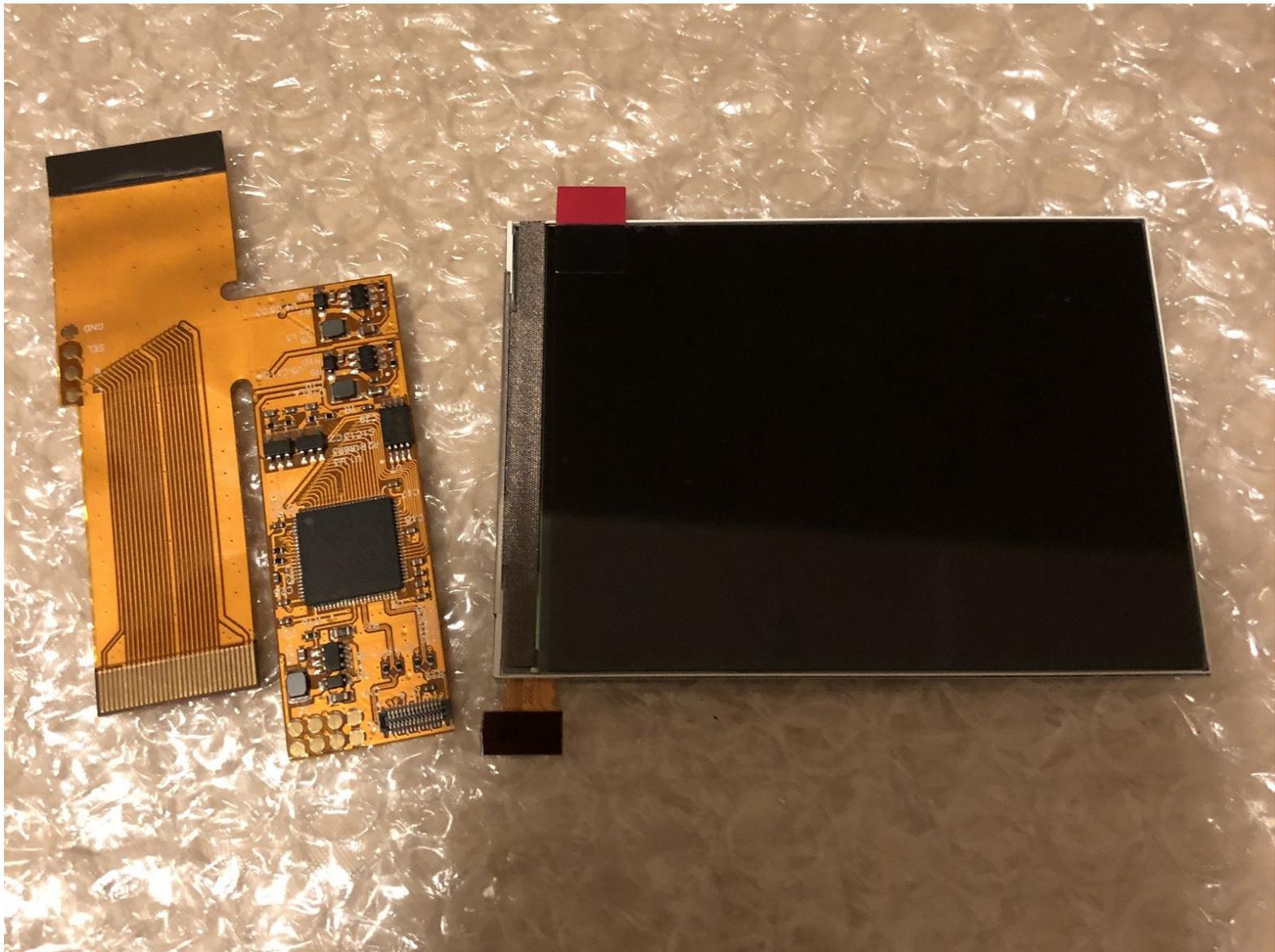




Game Boy Advance IPS Backlight mod

How to install the IPS screen and adapter.

Written By: koppie007



INTRODUCTION

Hi!

This guide will show you how to install the IPS screen and adapter inside the Gameboy Advance.

TOOLS:

- [Phillips #00 Screwdriver](#) (1)
 - [Tri-point Y0 Screwdriver](#) (1)
 - [Soldering Iron](#) (1)
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Step 1 — Game Boy Advance Teardown



- Remove the back battery cover by pinching down on the tab and pulling outward.

Step 2



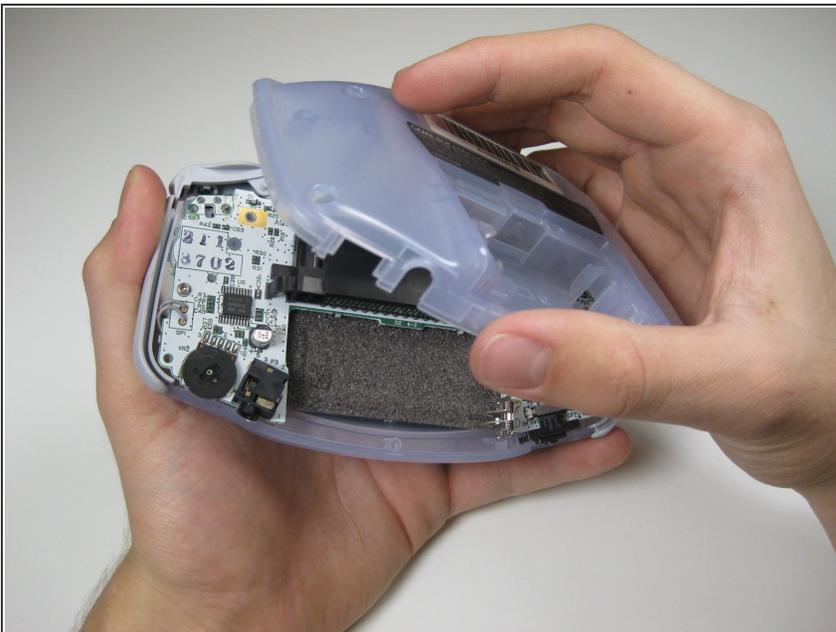
- Remove the six back panel screws using a Y1 screw driver.

Step 3



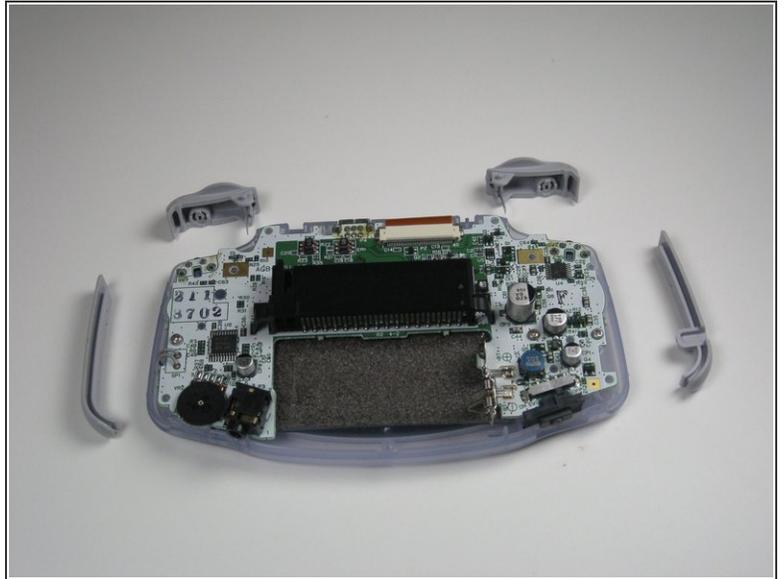
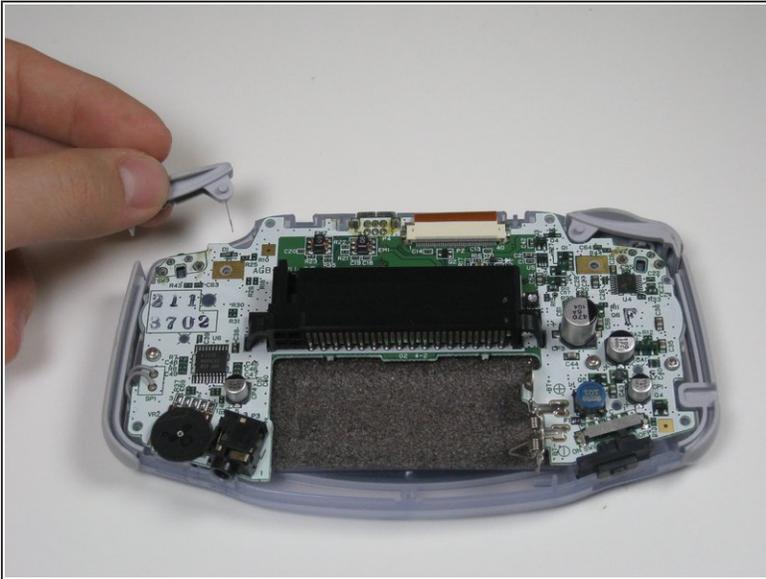
- Remove bottom back panel screw with a Phillips #1 screw driver.

Step 4



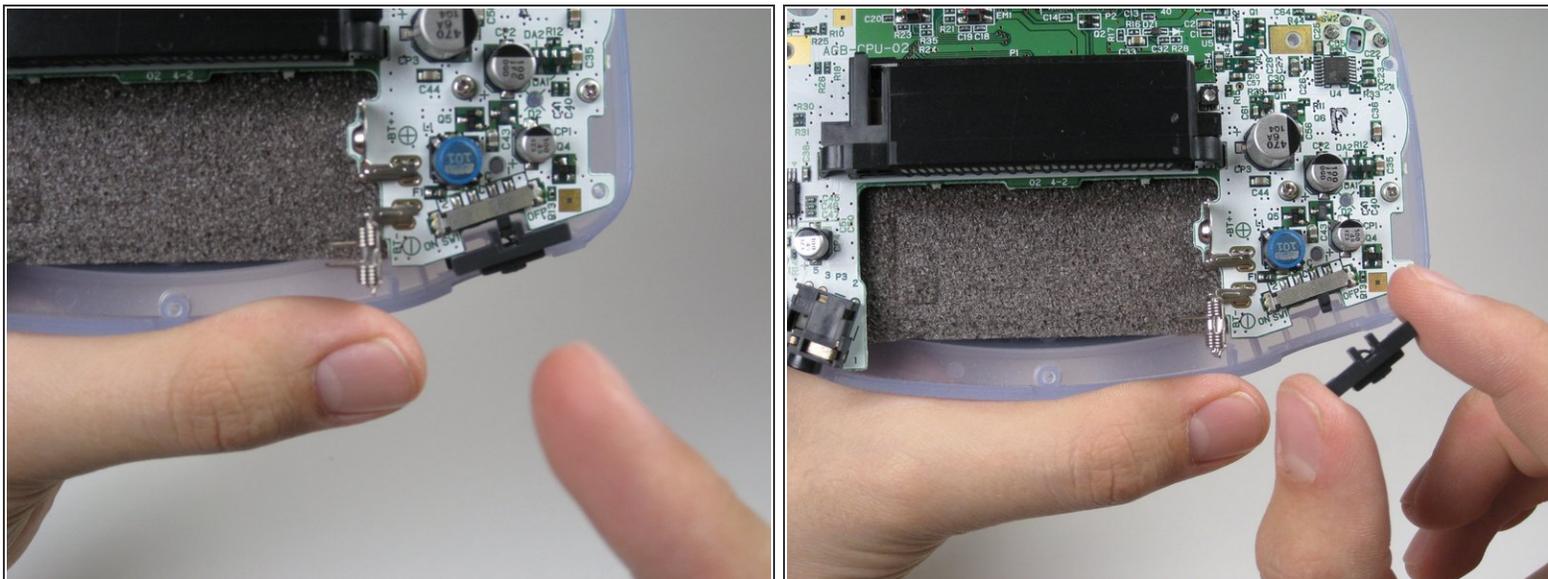
- Remove the back panel by pulling away with one hand and the front secured in the other hand.
- ⚠ Beware of right and left triggers, the right and left panels, and the power switch falling off as the back panel is removed.

Step 5



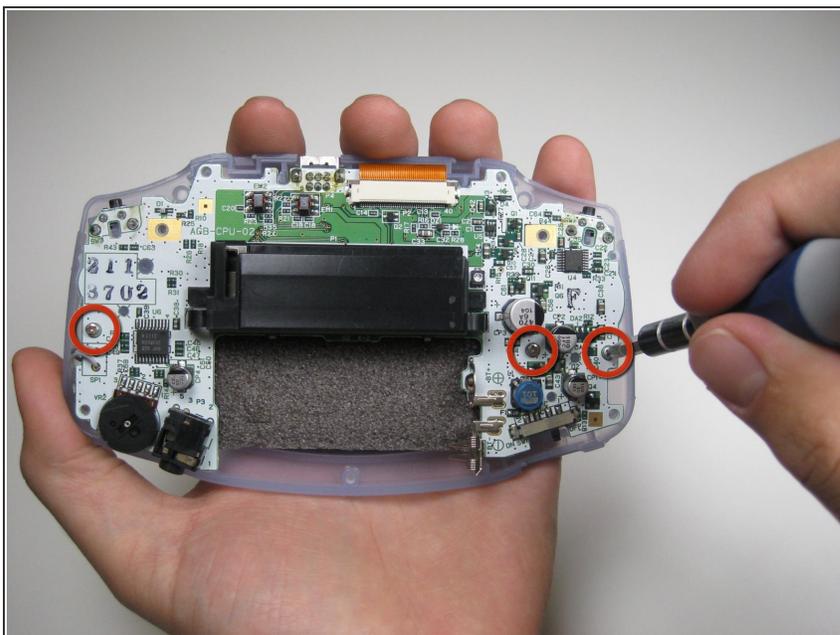
- Remove left and right triggers by lifting and pulling them away from the system.
- Do the same for side panels.
- ⓘ For finicky or jammed triggers only. Adjust and correct triggers and reassemble. Most jammed triggers are caused by buttons misplaced or jammed in its enclosure.

Step 6



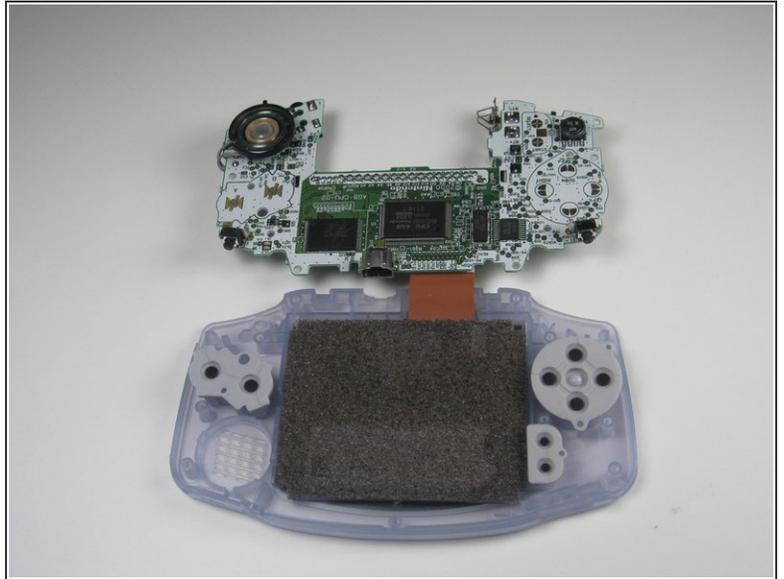
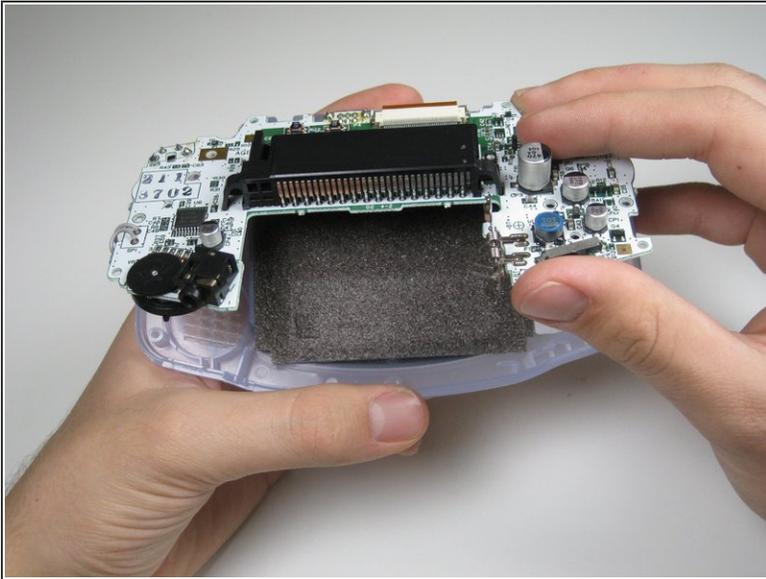
- Remove the gray On/Off Switch by pulling up and away from the unit. Replace with another switch if necessary.

Step 7



- Remove the three screws on the circuit board with a Phillips #1 screw driver.
- ⓘ The last screw on the right is not included on some Game Boy Advance systems.

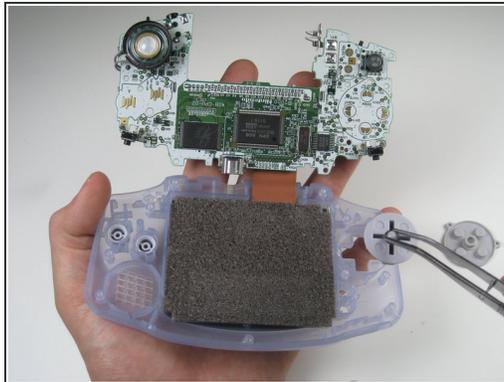
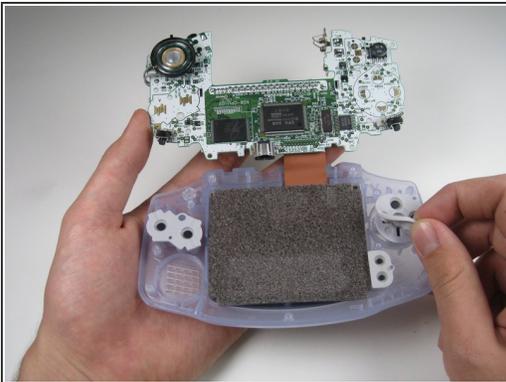
Step 8



- Pull circuit board away from the front panel by pulling up at the bottom of the circuit board, keeping the top ribbon still connected.

⚠ Beware not to damage the top ribbon by pulling up gently.

Step 9



- Remove the rubber button pads from their pockets.
- Remove the plastic buttons and the D-pad from beneath the rubber pads with tweezers or by hand.

Step 10



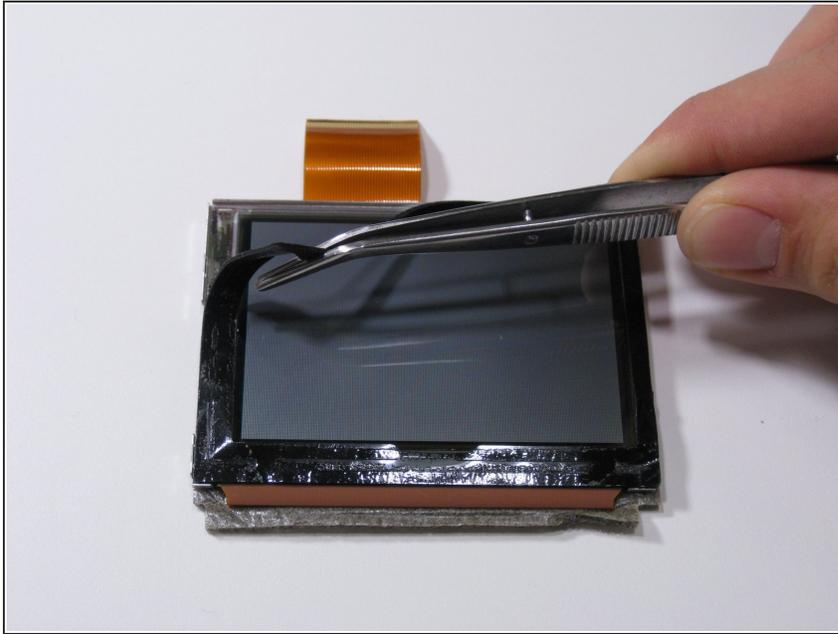
- Use a spudger/tweezers/fingernail to unlatch the LCD ribbon port by pulling the grey tabs on the sides upwards (towards the top edge of the PCB).
- Once the LCD ribbon port has been unlatched, the LCD ribbon should very easily slide out and can be removed with zero force using fingers or tweezers.

Step 11



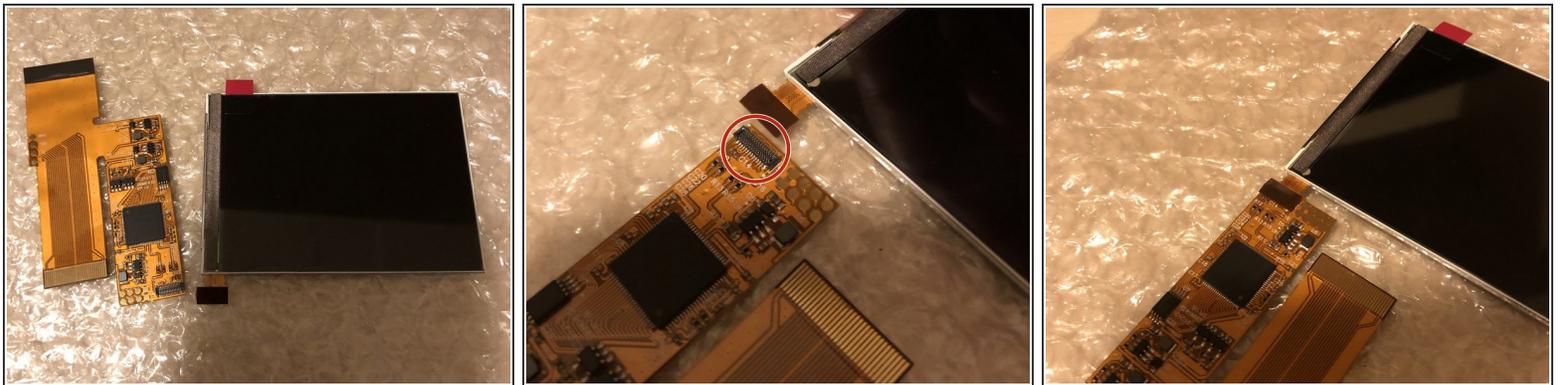
- Use the spudger to lift the screen from the front panel. Place the spudger in the space directly left of the D-pad.
- ⚠ The screen and the front panel is connected by a black tape that could rip if not removed carefully.
- ⓘ You can use an iOpener or a hair dryer on the other side of the front panel in order to soften the black tape.

Step 12



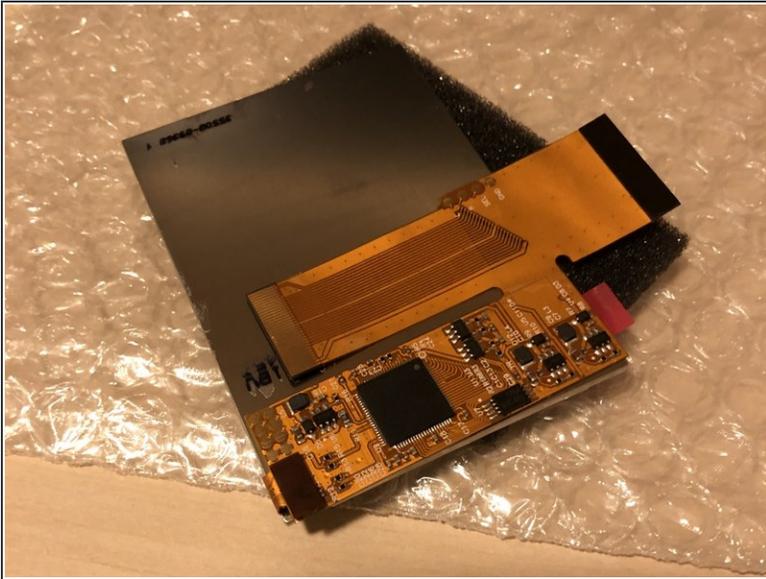
- Use the tweezers to remove the black tape if needed.

Step 13 — Prepare adapter/screen



- First of all, unpack everything and check if it's all good.
- The connector where the screen needs to be attached is circled in red. It's the only connector on the adapter.
- Press the LCD cable straight on the connector (be sure that's it aligned correctly, otherwise you could damage the connector!)

Step 14 — Prepare adapter



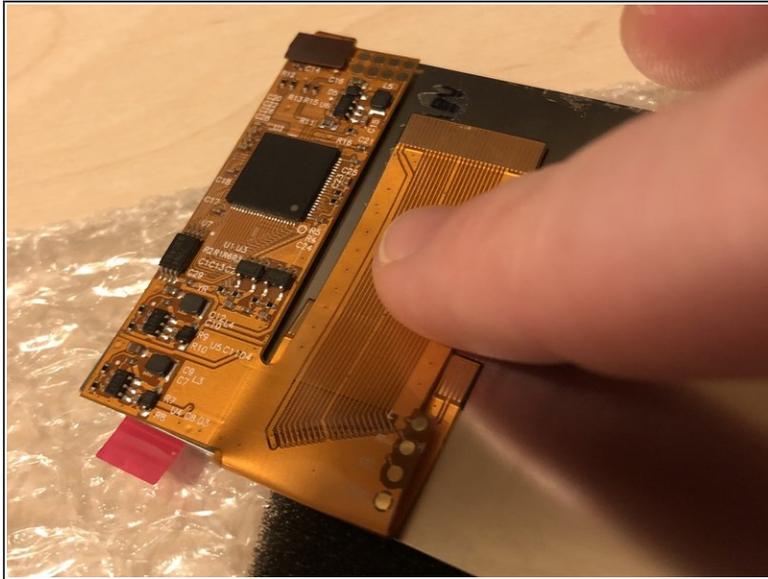
- Fold the adapter to the backside of the screen and check if everything looks good and falls in place. If it looks like the 1st photo, it should be good to go.
- Cut some double side tape for the next step.

Step 15 — Adhere the adapter



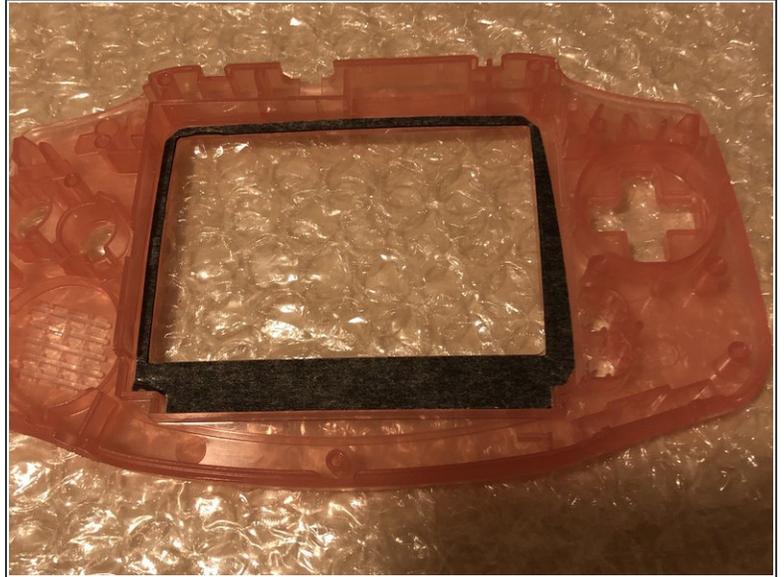
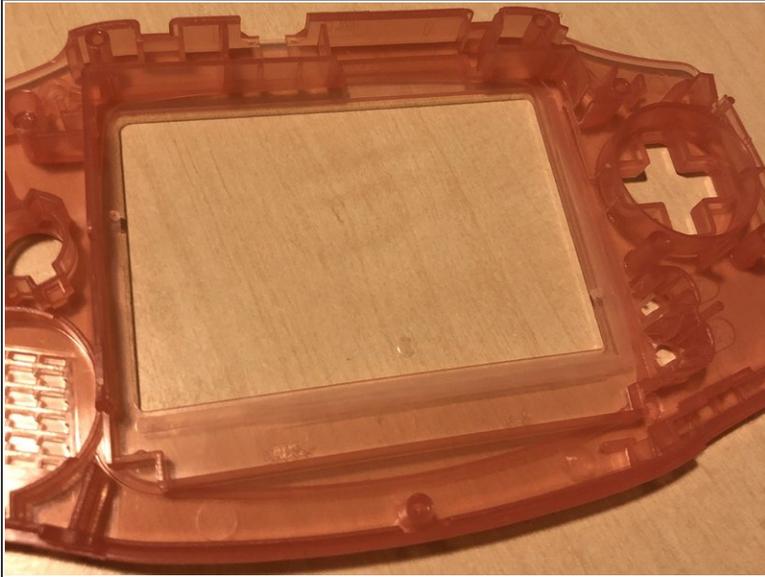
- Paste the double side tape with one side to the backside of the IPS screen (align it with the adapter)!
 - Remove the paper from the tape
 - And adhere the adapter to the backside of the screen, if it looks like the 3rd photo, it's all good to go.
- ⚠** Be sure that the IPS screen is connected with the cable to the adapter! Otherwise it will be difficult to align it correctly.

Step 16 — Prepare adapter for 32 pin motherboard



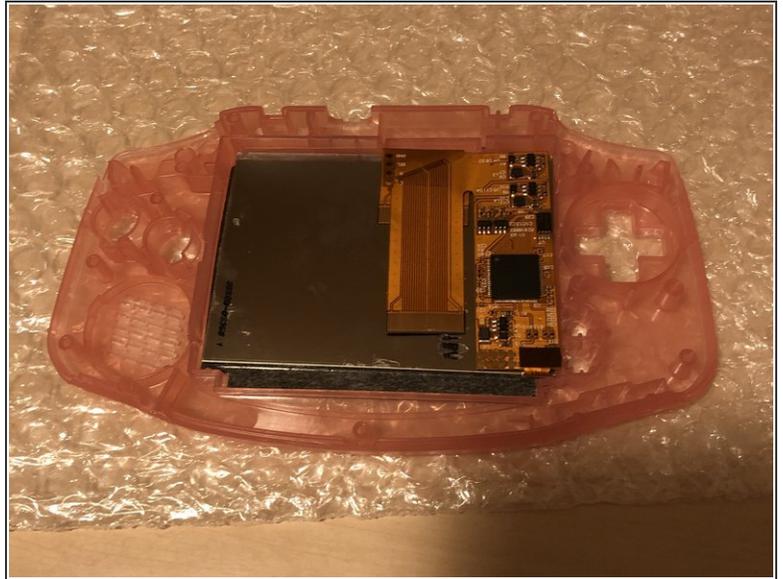
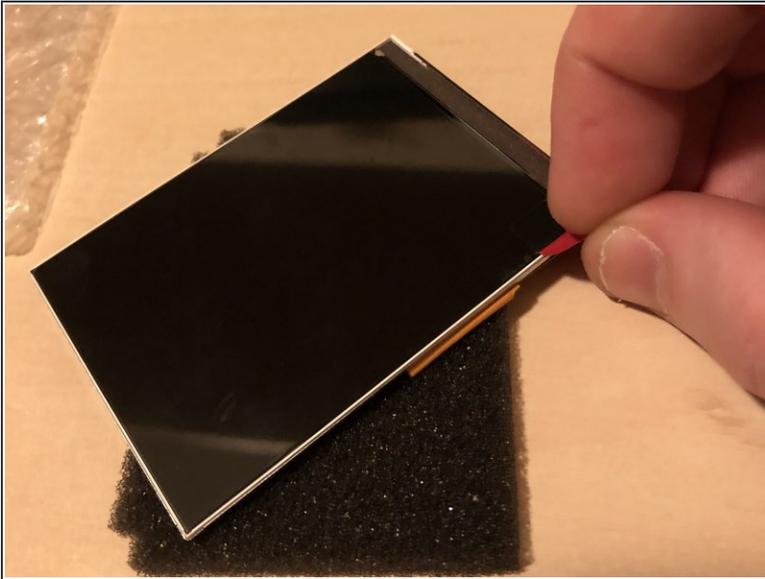
- i** **This is required for 32 Pin motherboards only. Skip this step if you have a 40 pin motherboard!** If you are not sure which motherboard you have, please refer to Google. The 32 pin motherboards start with **1** and the 40 pin motherboards start with **0**.
- Fold the 40 pin cable underneath the adapter as shown in the photos. (only suitable if you have a 32 Pin motherboard!!).
 - For 40 pin motherboard, just leave the cable be, no additional adjustments are required.

Step 17 — Prepare the shell



- You have 2 options. Option 1: buy a pre-trimmed shell. Option 2: Trim the shell by yourself. I have a pre-trimmed shell as it's a very critical step. This guide is meant for pre-trimmed shells only. If you need to trim your own shell, please check on Google what needs to be trimmed and make sure it's trimmed perfectly.
- Put the double side tape in the shell as shown on photo 2. Make sure it's good at it's place.

Step 18 — Place IPS screen in shell

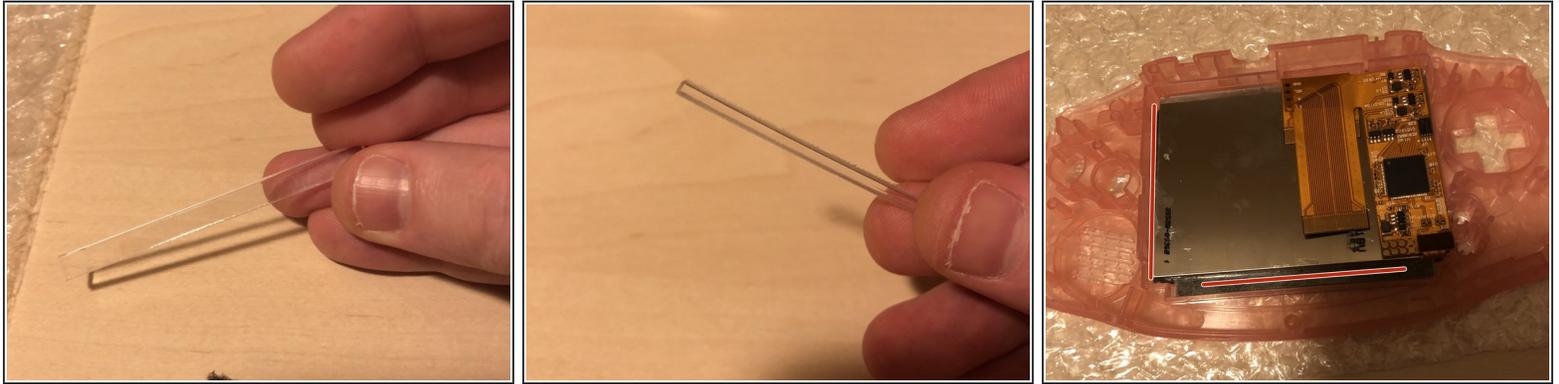


⚠ You are approaching the point of no return if you follow this step!

- Remove the foil from the front of the IPS screen.
- Make sure everything is completely dust free before you continue!
- Place the IPS screen in the shell. Make sure you place it ***EXACTLY*** as shown in photo 2.

⚠ If your screen is shipped with a blue bracket. Please install the bracket to the LCD before you place it in the shell!

Step 19 — Add plastic bars



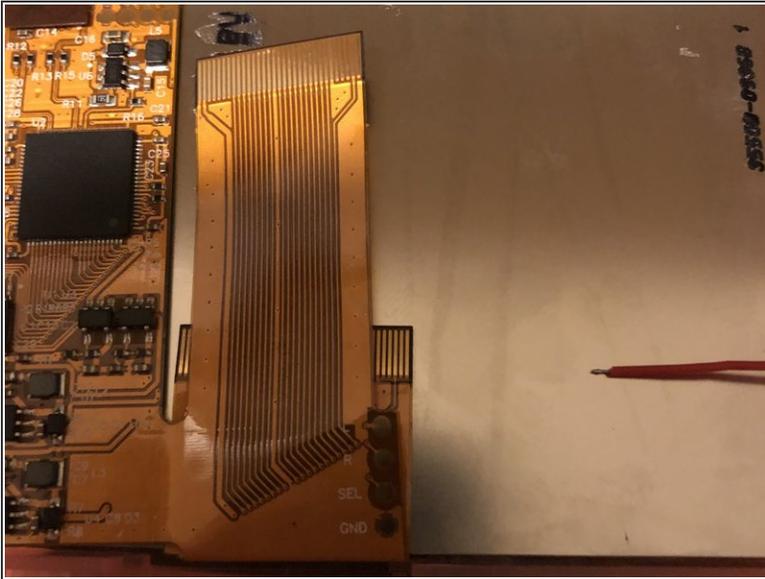
- i** Some of the screens are delivered with a blue bracket, if this is the case. Please skip this step.
- Take the 2 plastic clear bars. You have a thin bar and a somewhat thicker bar.
 - Place the thin plastic bar to the left side of the shell. If it won't fit perfectly in, just leave it be. And the thicker bar needs to be placed at the downside in the shell.

Step 20 — Check screen and place lens



- Turn the shell and check if the IPS screen sits properly. This is your last change to make sure that the screen is dust free!
- Take a new lens and put it in, make sure that everything is dust free before you attach it.

Step 21 — Locate the golden round pads



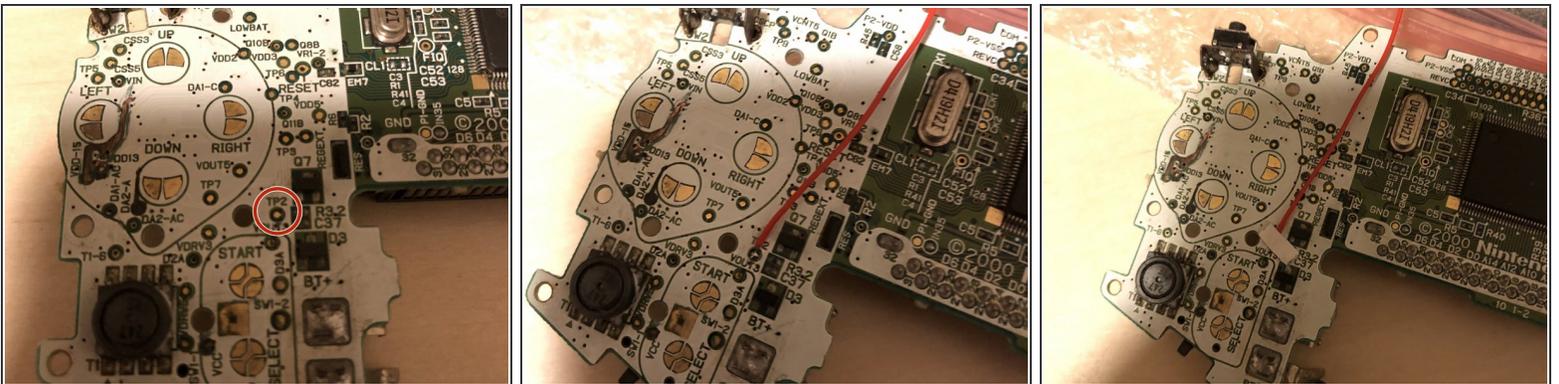
- Check the ribbon cable. You will see 3 golden round pads with the following text next to it. L, R and SEL.
- Red circled = the SEL (Select)
- Blue circled = the R
- Green circled = the L

Step 22 — Solder the cables to the pads



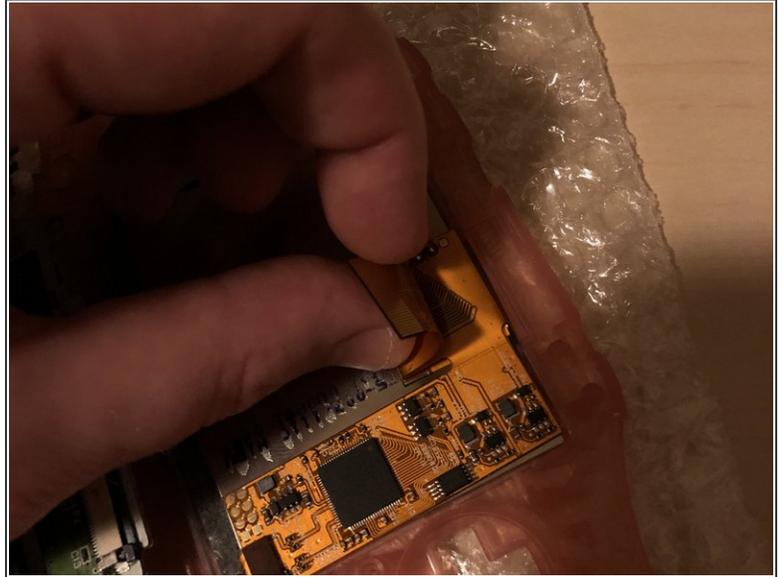
- Put some solder on the pads as shown in the 2nd photo.
- Solder the 3 cables to the pads. I advise to use 3 different cable colours, but if your kit only have red cables, use them.

Step 23 — Solder SEL cable to TP2



- Locate the **TP2** pad on the motherboard. Put some solder on the pad.
- Solder the **SEL** cable to the **TP2** pad on the motherboard.
- For the finishing touch, you can put some tape on it.

Step 24 — Fold cable for 32 pin motherboards



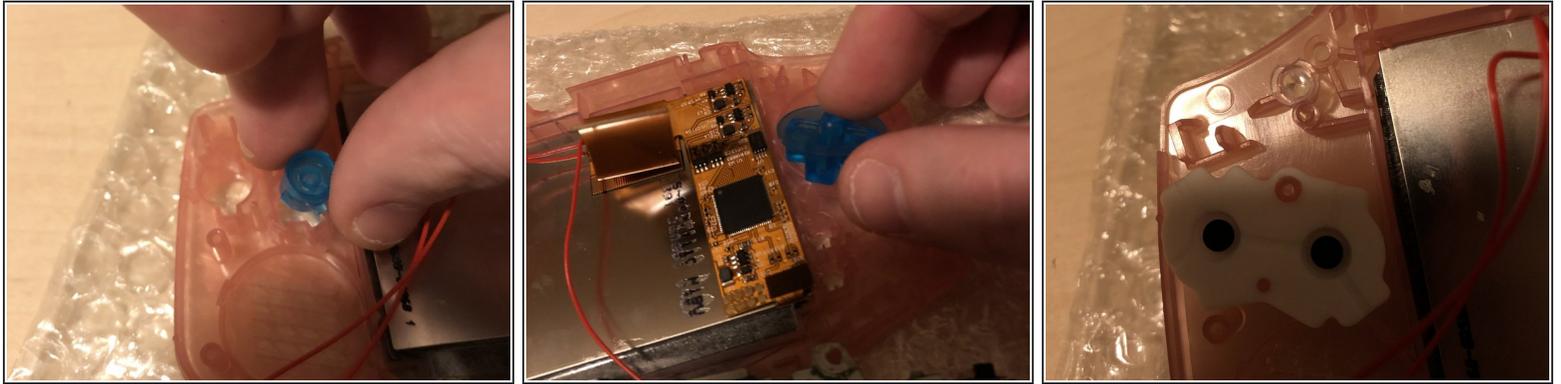
- i** If you have a 40 pin motherboard, you can skip this step. Make sure that the 40 pin cable is correctly attached to the motherboard.
- For 32 pin motherboards, please fold the cable as shown in the pictures.

Step 25 — Connect the cable



- Put the cable in as showed.
- You should be able to bend the cable a bit if required.
- i** This is shown for 32 pin motherboards but the 40 pin cable should fit as easily as this one.

Step 26 — Add buttons



- Before you put the motherboard in, don't forget to put in the buttons first!
- And don't forget the plastic LED cover and rubbers.

Step 27 — Attach motherboard to shell



- If you got some black foam in the kit. Just place it in now, before you attach the motherboard. This is not necessary, but will protect the motherboard and the cables soldered to the adapter.
 - Attach the 2 screws circled in red. Be aware.
 - The 2 green arrow shows how you can route the **L and R** cables. The **L** cable needs to go the **RIGHT** side and the **R** cable needs to go to the **LEFT** side of the gameboy in this case. *(This is because we have flipped the gameboy as shown in the picture, it's mirrored)!!*
 - The last pictures shows when it's all good and when you are ready to follow the next step.
- Do not forget to install the cable to the motherboard and to lock the connector.
- Some models have a third screw circled in blue.

Step 28 — Solder L and R cables to motherboard



- Solder the R cable to the left side. Please check the first picture to which solder pad it needs to be soldered on.
- Solder the L cable to the Right side. Please check the second picture to which solder pad it needs to be soldered on.
- Check the red arrows to confirm if it's all good. If it looks like the last photo, you are good to go.

Step 29 — Put in the buttons and screws



- If the cables won't seat where you want them to be, just use some tape again.
- Now put on the other buttons!
- Put in the screws back again, circled in red. Please be aware, the blue circled screw is smaller than all the other screws.

Step 30 — Test the Gameboy



- Put in some batteries and test the gameboy. When it looks like the 1st picture, it's a success!
- Hold the SELECT button and press the L button to decrease the brightness. Hold the SELECT button and press the R button to increase the brightness.
- ⓘ You can click multiple times to increase and decrease the brightness.
- Put in a game and test if it works. If it's working fine, congratulations with your IPS screen!

And that's all! If everything went well, you should have a backlight screen installed in your GBA.