Edit Note

GGNES Modder Edition Installation

GAME GEAR CONSOLE · SATURDAY, JULY 22, 2017 · 6 MINUTES 18 Reads

This page is dedicated to the modders who want to make their Game Gear the way it should have been from the start, who want to build out their Game Gear with every feature possible and who want to keep enjoying the Game Gear for decades to come. I hope to provide all information to make this as painless as possible and let the modders find enhancements to the install process and have a place to share it. At the end of this page please leave a comment with your questions or any information/pictures of your own install to help the other modders going through this install.

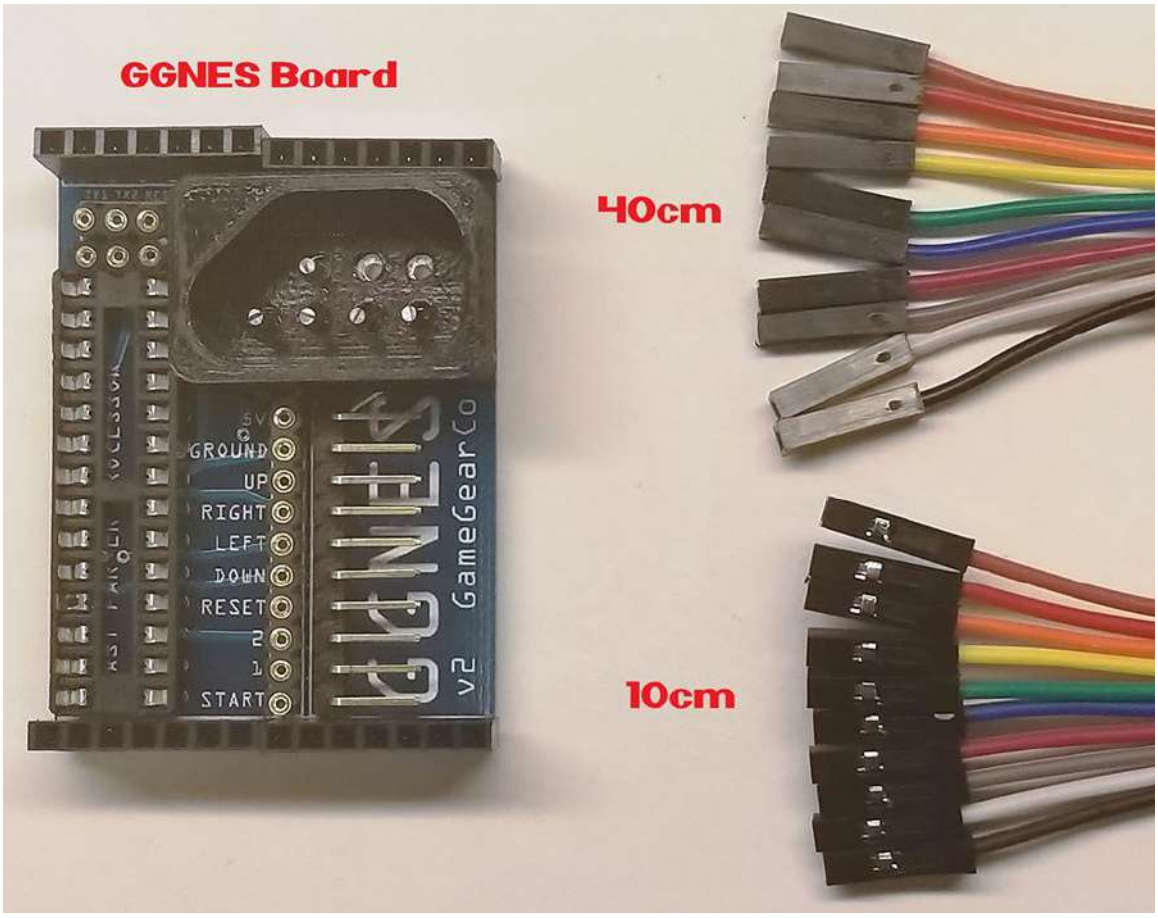
If you haven't already I highly suggest you also do a capacitor replacement for your Game Gear while you have it open. While this isn't a requirement for this mod, it will make sure your Game Gear is playable for years to come so you can enjoy the GGNES mod.

Parts needed for mod

You'll need the GGNES board and wire to connect it.

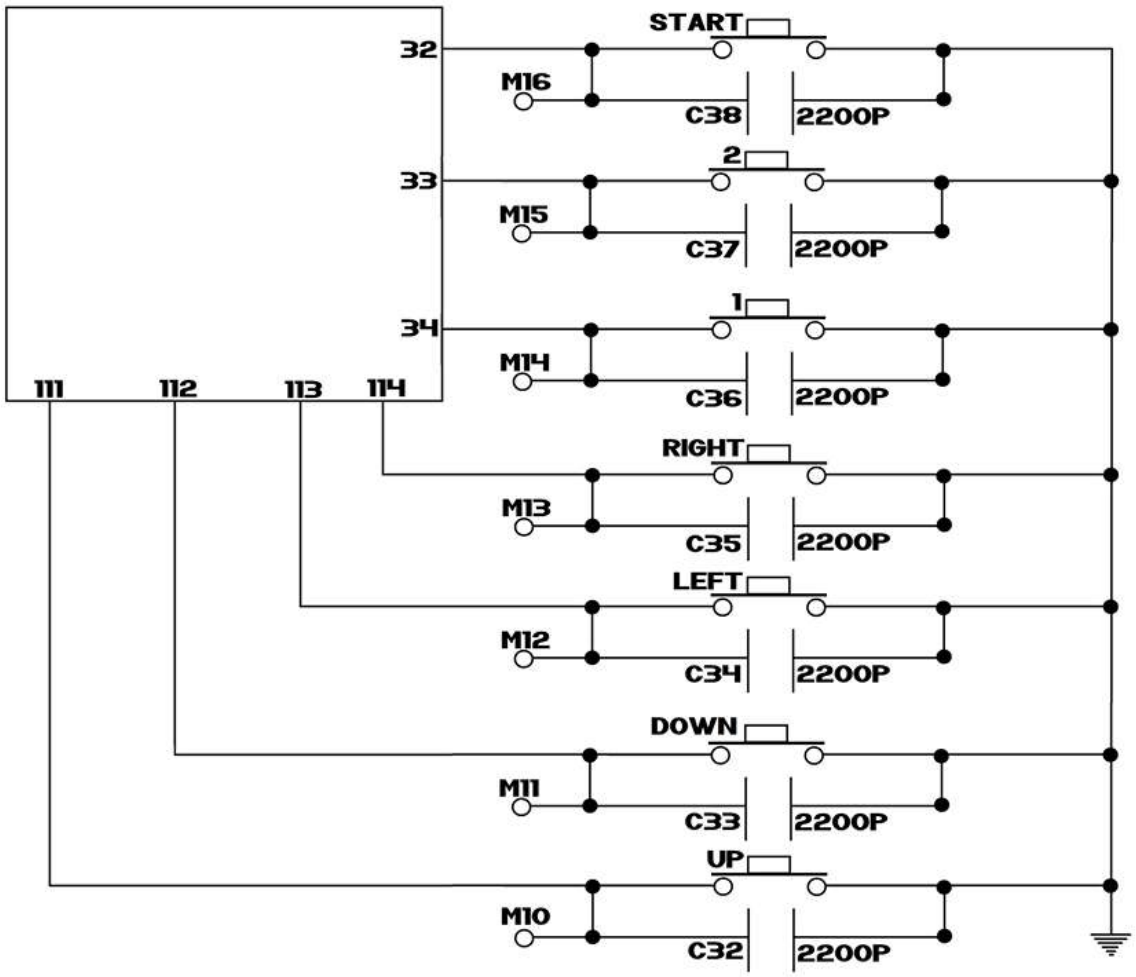
Tools you'll need are: soldering iron, solder, flux, Philips screw driver, 4.5mm security screwdriver, wire strippers, butter knife, and a Deremel.

Parts in GGNES modder edition



Parts in GGNES Modder edition. IC is included, but not pictured.

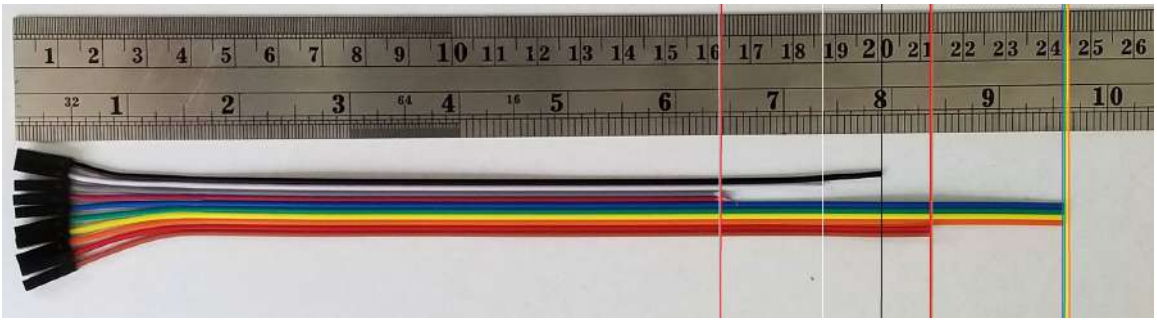
Game Gear Button Schematic



Game Gear Button Schematic

Wire length

The pins on the GGNES board are in an order to line up with the button solder points. Using ribbon cable can be a great way to make this look less messy. Below is a picture of the wire lengths I used for this project.



40cm ribbon wire cut to length

Wire hole

Sadly there are a few to many wires for this mod to be a #nocutmod, but the hole for this mod will be hidden within the battery cartridge. The hole needs to be slightly bigger than the wires to account for the headers to squeeze through. This also means that a better job could be done if one was to remove the headers from the wires, cut a smaller hole just to fit the wires through, and place the headers back on.

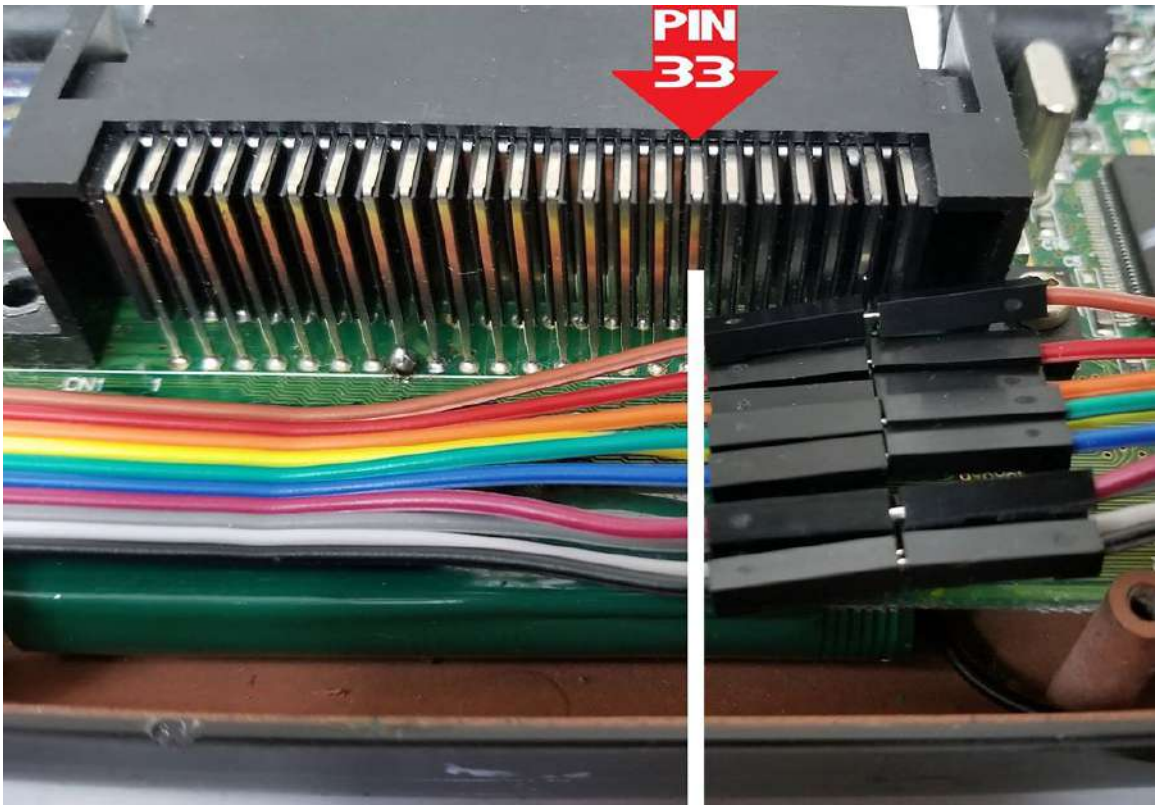
Mod cut view from inside Game Gear

Viewing into battery case

Button Soldering Points

You will solder the wires to the capacitors shown in the schematic. It does matter which side of the capacitor you solder to. If a button or two are not working at the end, check the solder point to which side it's on to start with.

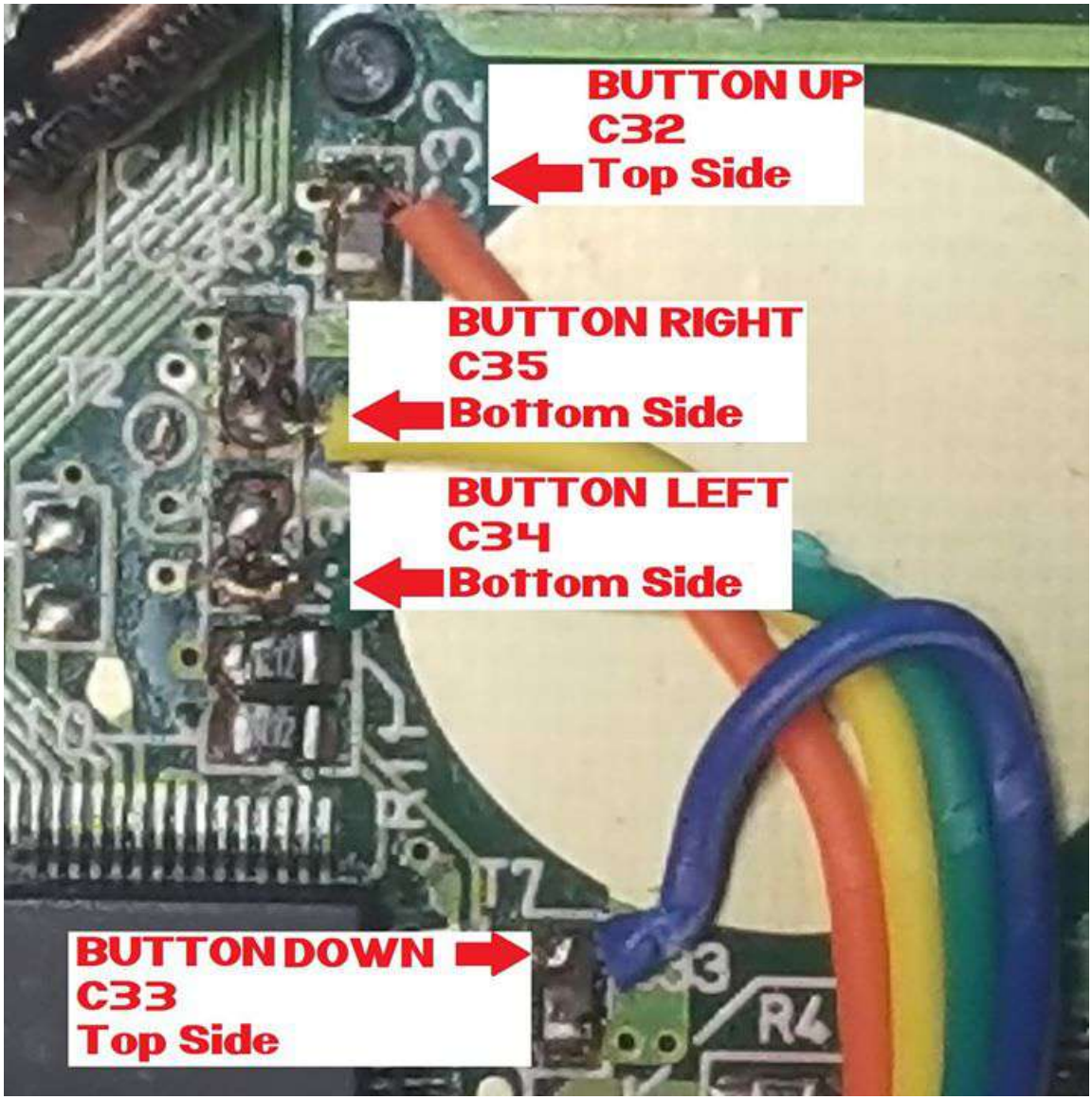
When using the ribbon cable I like to use a 10cm length connected to the GGNES board and a 40cm ribbon on the soldered side. This allows the cables to be kept short with access to disconnect them if you open up your case. If you do this I recommend you place the 40cm ribbon heads lined up with pin 33. This will give you just enough slack to move the Game Gear around when working on it, but not fill the case with to much wire when closing it up.

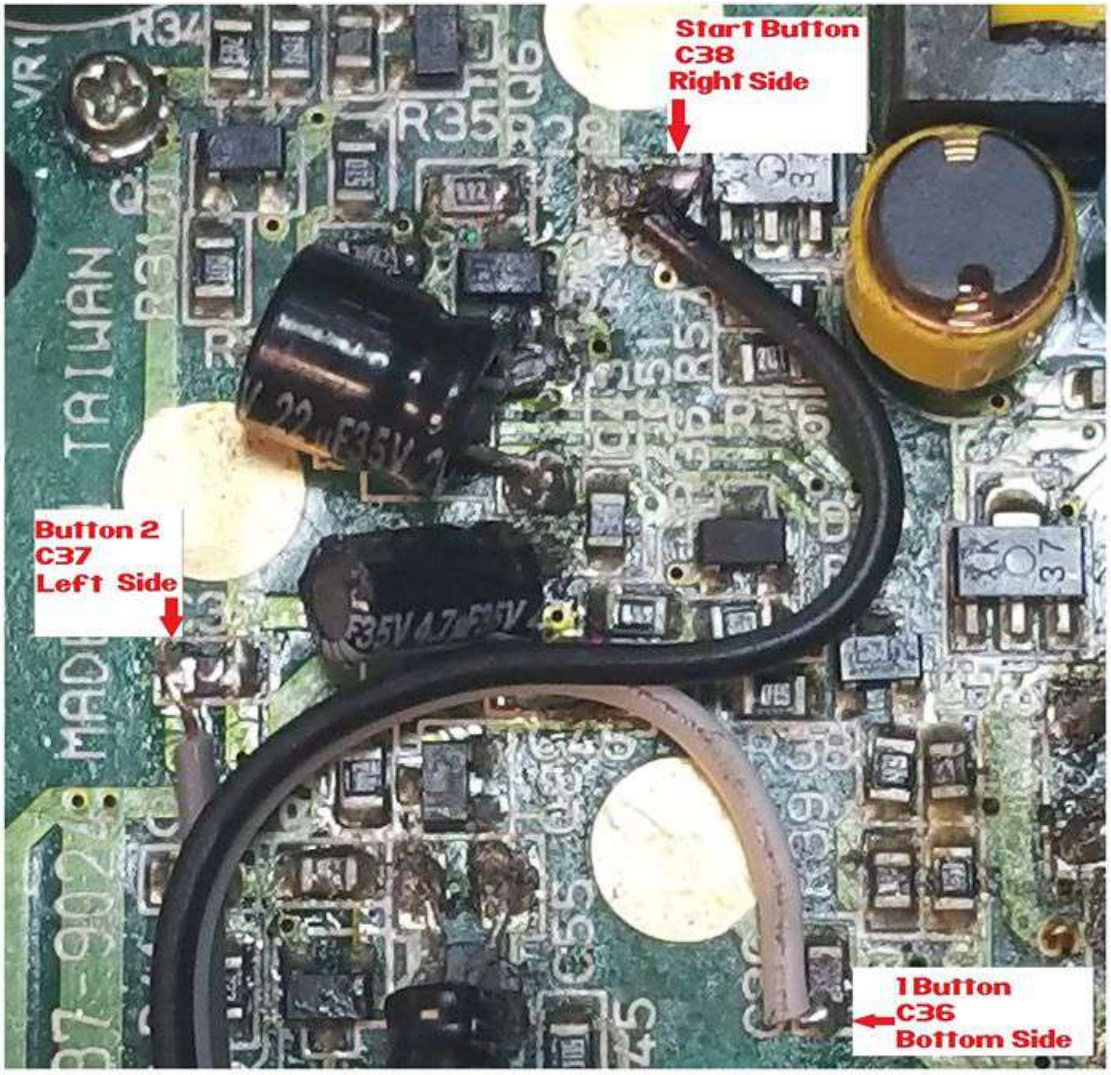


Line up with pin 33

Game Gear button solder point list

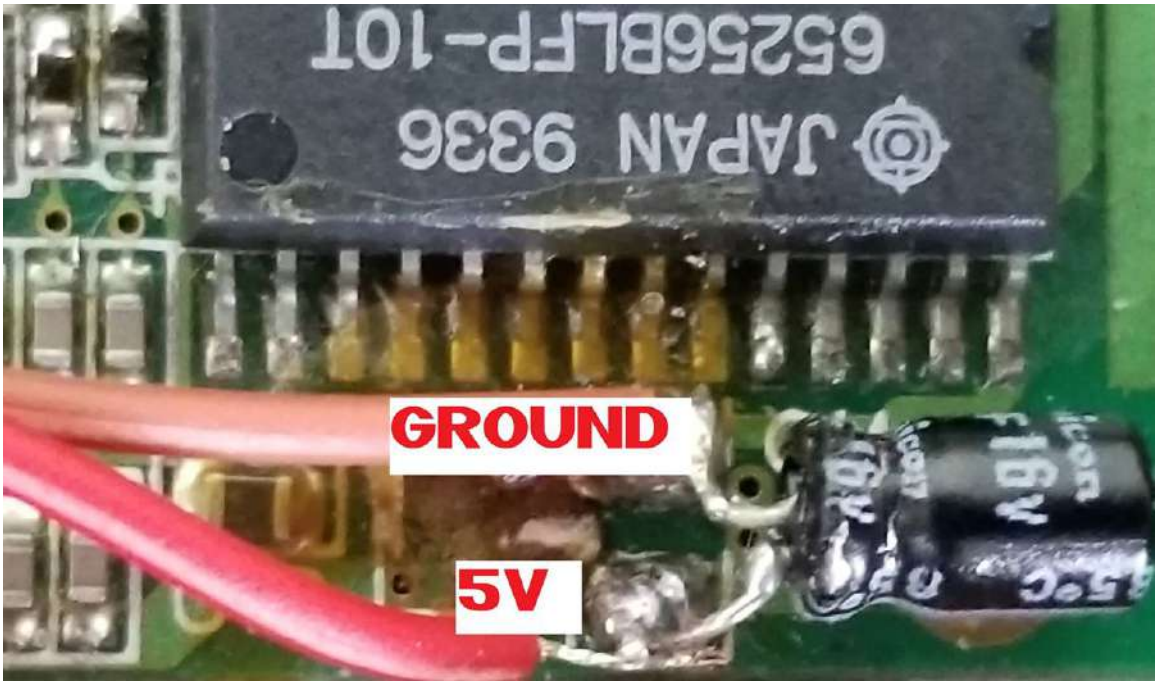
Start - C38 or M16
2 - C37 or M15
1 - C36 or M14
Right - C35 or M13
Left - C34 or M12
Down C33 or M11
UP - C32 or M10
Reset - Pin 39
Power - Pin 2
Ground Pin 41


BUTTON UP
C32
Top Side
BUTTON RIGHT
C35
Bottom Side
BUTTON LEFT
C34
Bottom Side
BUTTON DOWN
C33
Top Side
R4



Reset pin will be Select button on NES controller

The GGNES needs 5V to work. You can get this 5V from a capacitor or by soldering to the game cartridge reader. 5V= Pin 2 and Ground = Pin 41

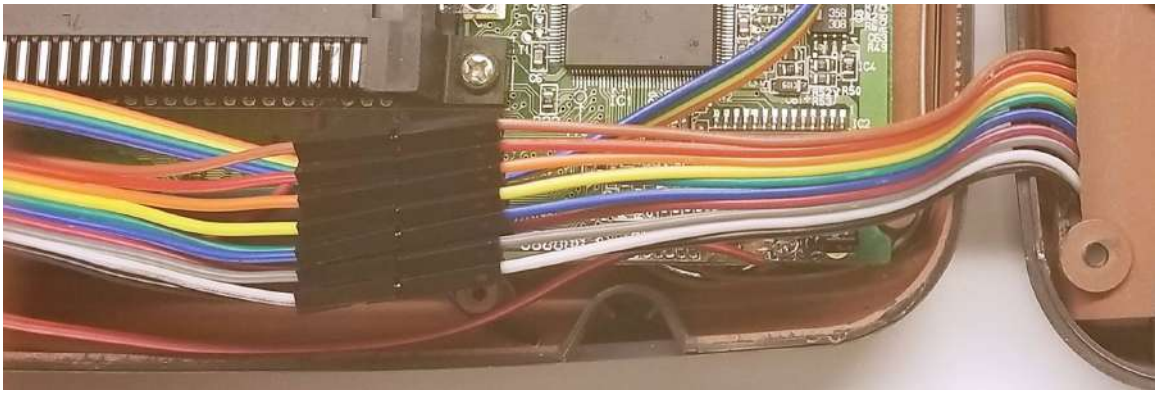


Power - bottom right side of board

When your all done it should look something like this

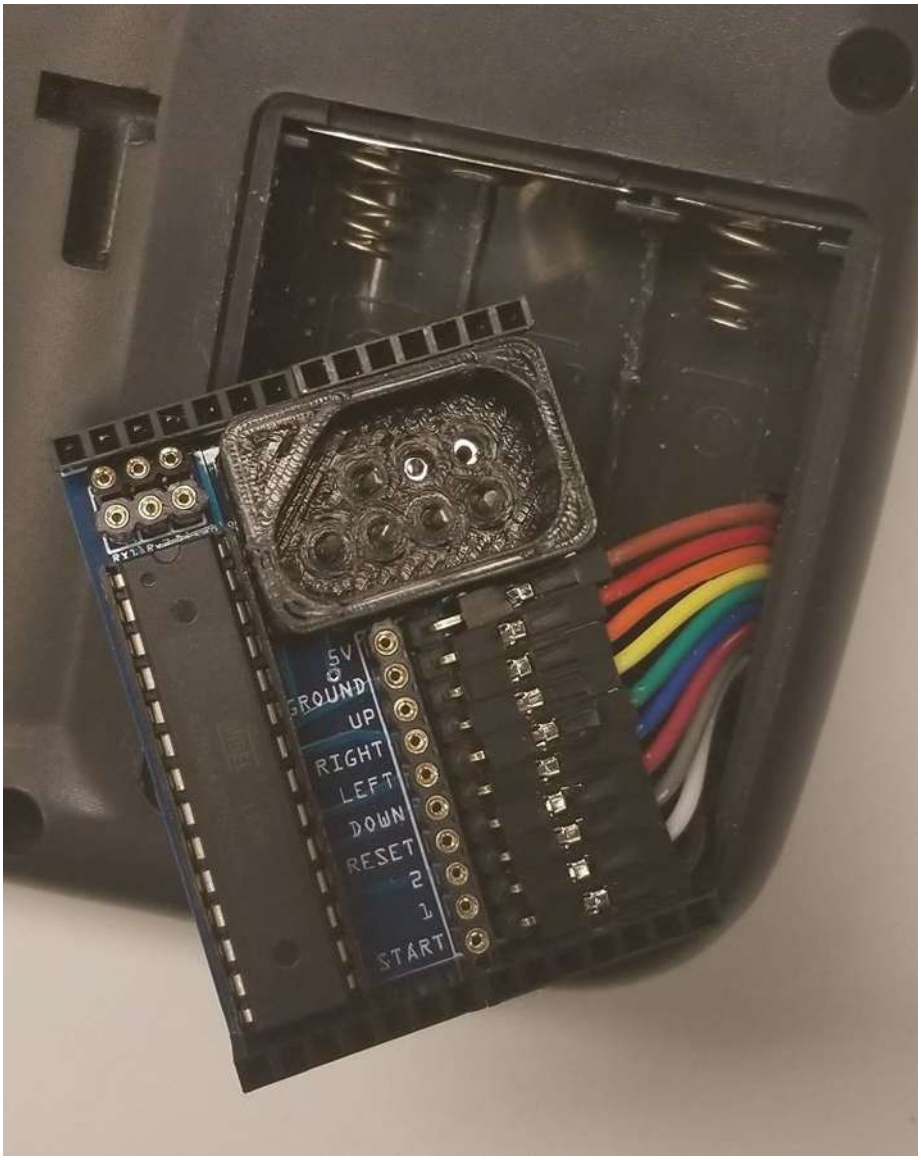
Ribbon cables soldered in

Connect ribbon cable to GGNES 10cm ribbon cable



Make sure to connect the right colors together

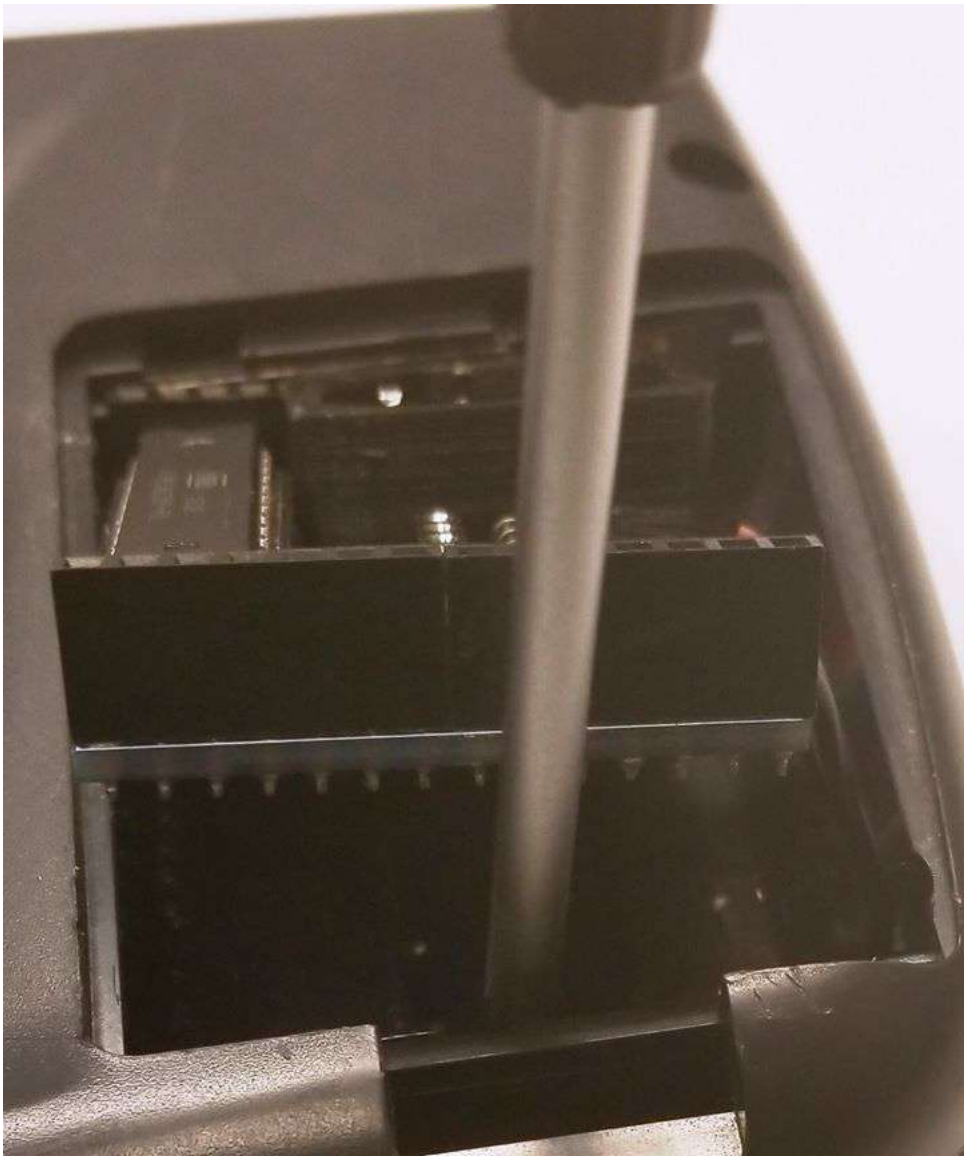
Close up your case, you're done with the inside. Connect the GGNES board to the wires if you haven't already.



Push the GGNES board against the side of the battery compartment that has two springs till they compress fully.

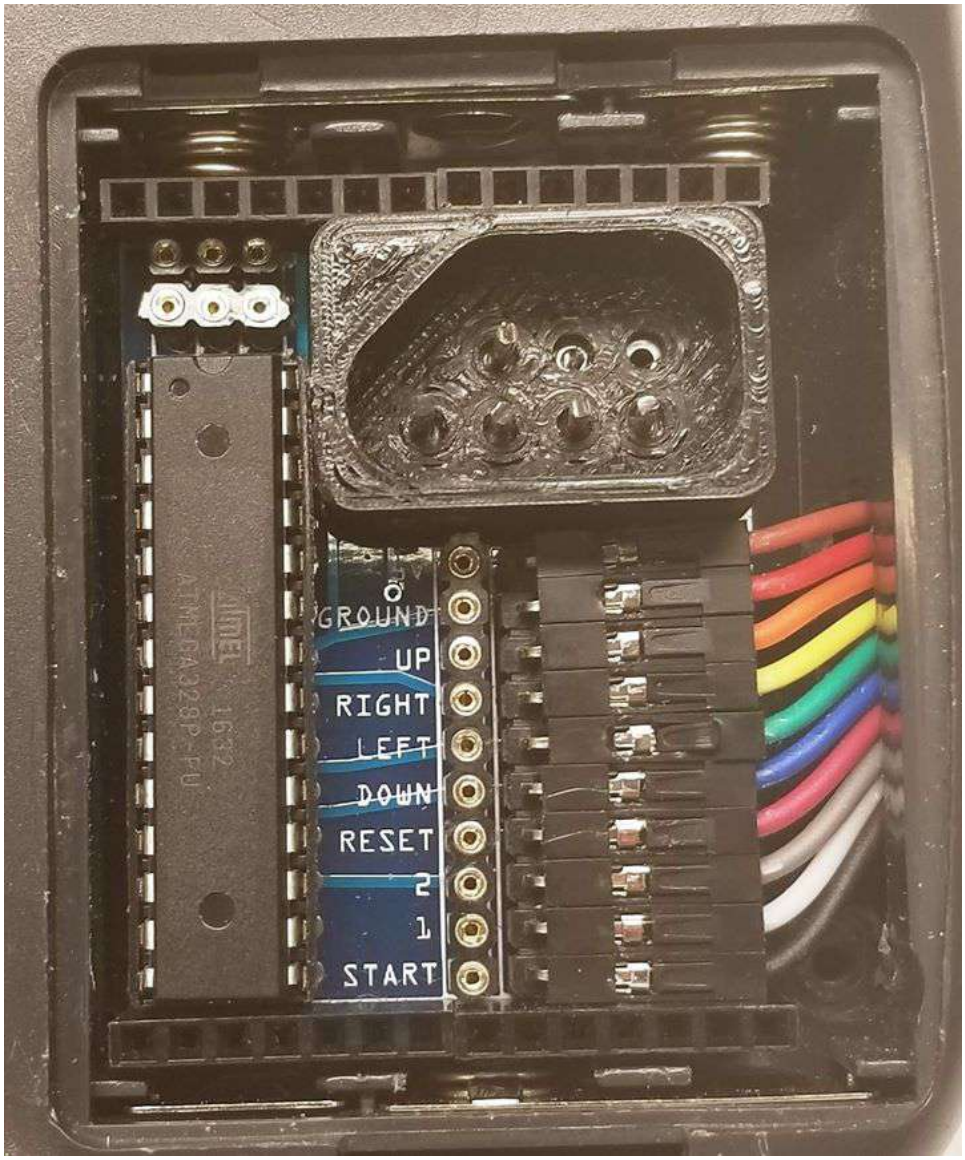
Fully compress the two battery springs against the GGNES

Use a flat tip screw driver or butter knife to compress the single spring side of the battery compartment and push the GGNES board into place.



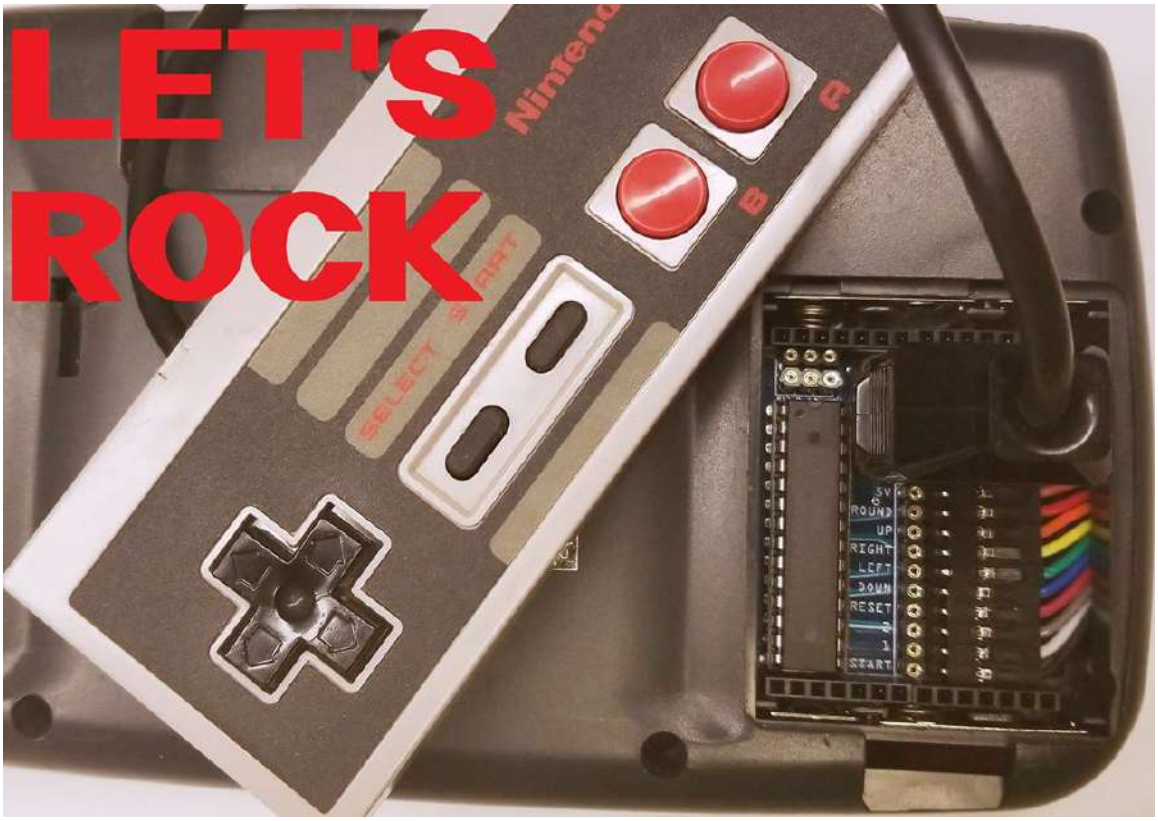
Fully compress the single spring with a butter knife and push the GGNES board into place

When complete it should look like this. Everything fitting perfectly snug with the Game Gear battery cover still going on.



Completed install 🙂

Now plug in a controller, slide in your favorite Game Gear game and have fun!



Leave your comments/questions below and we'll turn this into an FAQ