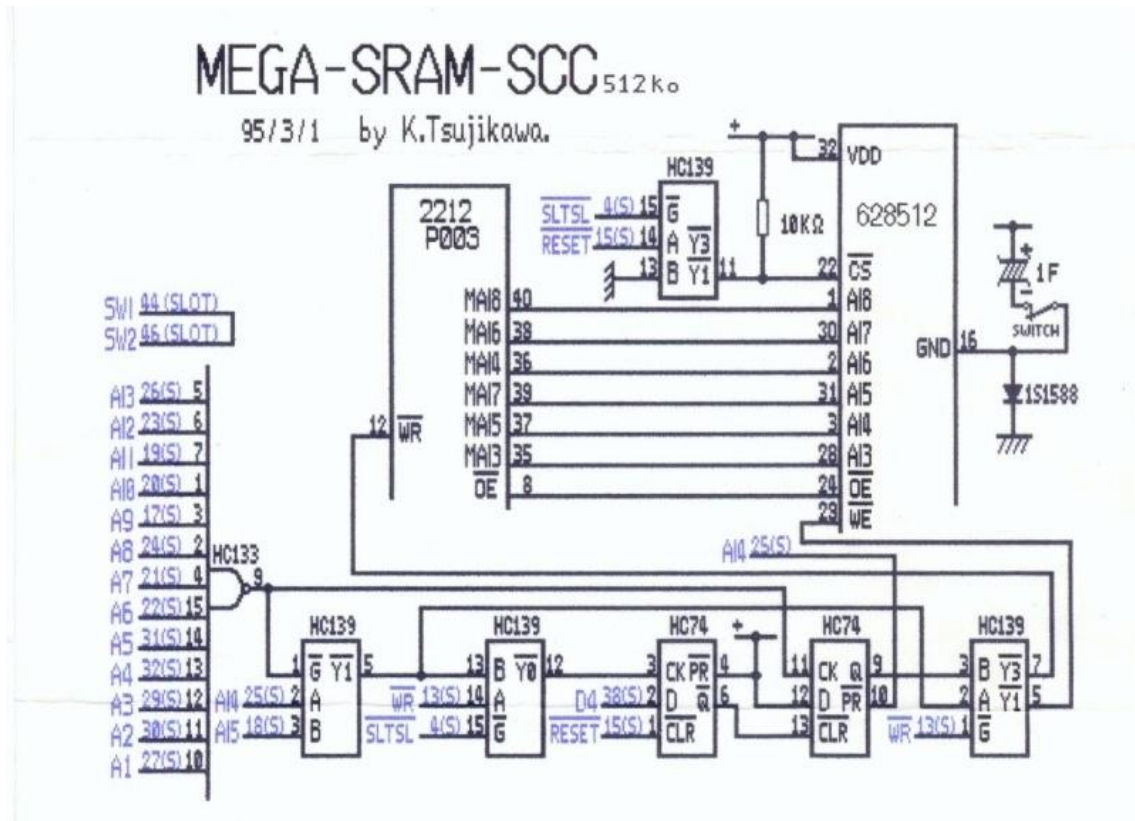
Now, take a cutter in order to cut exactly 4 tracks exactly as shows in red marks on the photographs below.

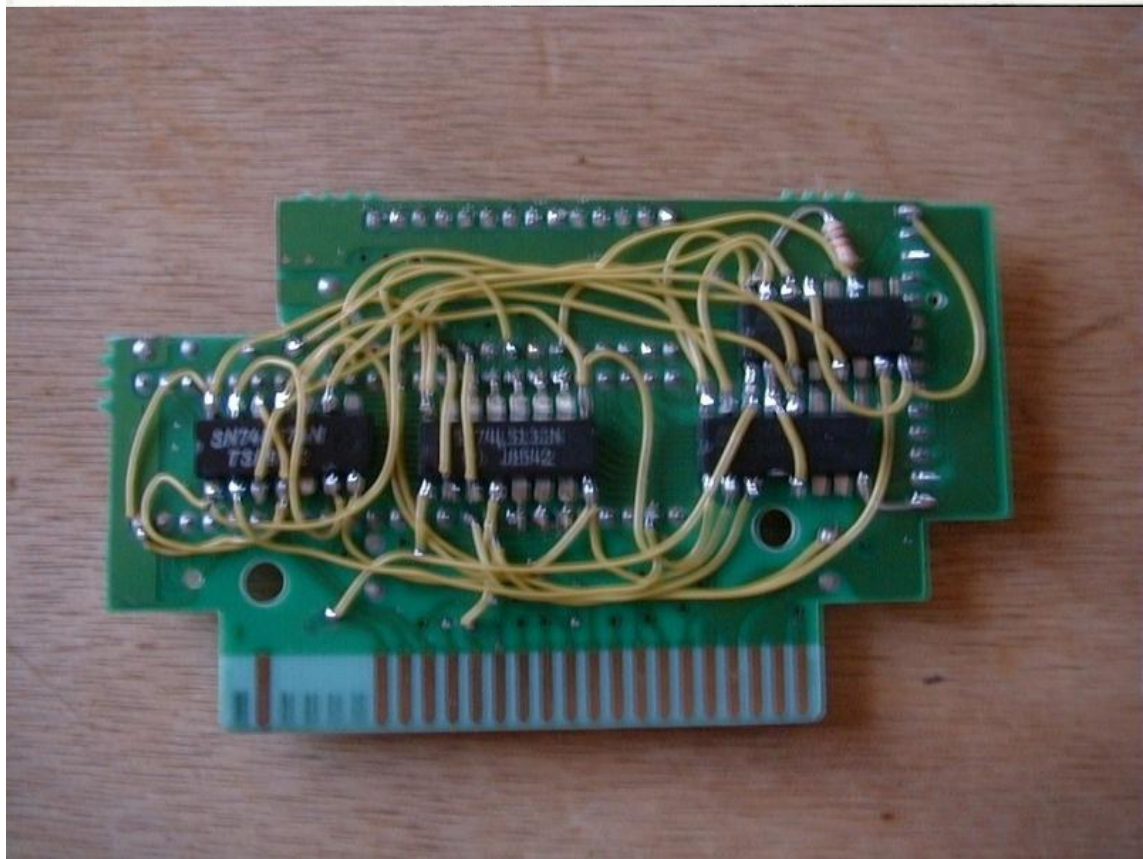
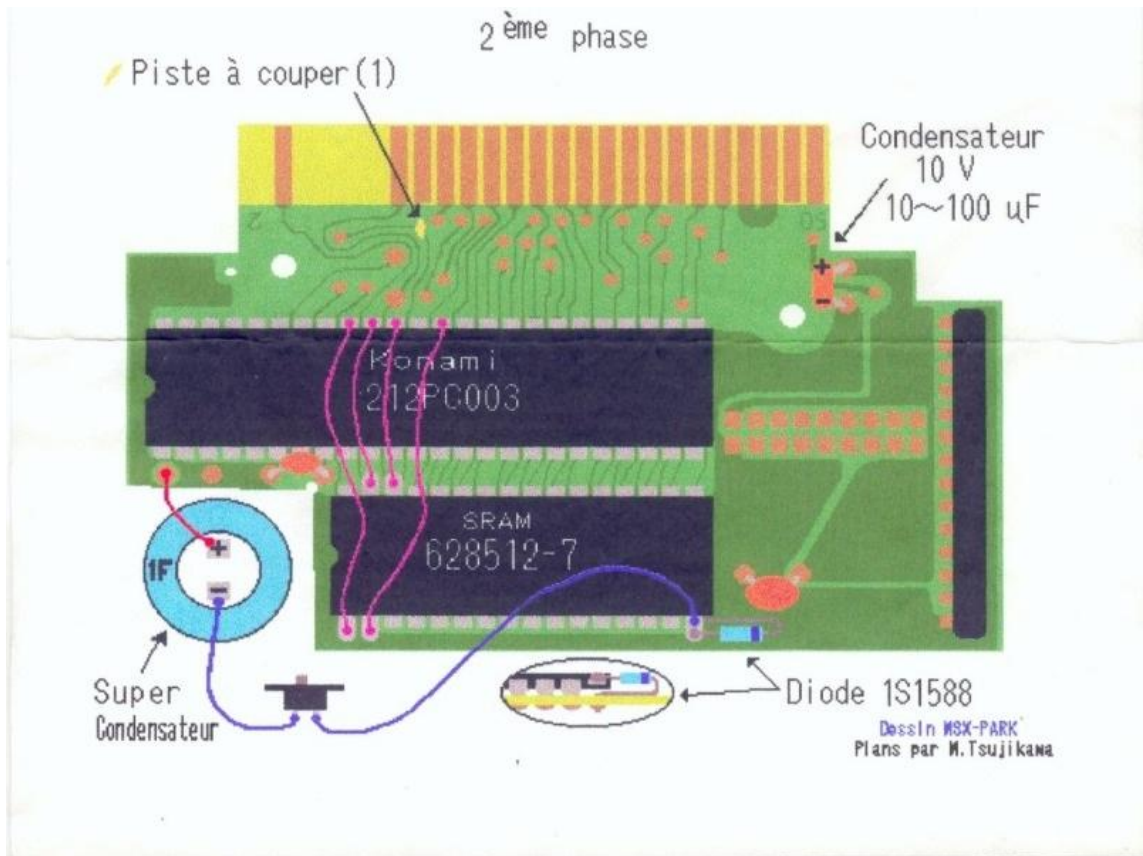


Then, prepare the SRAM by raising the 5 pins indicated. Take your soldering iron and solder tin in order to fix it at the place of the ROM as shows in the next photographs.



Now the wiring is next . The photograph below is not very clear, but in any event read the documentation how to perform this stage. It will be necessary to work carefully and to attach each wire without mistakes.

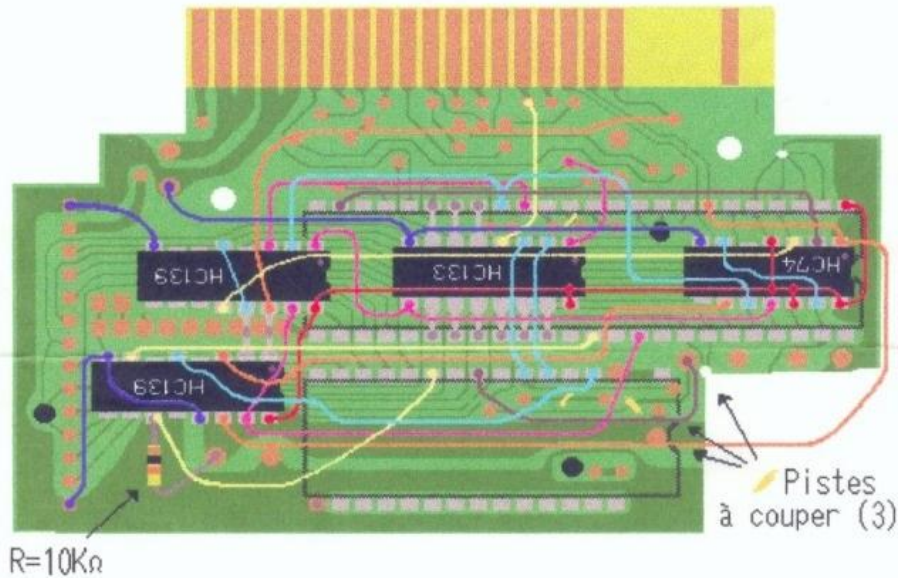




A (2)

MEGA-SRAM-SCC 512 Ko

1^{ère} phase



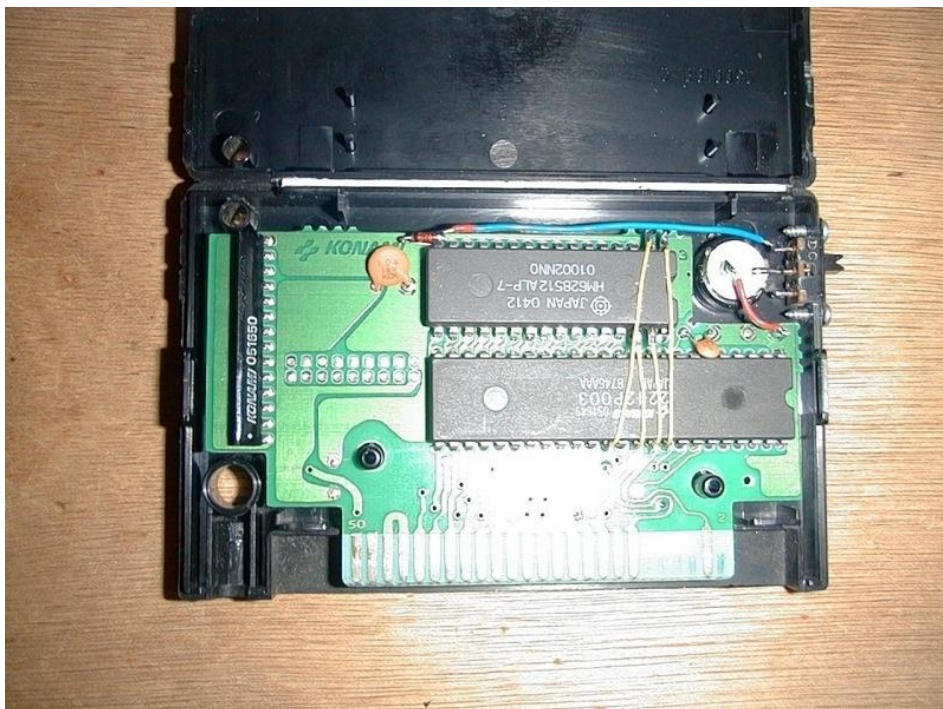
Step 2 First test

Take a deep breath and start to check the operation of your assembly. Put the cartridge in your microcomputer, in Panasonic FS-A1 WP for example, then turn on your machine. Load a game with MGLOAD.COM and normally, this should work. If not, check the steps from the beginning..



Step 3 Final assembly

You are almost at the end of your sorrows. Take your drill to dig a hole in the case for the switch. Drill two holes 5-6 mm in diameter to screw your 2 screws. We recommend to you not to use glue or such. We like clean and durable results. Then, install the capacitor and you can close again the case.



Step 4 Last test

The program MGLOAD.COM is to load files containing ROM cartridge images for MSX into the Mega SRAM. MGLOAD.COM and MGSAVE.COM, are running in MSX-DOS 1. MGLOAD2.COM is a program for MSX-DOS 2 with the ROM images on a CD-ROM. The usage of these programs is straightforward.

/SXX represents the number of the slot or cartridge port of your MSX. Slot 1 is in general on the top and slot 2 located at the back of the MSX. Some times, this information is shown on labels on the case of the computer. Once loaded, the ROM images remain in memory 2 to 3 weeks even if you do not use the cartridge. Obviously, to make that possible, you must have turned the switch so that the capacitor is supplying power to the SRAM.

```
B>MGLOAD
Usage: MGLOAD filename.meg /Sxx
      (xx : Mega-RAM slot address)

B>MGLOAD2
Usage: MGLOAD2 filename.meg /Sxx
      (xx : Mega-RAM slot address)

B>MGSAVE
MEGA-ROM/RAM saver ver 1.12
Copyright (c) by K.Tsujikawa.

Usage: MGSAVE filename.meg /Sxx [/Nyy]
      (xx : Mega-RAM slot address)
      (yy : Number of banks)
```