

Prerequisites:

NES-101 Top Loader with Hi-Def NES not-cut installed (tested working)

<https://www.ebay.com/itm/Hi-Def-NES-no-cut-mod-kit-Black-with-Red-LED-Height-Def-for-Nintendo-Top-Loader/312799472344?hash=item48d44d2ad8:g:Q2IAAOSwY9pdn5Jm>

Composite Mod components

- a) 1 x CatHouse Games NES-101 AV V1.2 amp board
<https://console5.com/store/nestoploader-nes-101-and-famicom-composite-av-mod-kit.html>
- b) 1 x 3D Printed NES top loader RCA rear panel
<https://www.shapeways.com/product/5C7JVDREM/nestop-loader-rca-rear-panel>
- c) 3 x RCA Jacks (Video-Yellow, Red-Audio, White-Audio)
<https://console5.com/store/set-of-3-nickel-plated-stereo-a-v-rca-jacks-red-yellow-white-panel-mount-solder-type.html>
- d) 1 x DC female power jack
<https://console5.com/store/sega-genesis-sms-atari-jaguar-famicom-dc-power-jack.html>
- e) 28ga wire assorted colors (at least 30cm/12" in length)
<https://console5.com/store/28ga-stranded-3m-hookup-wire-ribbon-10-color-assortment-12-30cm-length.html>
- f) Soldering equipment (ie, desolder station, no-clean flux, solder wick, solder, IPA, etc)

Modification Description:

This modification will have you remove the equipped RF modulator and replace it with AV composite connections via RCA jack. See examples below...

NES-101 Rear (before modification)

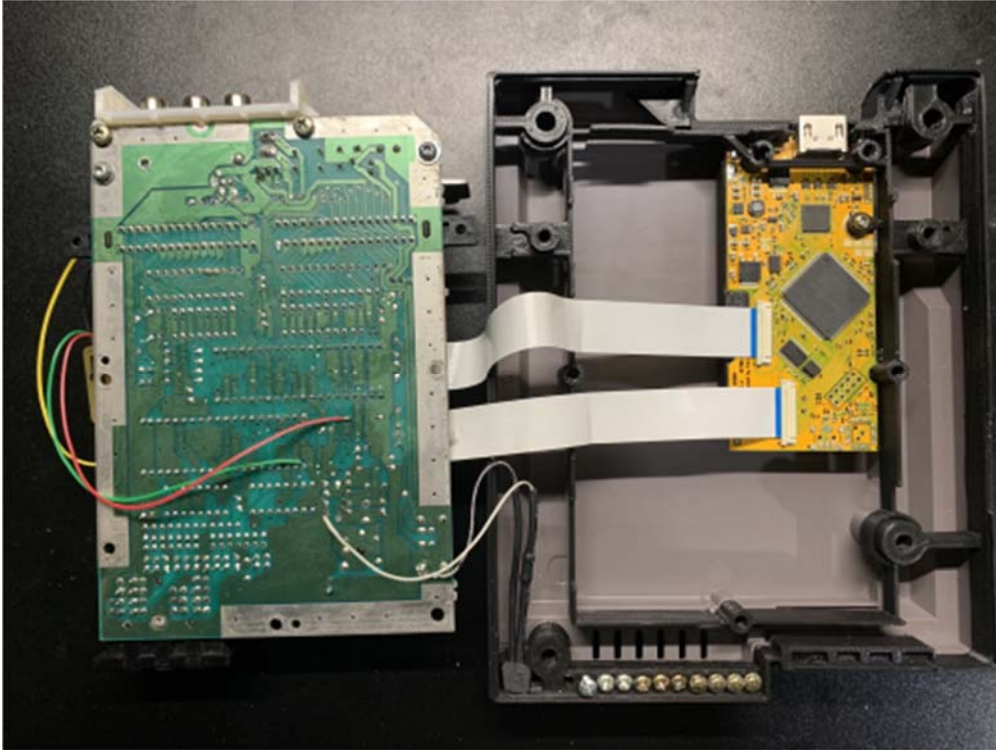


NES-101 Rear (after modification)

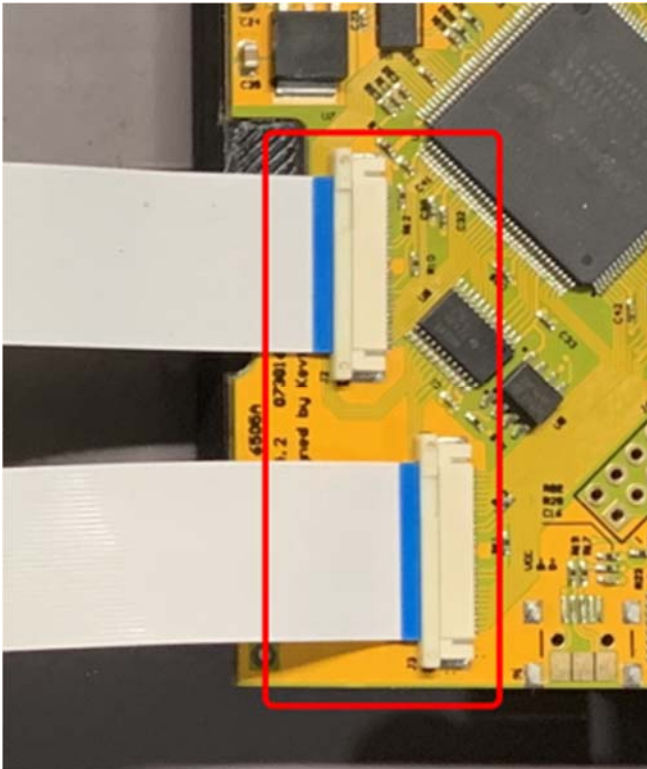


Installation Steps:

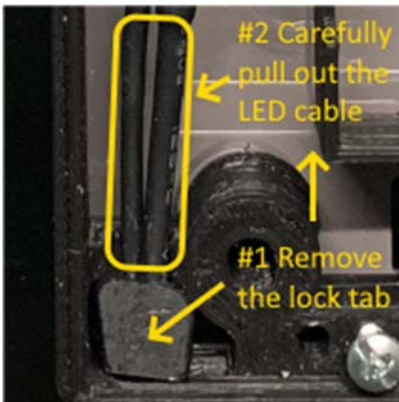
1. Carefully open your Hi-Def NES game console. Layout it as shown below.



2. Carefully pull out the locking tabs, then detach the flex cables from the Hi-Def NES board.



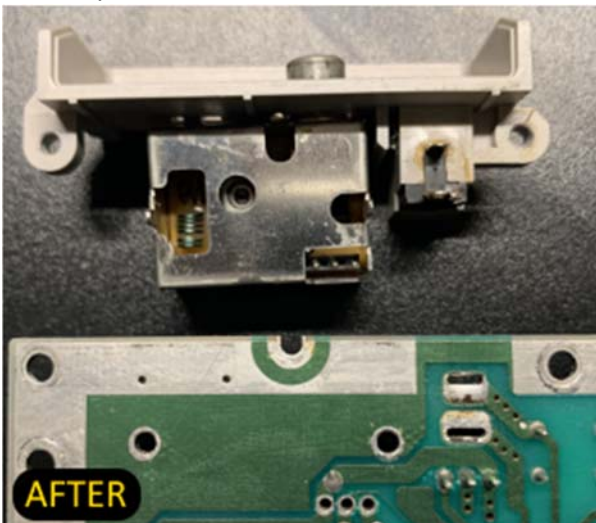
3. Carefully remove the LED lock tab. Now pull the LED cable assembly to completely free the motherboard from the bottom case.



4. Firstly, remove the highlighted RF modulator solder points as shown in image below. Using a de-solder gun will finish the job sooner versus solder wick alone. Afterwards, remove the screws to free the RF modulator from the main board.

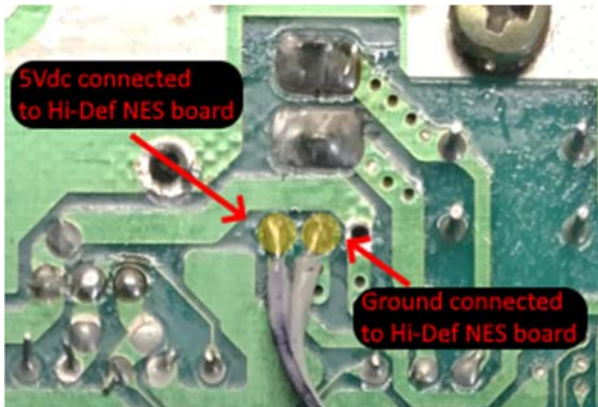


5. Carefully remove the RF modulator without breaking any traces on the main board.

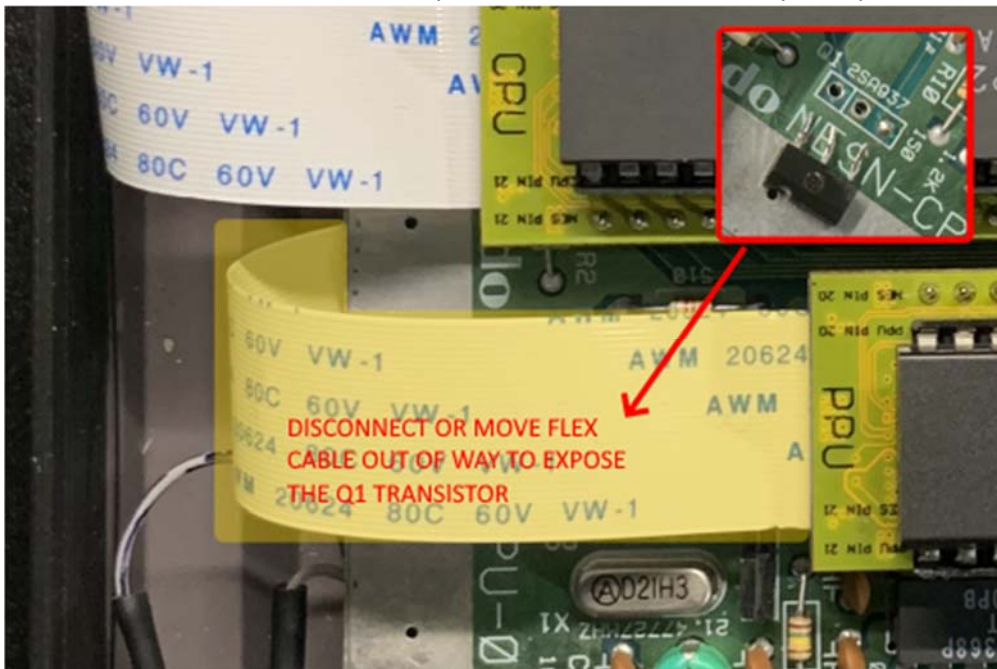


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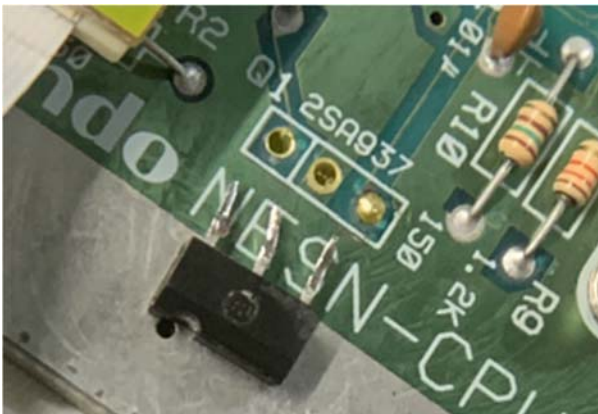
6. If your Hi-Def NES is wired to provide power to the console. De-solder the highlighted points below (just below the AC input jack). Otherwise, ignore and move on to Step 7.



7. You will need to move the PPU interpose flex cable out of the way to expose the Q1 work area.

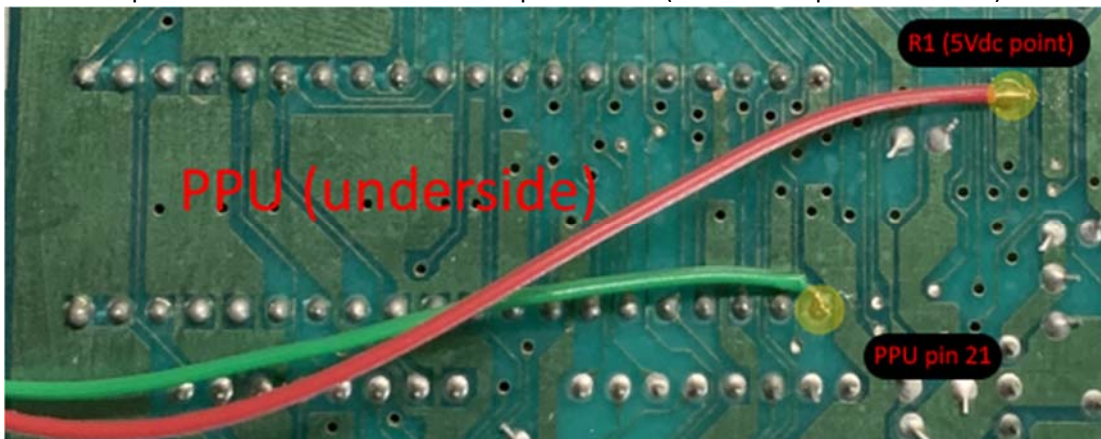


8. Remove solder from under Q1 area, then remove the transistor from the main board.



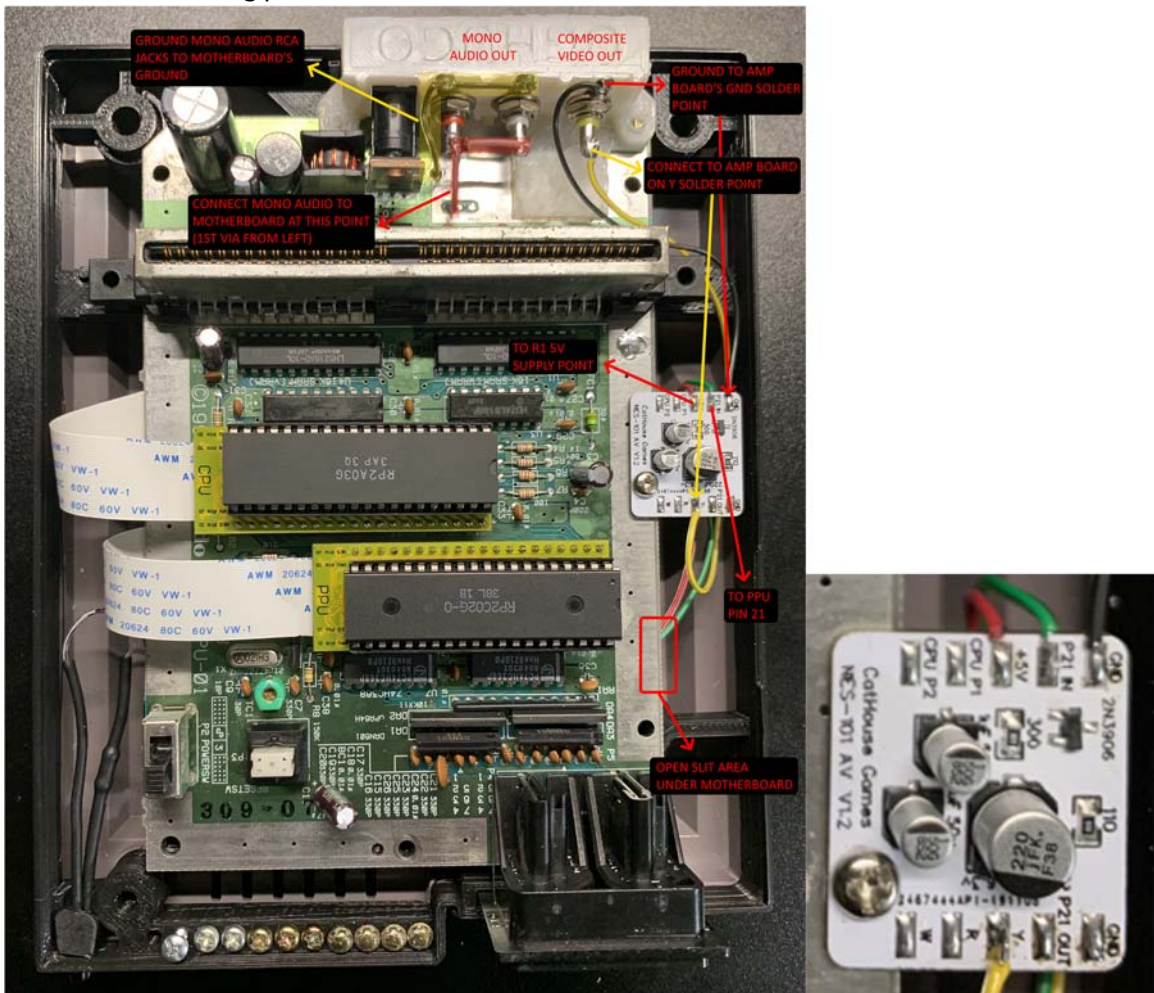
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9. Under the console, solder to the points shown in image. Red to +5V AV board solder point. Green to AV board P21 IN solder point. Ensure that the Red and Green cable are long enough to clear the open slit of the Hi-Def NES no cut plastic mod (see next step for reference).

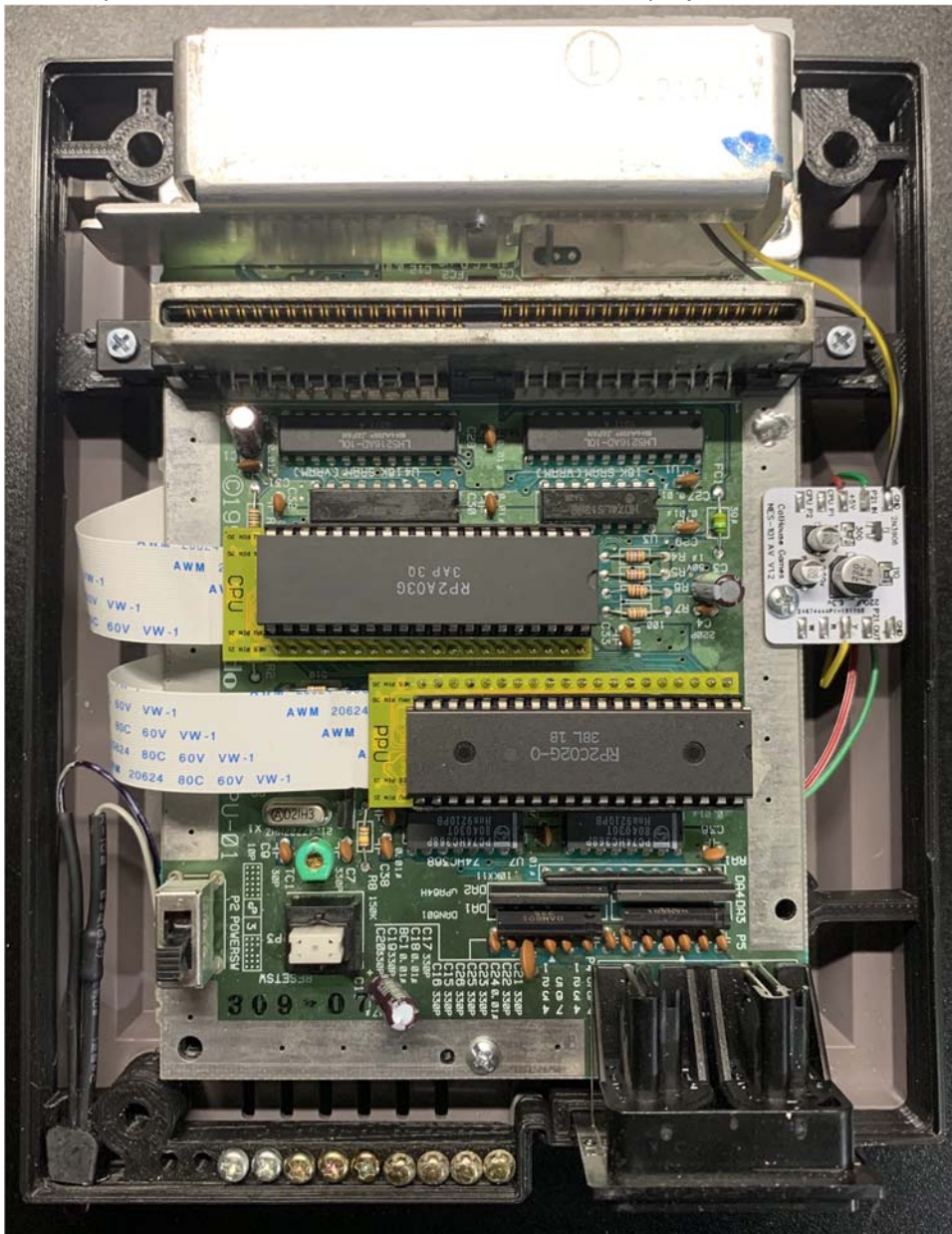


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10. Solder replacement AC power jack to main board. Mount 3D printed rear panel with RCA jacks attached to main board too. Mount the NES-101 AV V1.2 amp board as shown in image below and solder remaining points.



11. Re-attach heatsink and restore the screws that hold it to motherboard and power regulator. Be careful that heatsink does not pinch your video wires going to the amp board. Re-attach LED assembly lock tab and Hi-Def NES cables. The finished project should look like image below.



12. Restore the remaining screws that lock motherboard to Hi-Def NES no cut case. Test to ensure everything works before putting top case back on. Good luck and enjoy the fruits of your labor.

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Special Thanks: Sirotaca