

# Installation of the FAMICOM I/O (Classic and No Cut)

**FIRST YOU NEED TO READ THE ORIGINAL INSTALLATION OF THE NESRGB FROM TIM WORTHINGTON AND NES I/O FROM BORTI (yes the Front Loader one) TO UNDERSTAND WHAT YOU ARE DOING**

Links:

<https://etim.net.au/nestrgb/installation-famicom/>  
[https://github.com/borti4938/NES\\_IGR\\_for\\_NESRGB/blob/master/NES-IO/NESIO\\_Installation.pdf](https://github.com/borti4938/NES_IGR_for_NESRGB/blob/master/NES-IO/NESIO_Installation.pdf)

**THIS IS EXPERIMENTAL, I CANNOT BE HOLD RESPONSIBLE FOR ANY DAMAGE CAUSED TO YOUR CONSOLE**

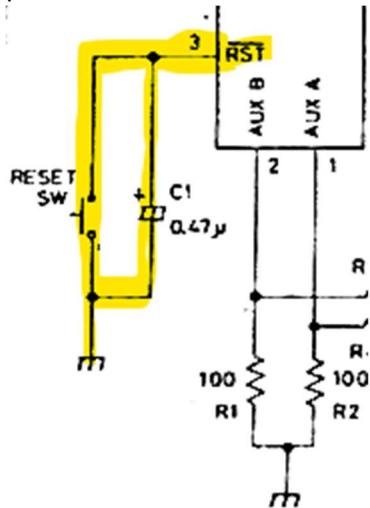
## 1) RGB/Video/Palette

Those are identical as a classic NESRGB+NES I/O installation. Check respective installation guides of each.

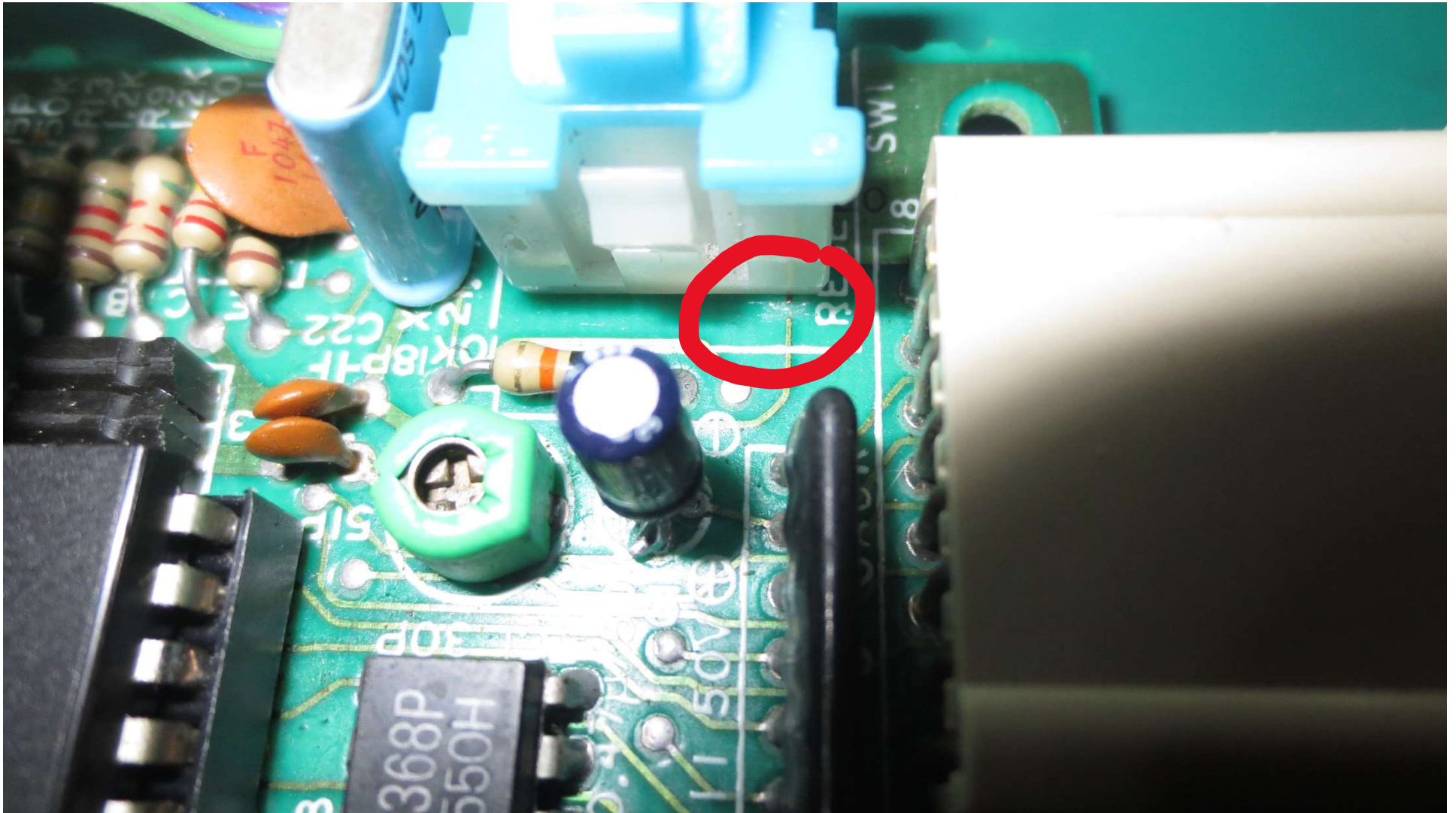
## 2) RESET

### a) Preparations

The reset is different in the OG Famicom from the NES Front Loader: there's no CIC and you cannot intercept the reset signal which is going straight to the CPU pin:



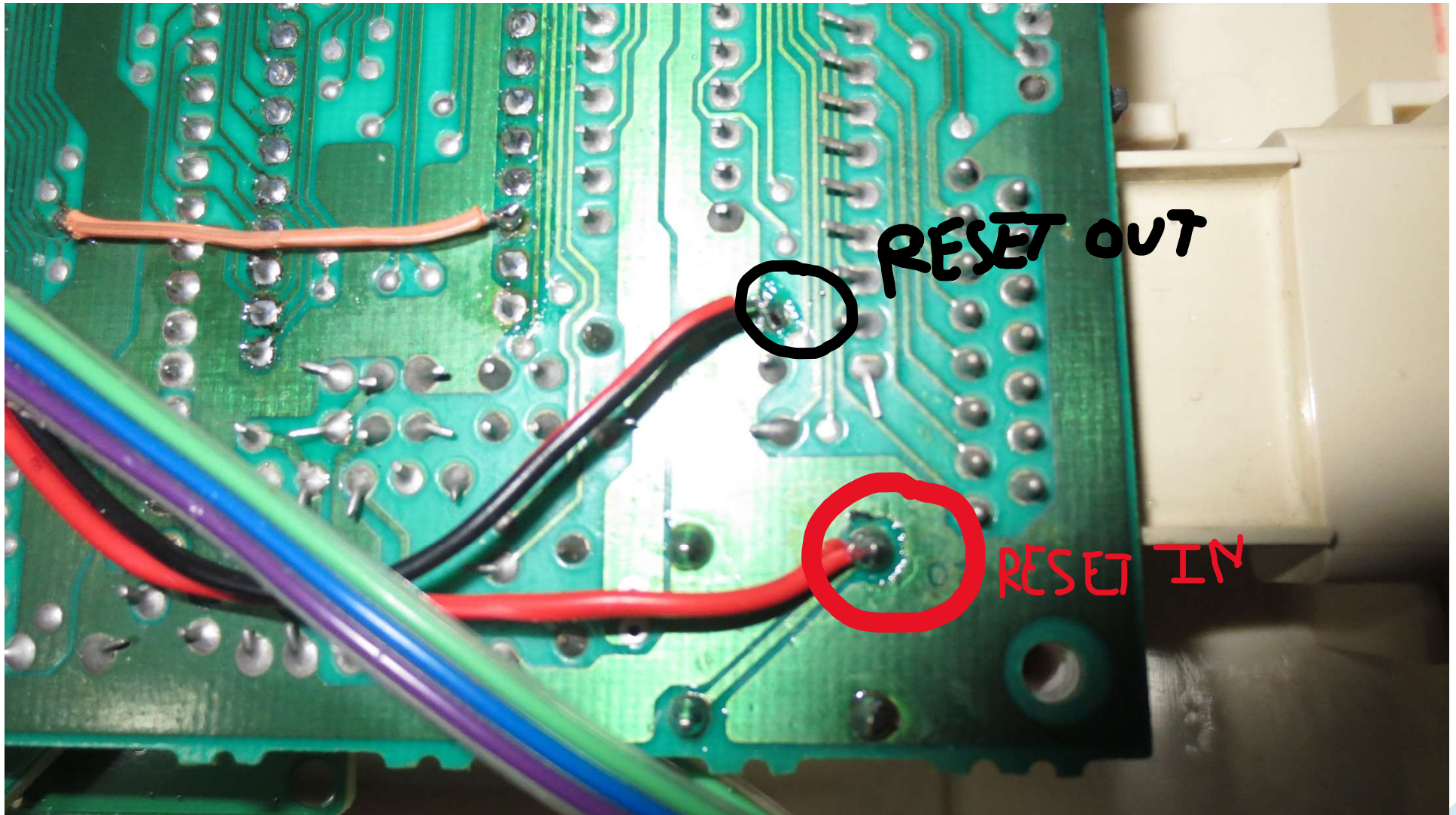
You need to intercept the signal and re-route the Famicom I/O BEFORE it goes the CPU. You can cut the trace close the reset switch:



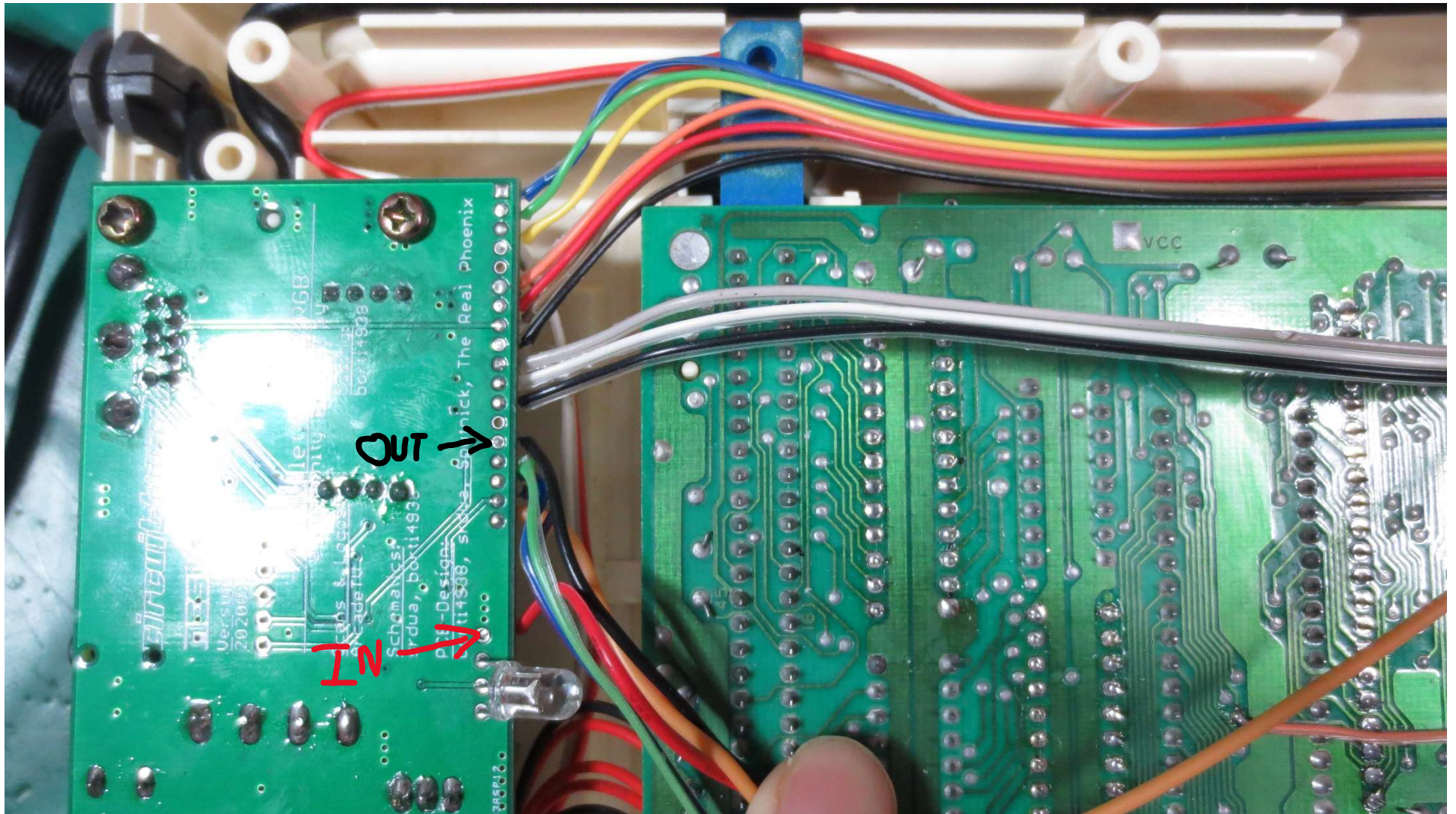


### b) Soldering

On the back of the board solder the Reset Input from one of the two pin from the Reset button NOT GROUNDED. The other is going to the positive lead of the C1 capacitor:









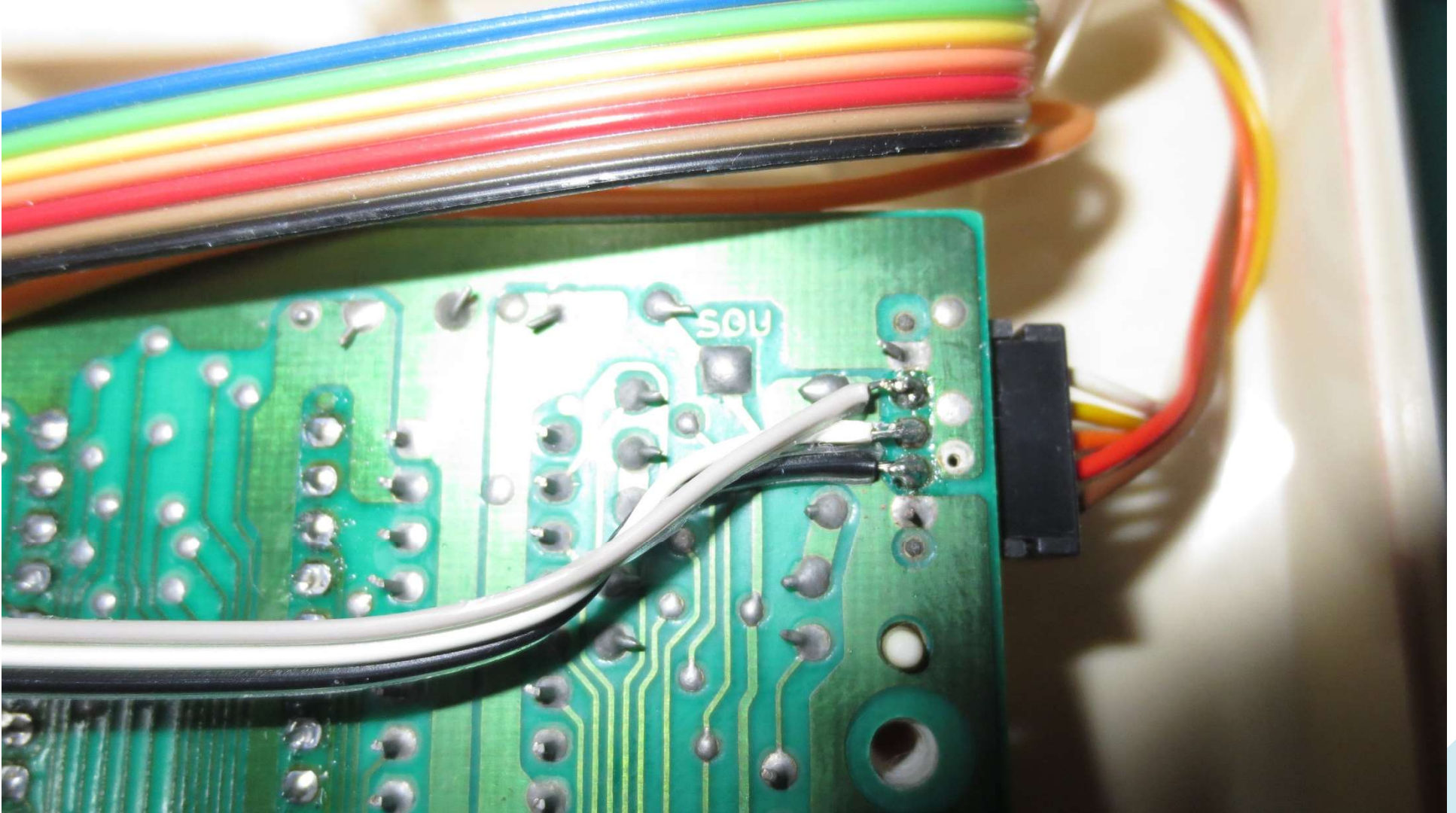
### 3) PULSE, LATCH and DATA

Use P1 connector and link it to the board as such:

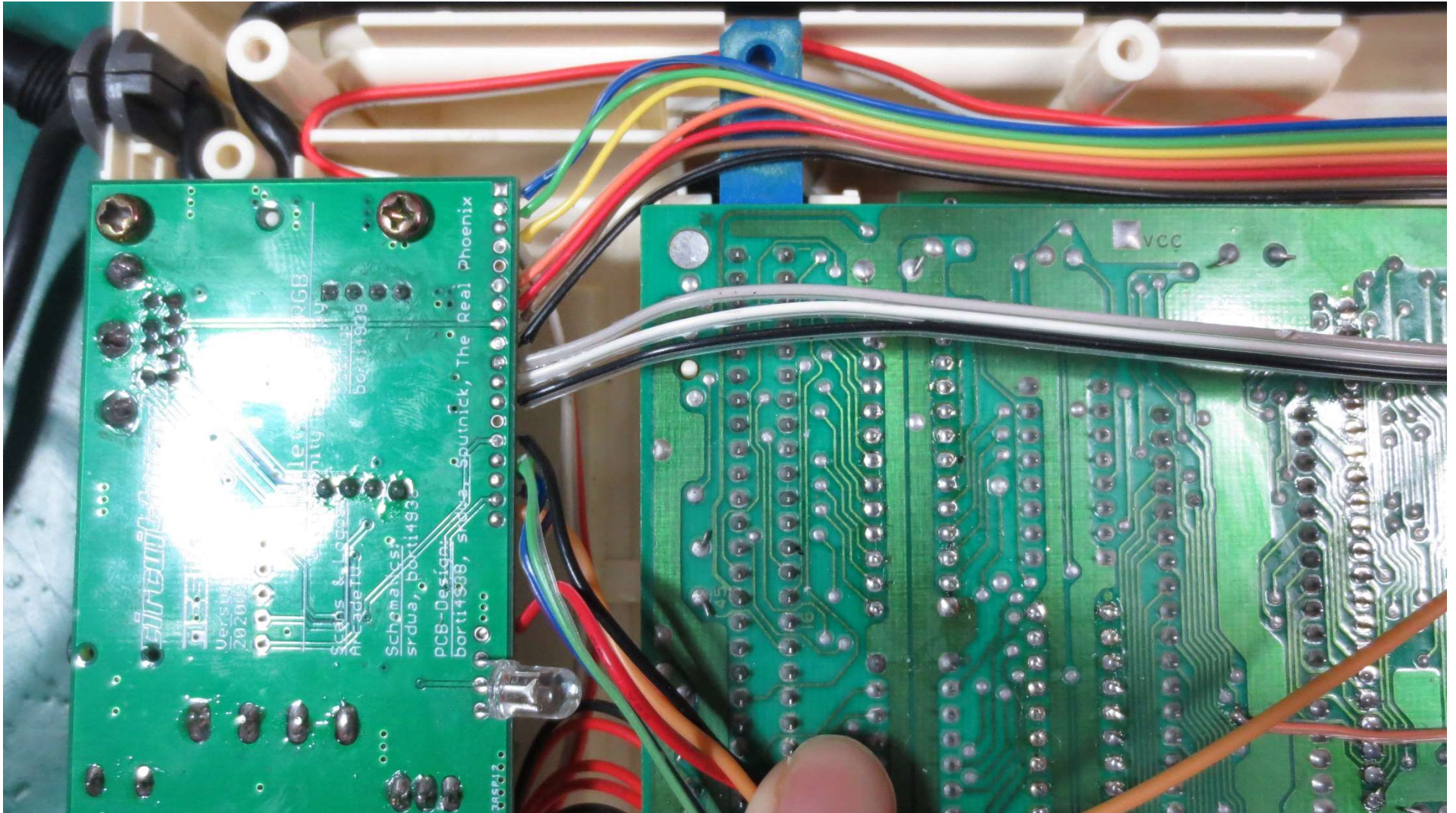
Pin 2 = Pulse (gray wire on pic)

Pin 3 = Latch (white wire on pic)

Pin 4 = Data (black wire on pic)



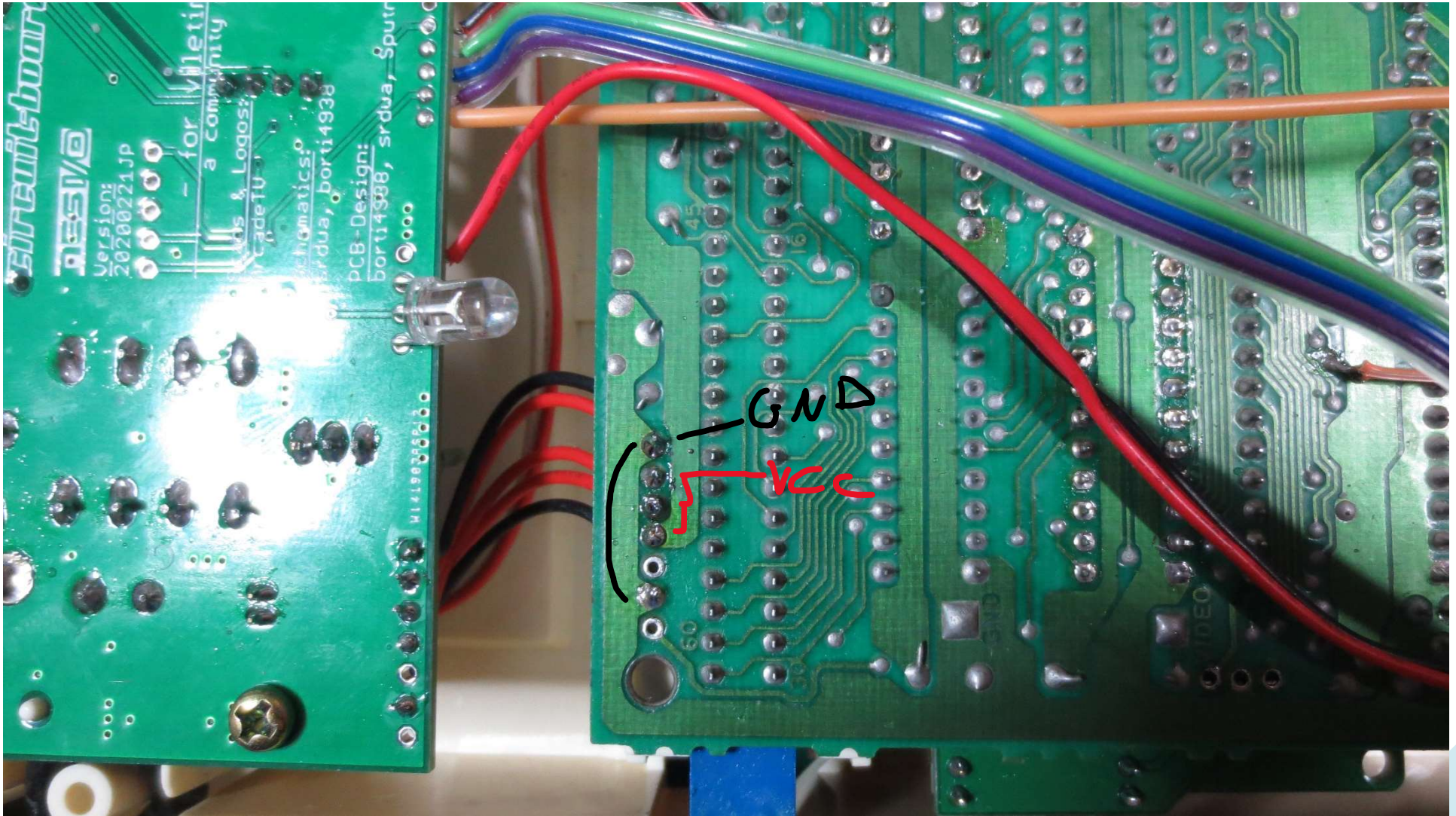






#### 4) Power

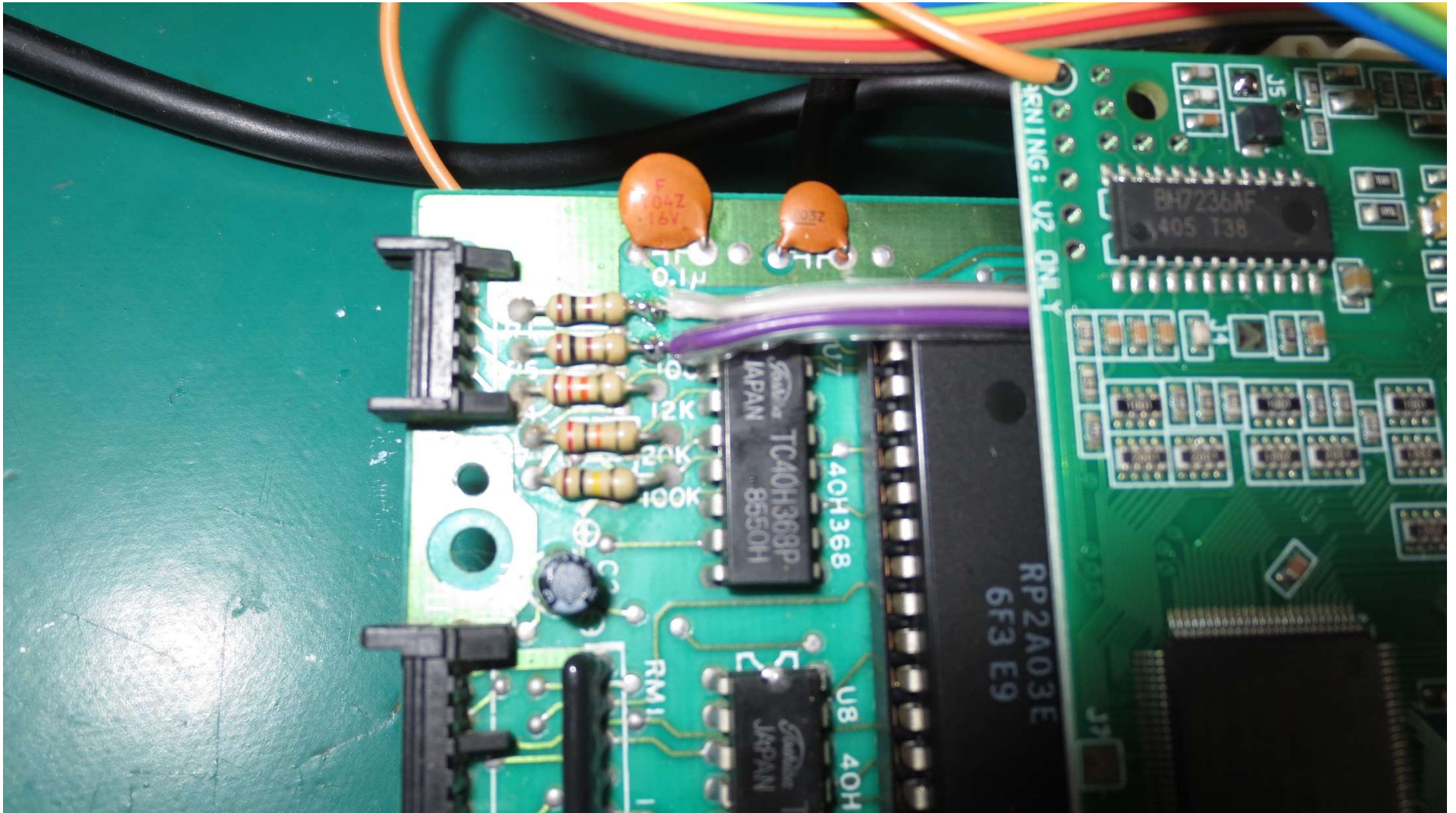
Nothing special, but you should be careful since there are two revisions of the original powerboard: one with a flex cable (HVC-CPU-07) and the other with the R/F box soldered to the motherboard (HVC-CPU-GPM-02). Use a multimeter to find the +5V, and GND signals. Ignore Audio and Video out. Here's a pic of an installation on a HVC-CPU-07.





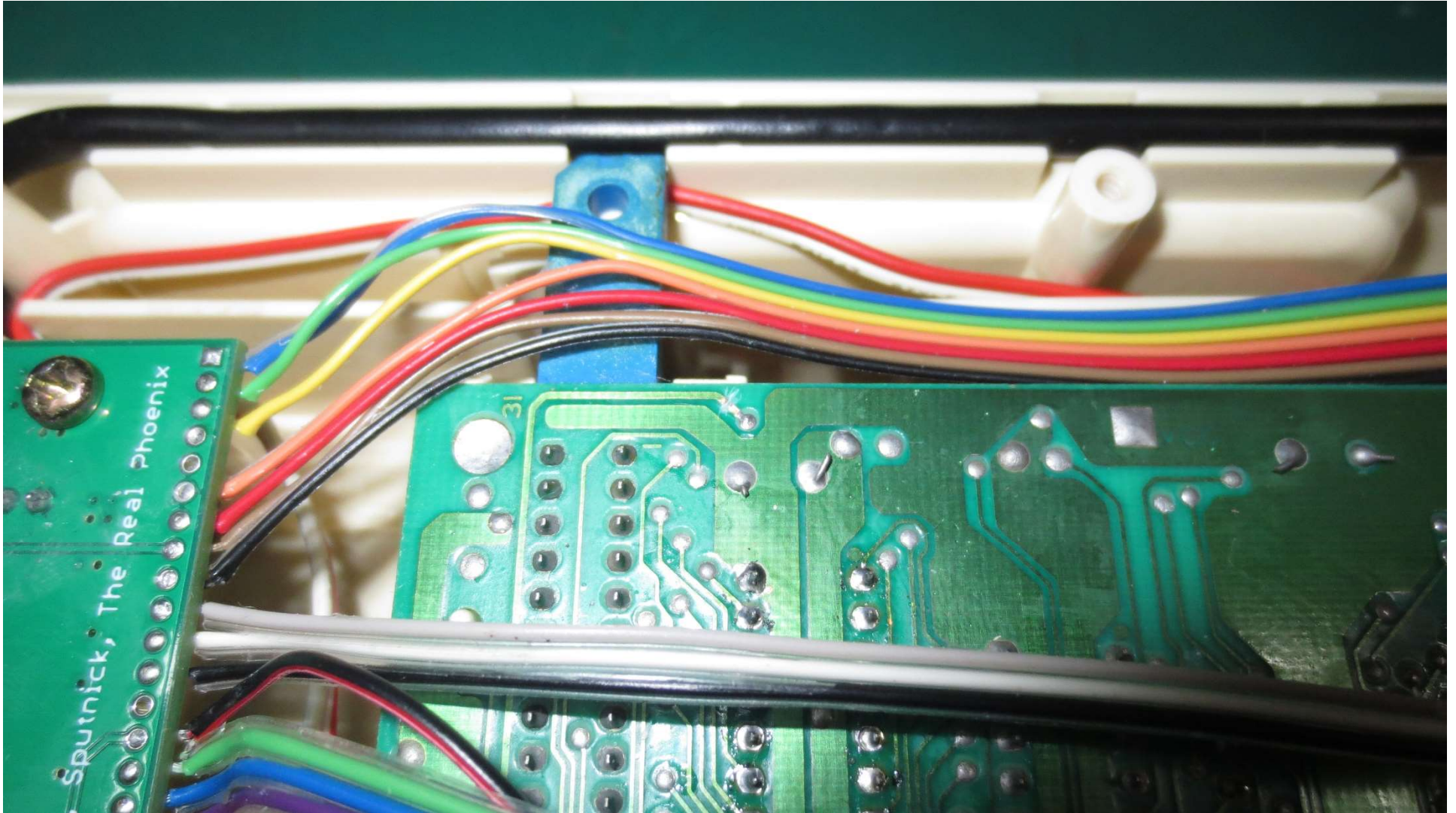
## 5) Audio

Audio A and B can be linked to R1 and R2.





In order to avoid audio loop feedbacks you NEED TO CUT AUDIO TO CART:



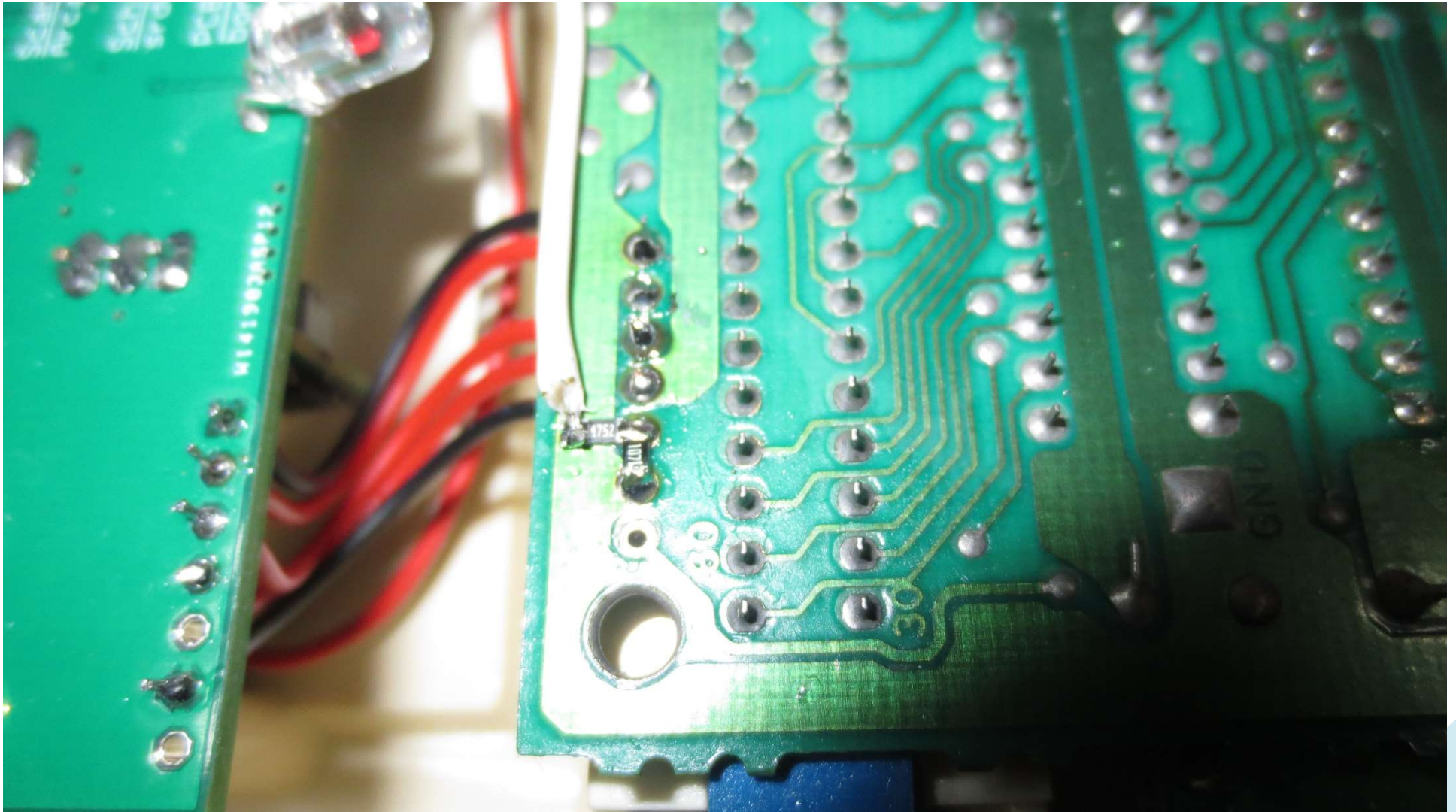


**/!\ EXPERIMENTAL : RESTORATION OF ADIIONAL CHANNEL FROM CART: DO IT AT YOUR OWN RISK**

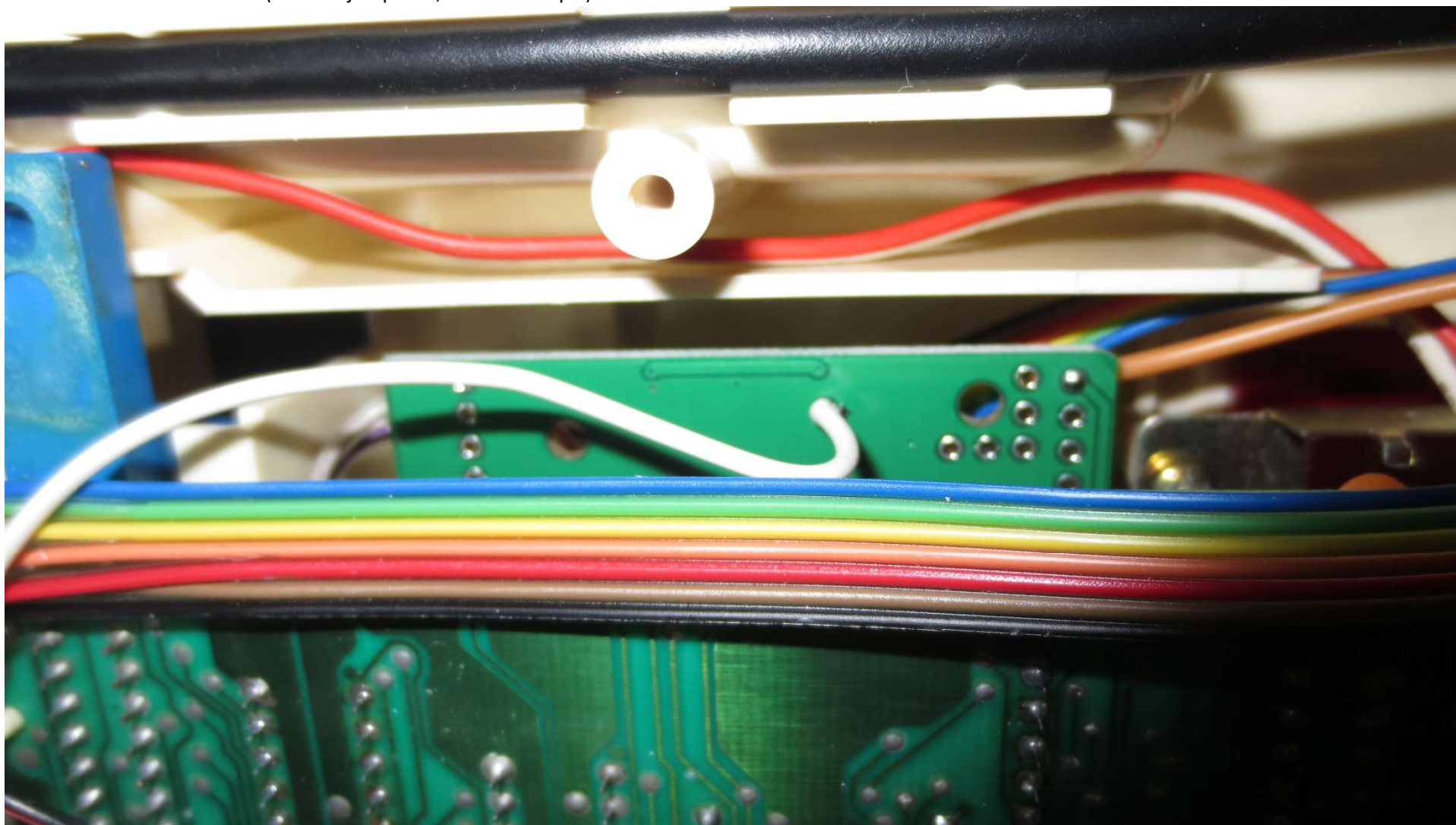
**THIS IS UNTESTED SINCE I CANNOT SOURCE FAMICOM GAME WITH AUDIO EXPENSION OR FAMICOM N5**

You can try to restore the audio from the cart by doing the same modification as the audio channel from the front loader.

- Solder a 1k res between the Audio Out and Ground (CUT THE INPUT BEFORE AS MENTIONED ON THE PREVIOUS PAGE)
- Solder a 47.5kOhms res between the Audio Out and a wire.



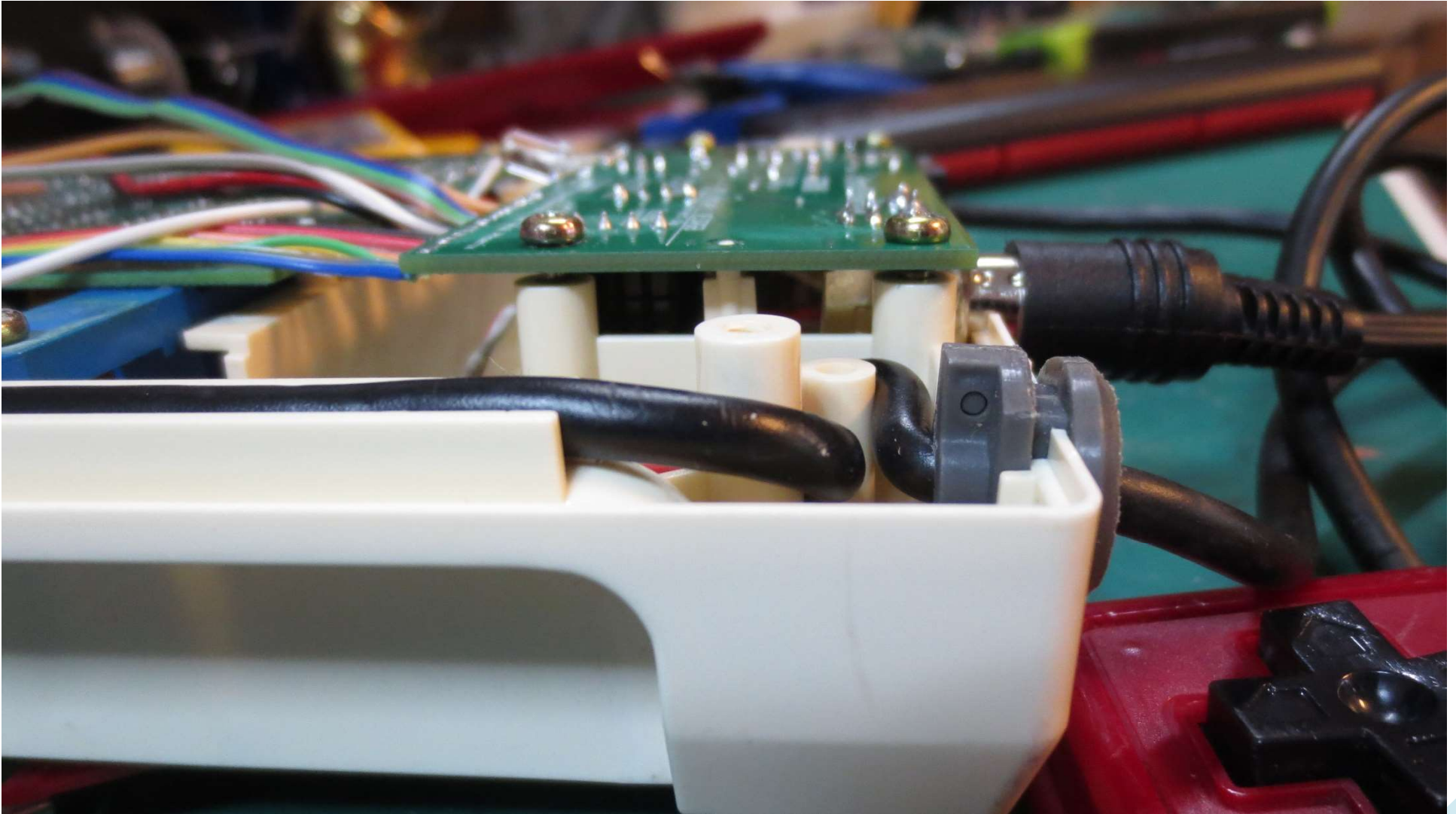
- Link the wire to the NESRGB (via next jumper J5, underneath pic):

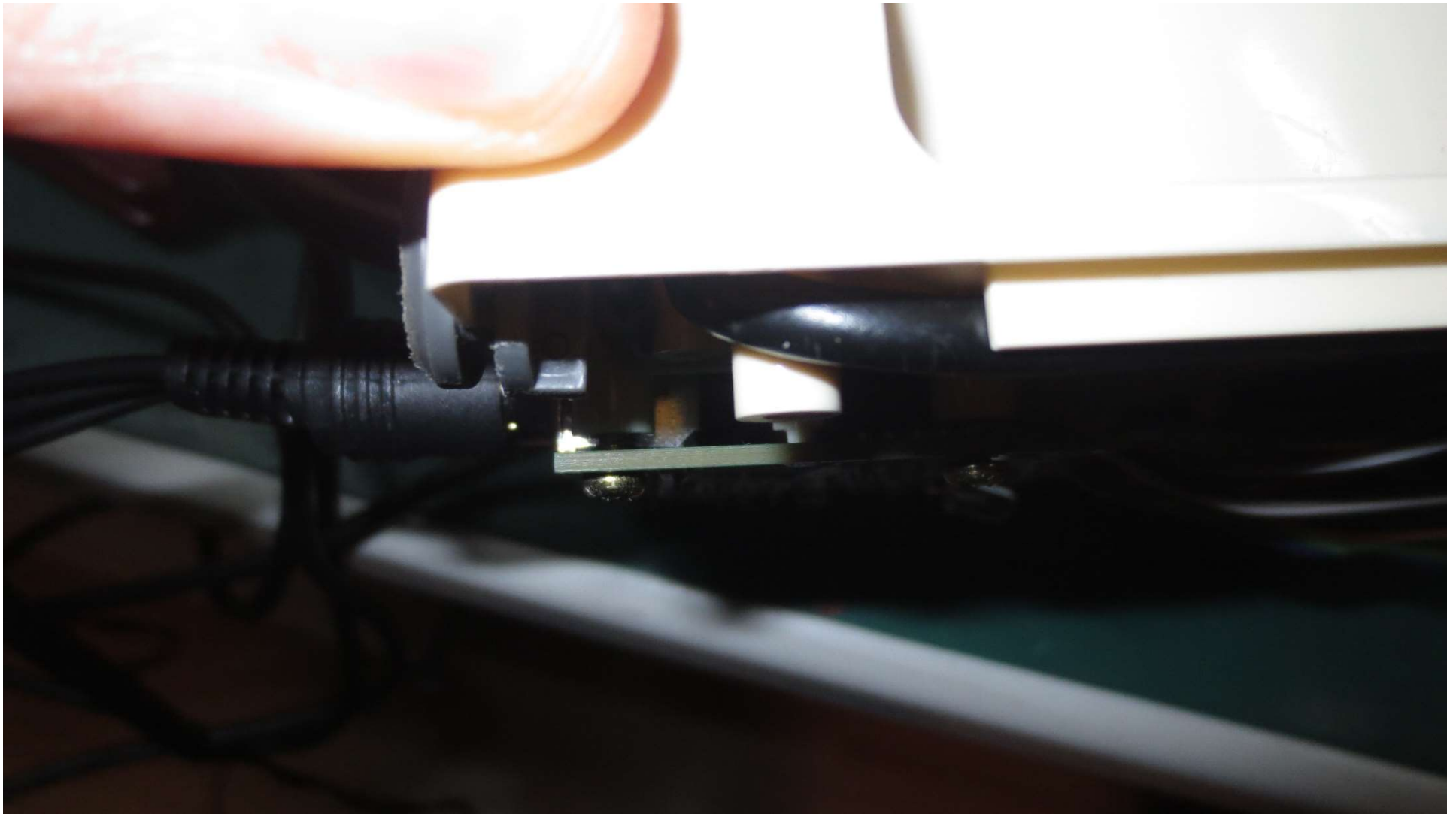




## 6) Fixing the Famicom I/O

Despite all my efforts, the 9pin is slightly too high for the hole. You can however put your cable in then screw the board. The screws on the connector side should be tight enough to hold the board since the holes in the PCBs are small enough.







7) Pics of prototype installation (ignore the tiny orange wire in the CPU which is a destroyed vias restoration:

