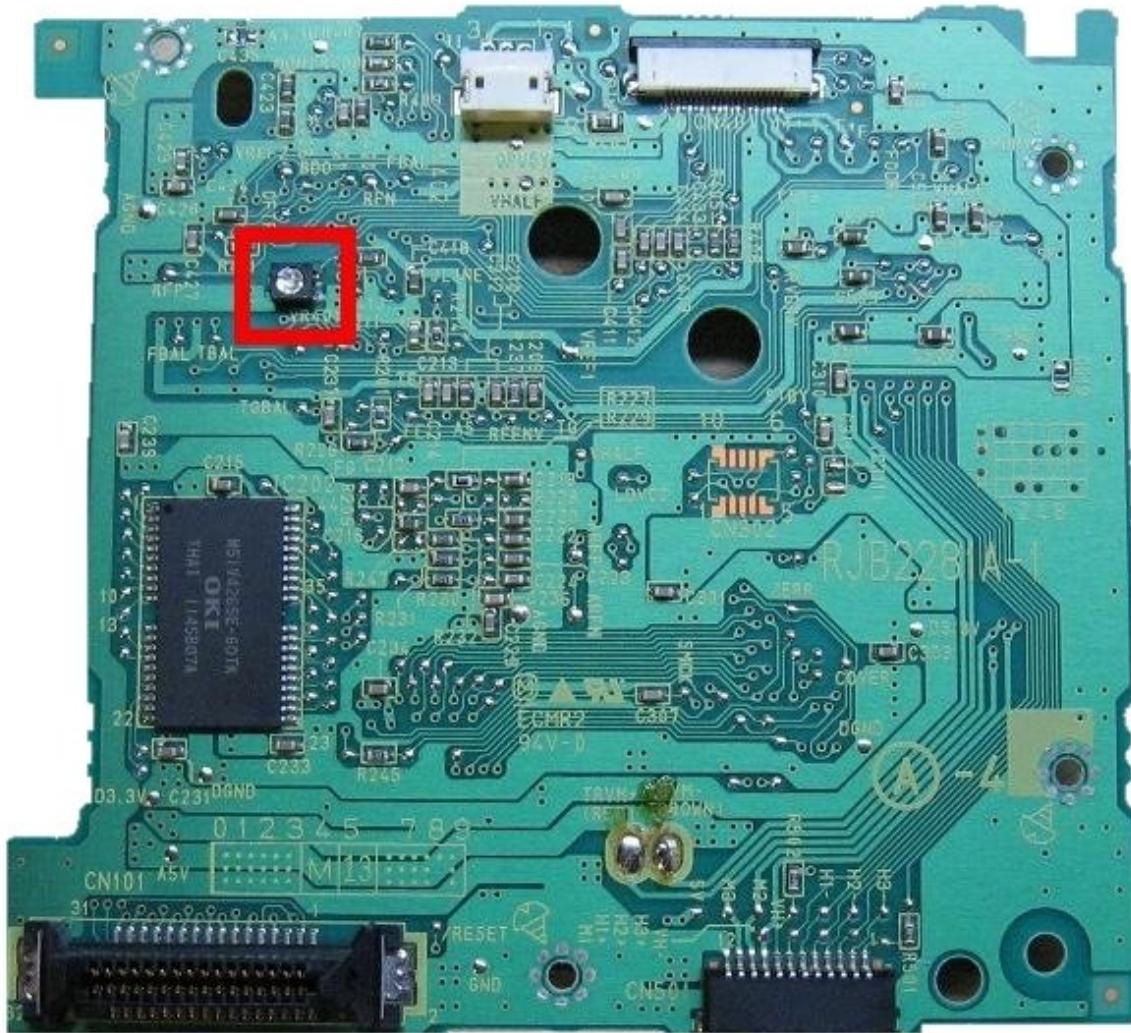




Optical Laser Lens Power Adjustment

Written By: agronbac



INTRODUCTION

This fixes the problem of game discs not being read properly.

TOOLS:

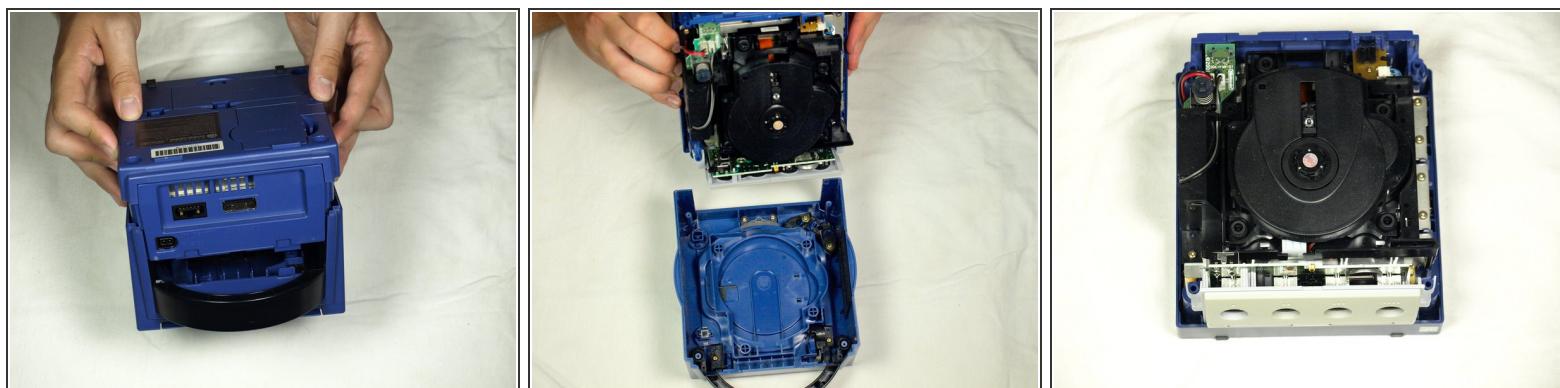
- [Nintendo GameCube Bit Tool](#) (1)
- [Phillips #1 Screwdriver](#) (1)
- [Phillips #2 Screwdriver](#) (1)

Step 1 — Top Case



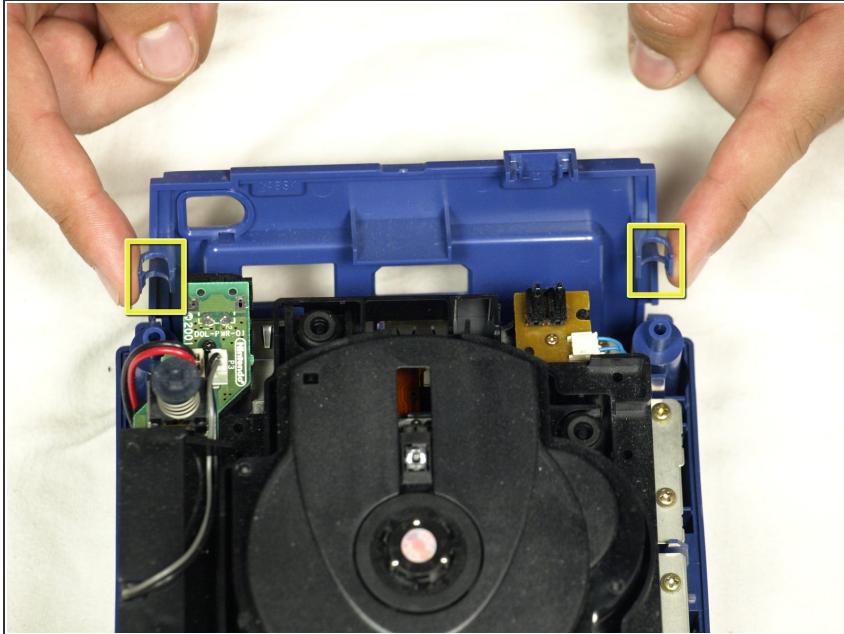
- Turn over the Gamecube so that the bottom side is facing up.
- Locate the four screws (circled in red) on each corner of the device. Then, use a 4.5 mm Gamebit screwdriver to remove all four screws.

Step 2



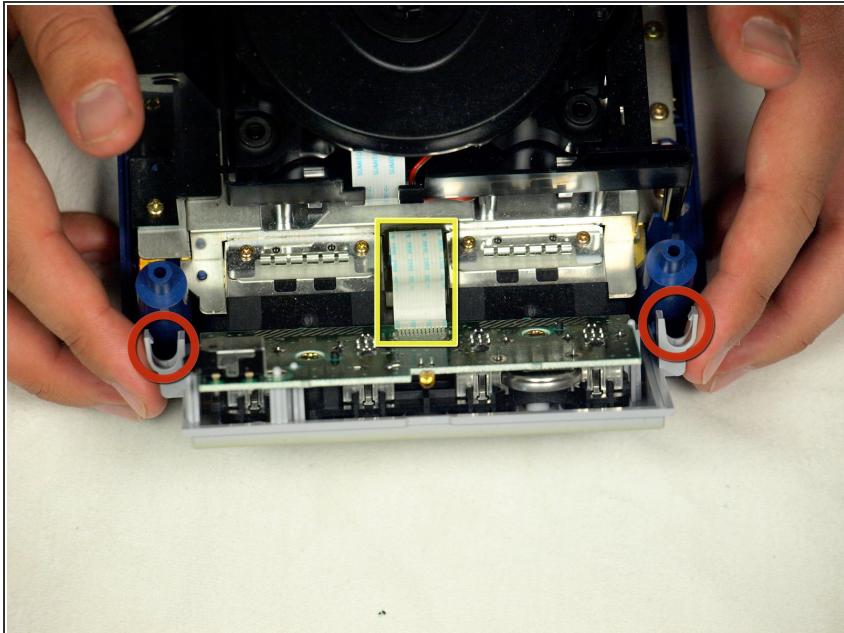
- With the bottom side of the GameCube facing upward and the screws removed, carefully pull the outer shell of the unit away from the top half. Then place the inside of the unit facing up.

Step 3 — Front and Back Panel



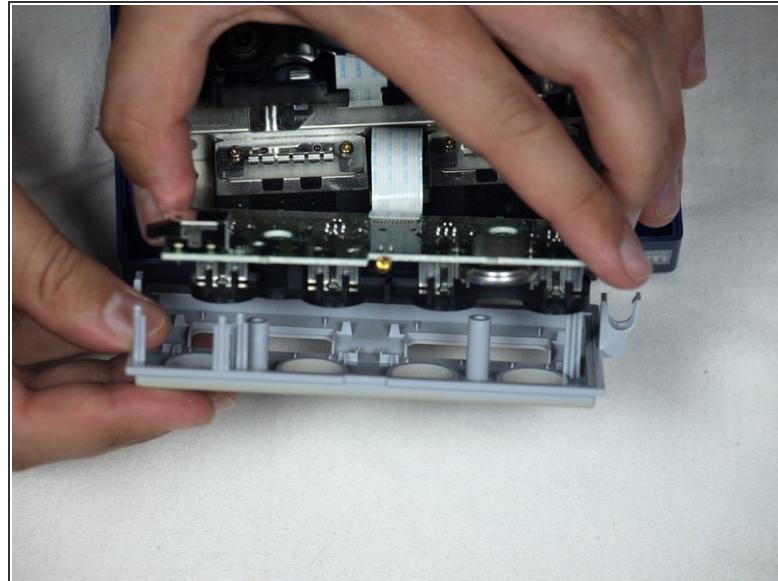
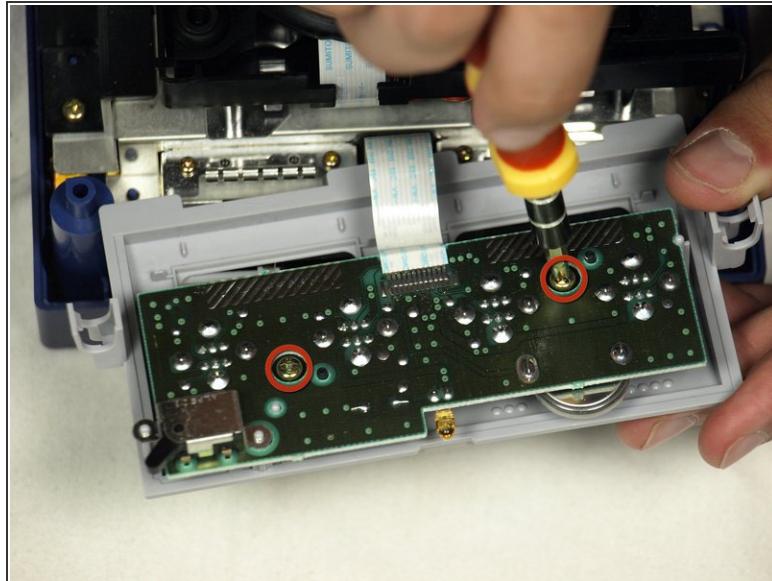
- Gently press down on the clips located on either side of the the back panel, as shown, and carefully remove it from the main part of the device.

Step 4



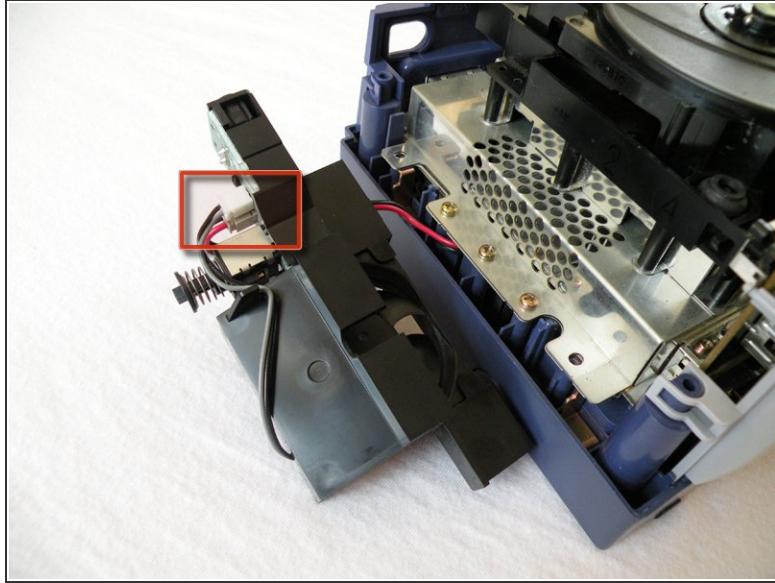
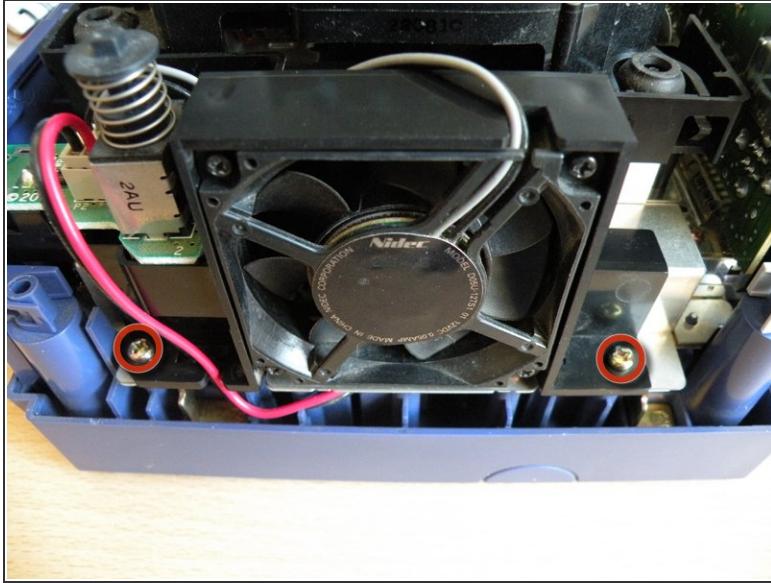
- With the back panel removed, carefully unclip the controller ports at the front of the unit.
 - ⚠ A ribbon cable (outlined in yellow) is still attached to the unit. **Do not disconnect this cable.**
- **i** Controller ports are where the controllers plug into the game console, and are a half circular shape.

Step 5



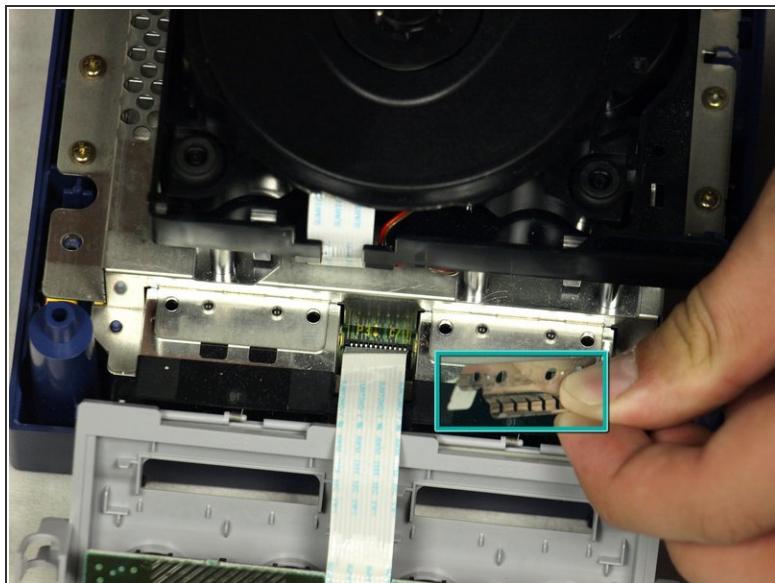
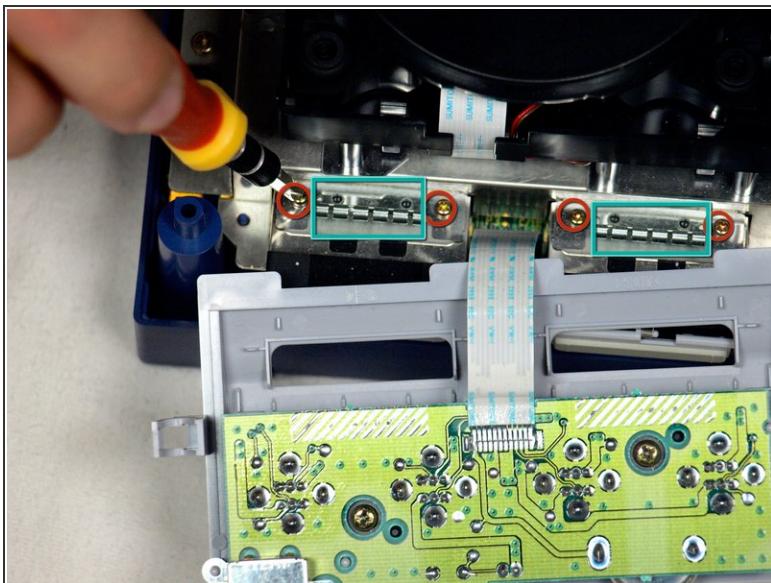
- Use a Phillips screwdriver to remove the two 2 screws(circled in red) that are located on the back of the control port.
- Carefully separate the gray outer casing of the control port and the circuit board.

Step 6 — Optical Drive Assembly



- The left side of the unit contains the cooling fan and its housing. Carefully remove the two (2) screws attaching the cooling fan housing to the unit.
- **Do not detach the red and black cooling fan wire from the main unit. (red wire)**

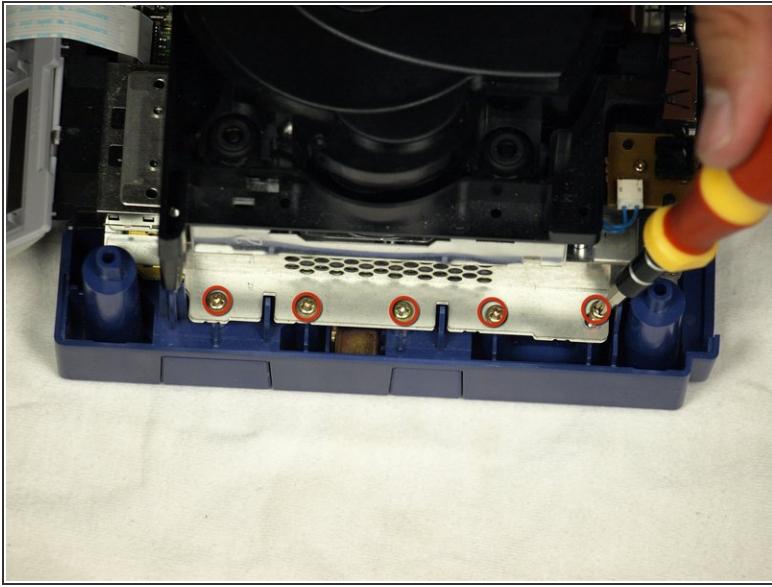
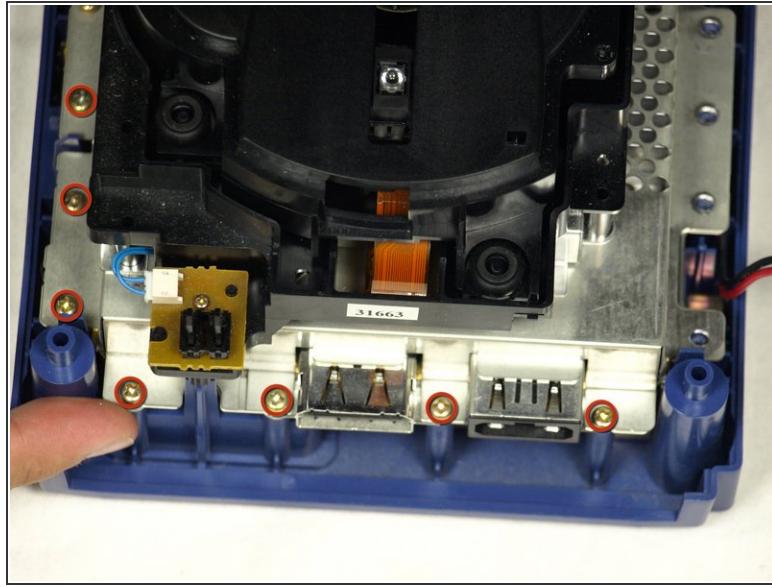
Step 7



- Remove the four (4) Phillips #1 screws retaining the ground springs (outlined in teal).
- Carefully remove the ground springs from the main unit as shown in the second photograph.

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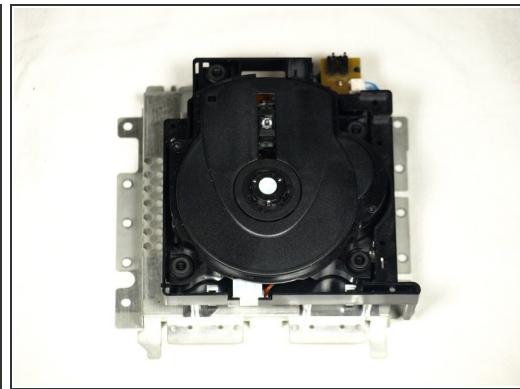
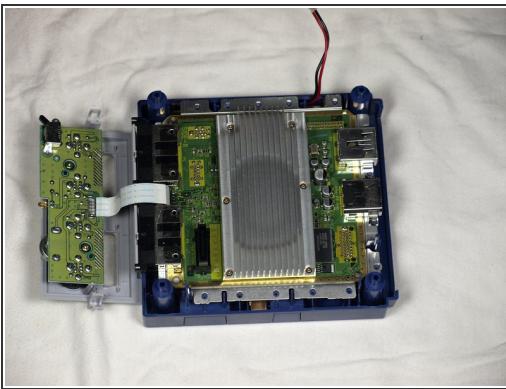
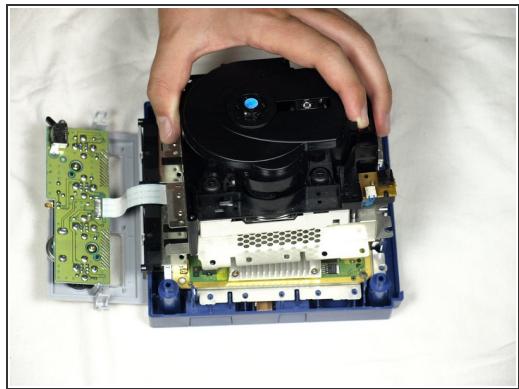
Step 8



(i) The optical drive is secured to a metal plate.

- Using a Phillips #2 screwdriver, unscrew the twelve (12) screws that are around the outer edge of the optical drive (circled in red).

Step 9

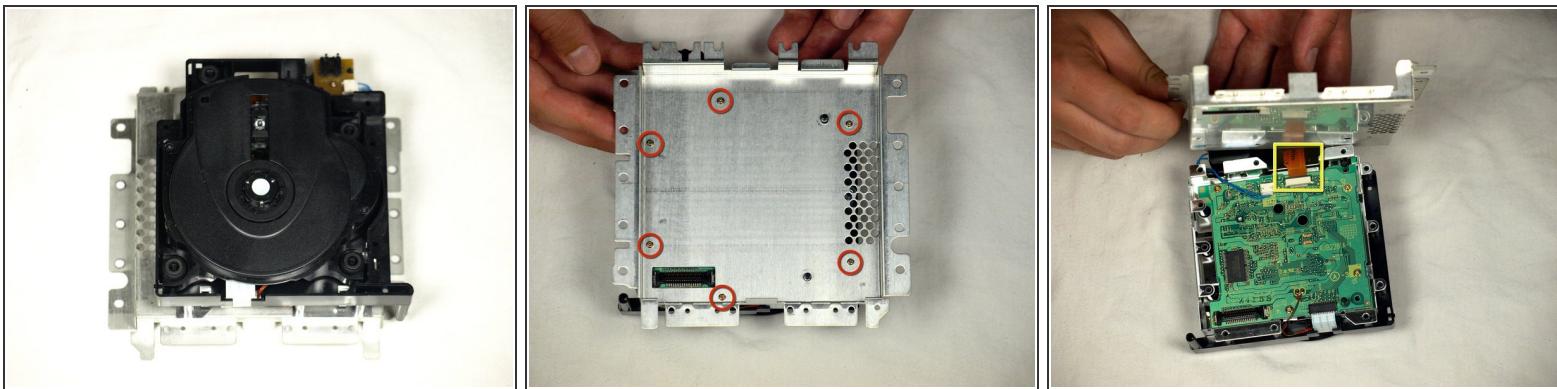


- Carefully separate the optical drive assembly from the rest of the GameCube unit.

(i) The optical drive assembly is secured to the motherboard underneath by a slot; some force may be required to carefully free the assembly.

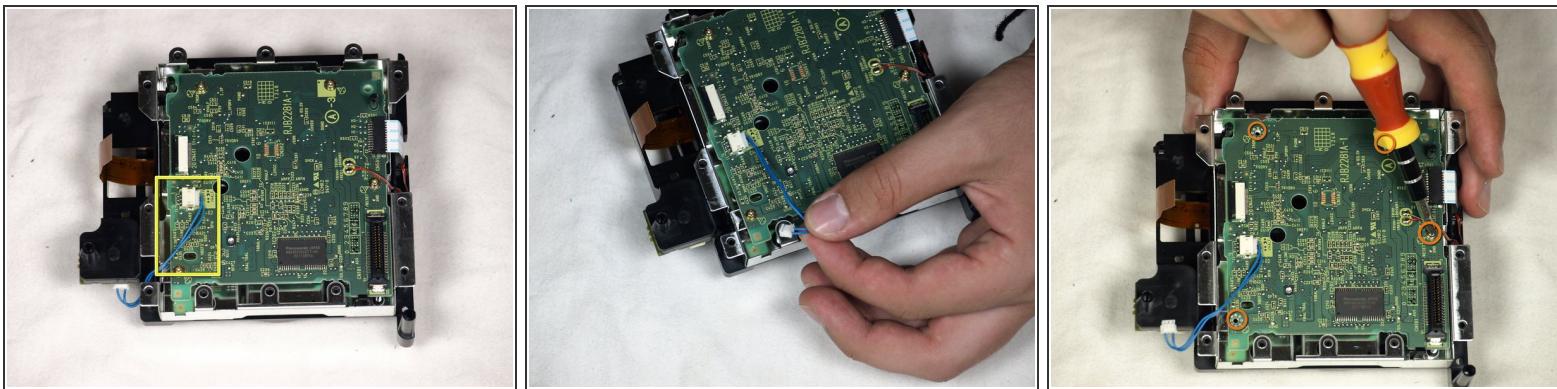
(i) The metal plate and the actual optical drive will remain attached (picture 3).

Step 10 — Optical Drive Assembly



- At this point, your optical drive assembly should be separated from your GameCube (picture 1).
- Flip the optical drive assembly upside down
- Shown in picture 2, remove the 6 Phillips #1 screws with a philips screwdriver.
- Once the screws are removed, gently lift and remove the metal plate (shown in picture 3).
- **Be careful** not to disturb the brown ribbon cable (highlighted in the yellow).

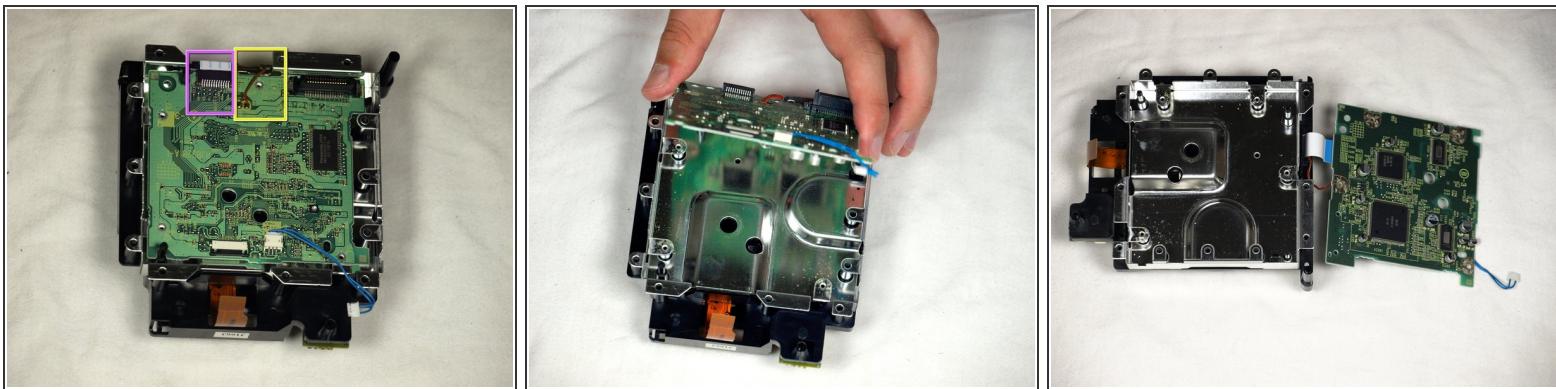
Step 11



- Remove the blue wire by gently pulling.
- Disconnect the Brown cable. This is done by gently pulling the black tab away from the white plastic. This will loosen the tension on the brown cable allowing it to gently be slid away from the tab.
- Shown in the third picture, remove the 4 Phillips #1 screws connecting the circuit board to the optical drive assembly.

(i) The fourth screw is located behind the screwdriver in the third picture (**highlighted in the orange circle**).

Step 12

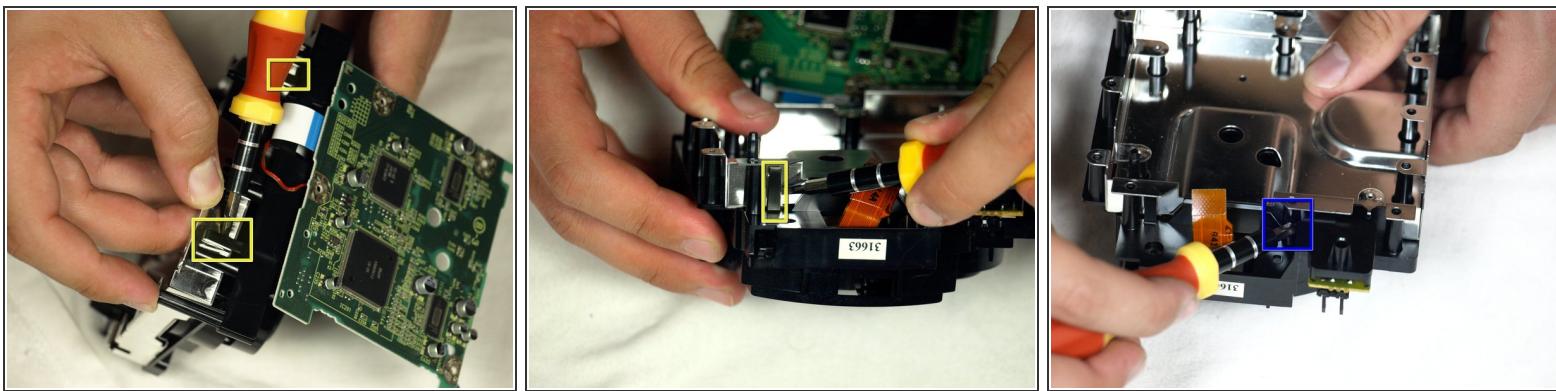


- Gently remove the circuit board (the large green square) as shown in the three pictures.

⚠ DO NOT SEPARATE the red wire or the white ribbon cable connecting the circuit board to the metal plate.

- Red Wire
- White ribbon Cable

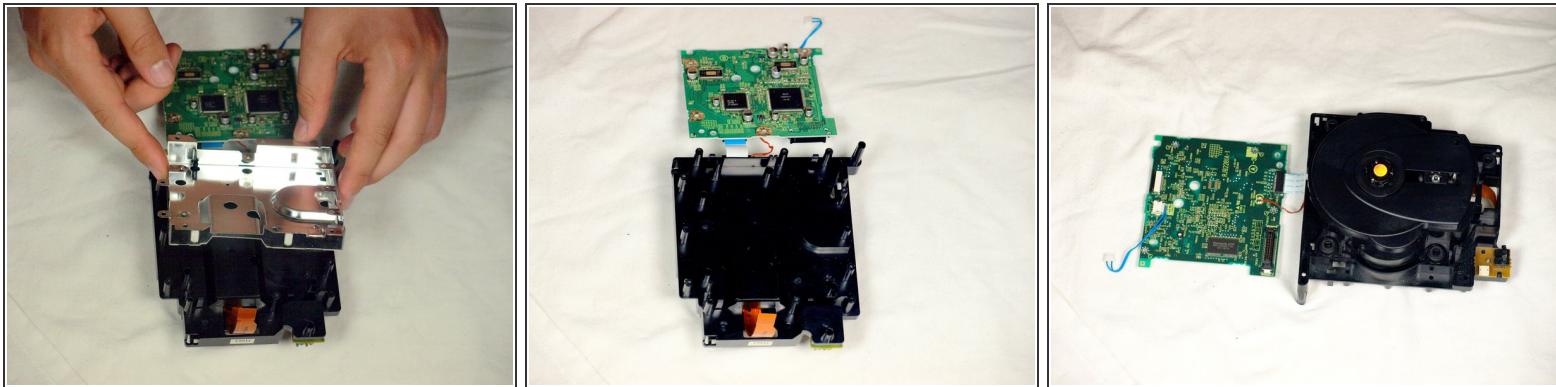
Step 13



- Use a flathead screwdriver to carefully release the four plastic clips holding the drive assembly together.

(i) The last clip can be rather hard to find. Carefully use a screwdriver as leverage to unscrew and release the last clip, which is **highlighted in blue** (Picture 3).

Step 14



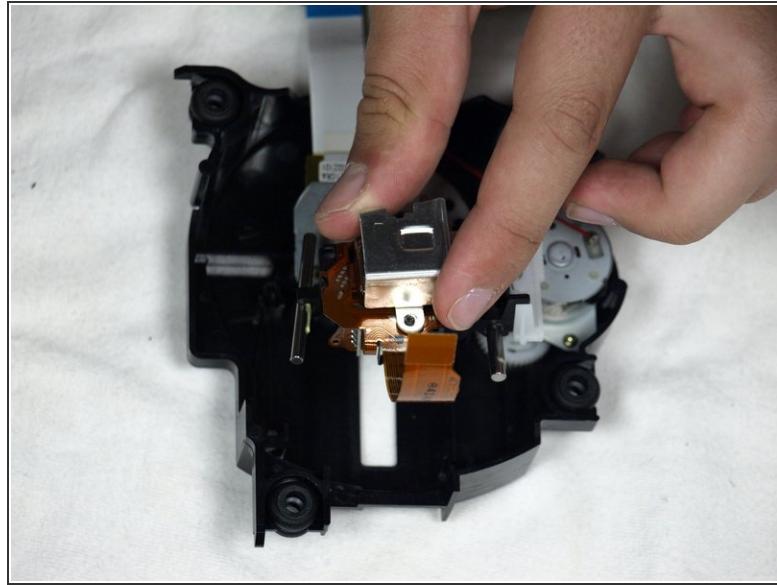
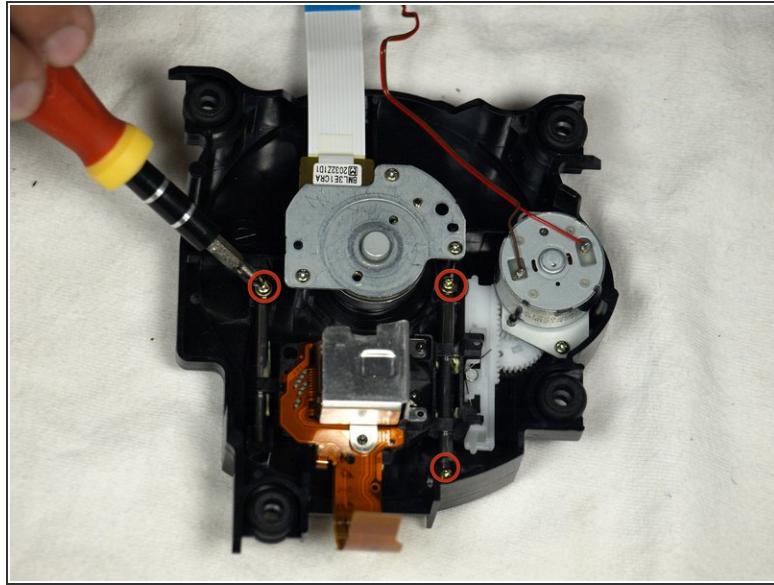
- Gently lift the metal plate off of the drive assembly (shown in the first picture).
- ⚠ Be careful not to sever the red wire or the white ribbon cable still attached to the two halves of the drive assembly.
- Then flip the two halves of the drive assembly upside down as shown in the third picture.

Step 15



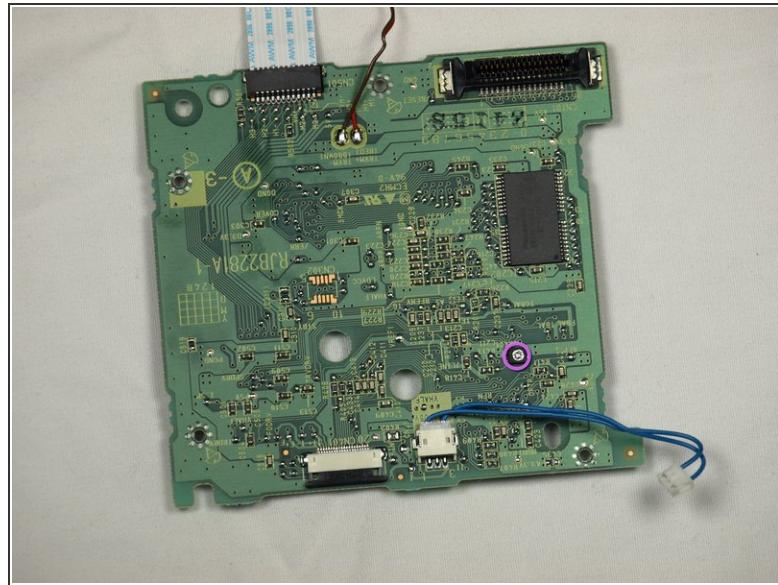
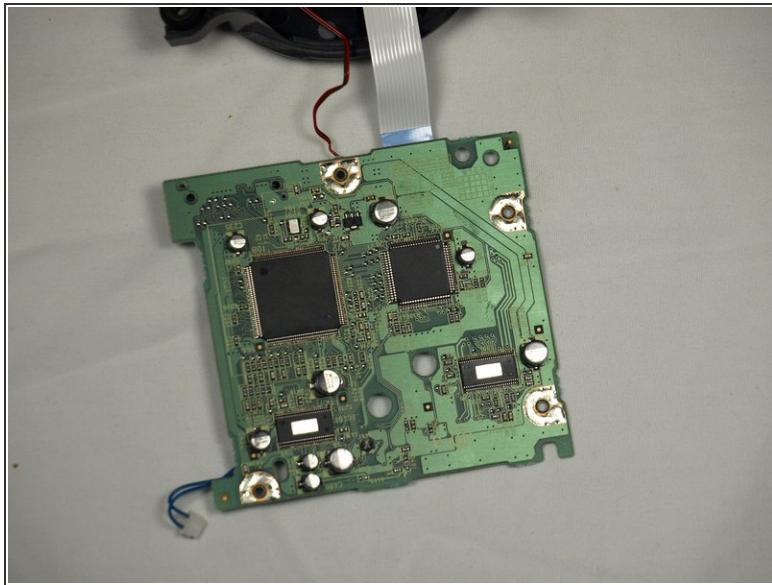
- Use a flathead screwdriver to release the two clips located on the back half of the drive assembly.
- ⓘ The final clip doesn't need to be released; the top half of the drive assembly will slide away from the lower half.
- Finish removing the top half of the drive assembly from the base.
- ⚠ Be careful not to detach the red wire or the white ribbon cable still attached.

Step 16



- Once the top half of the drive assembly is detached, turn it upside down.
- Using a philips screwdriver, carefully remove the 3 final screws located near the bars of the lens assembly.
- Once the the three final screws are removed, the lens assembly can be extracted (as shown in the second picture).

Step 17 — Optical Laser Lens Power Adjustment



- Rotate the assembly so that the green circuit board is facing you as shown in the first picture.
- Flip board over so it is oriented as shown in the second picture.
- Using a Phillips #1 Screwdriver, turn the small knob very slightly *counter-clockwise*—a few degrees to, at most, one-quarter turn.

(i) You can find instructions for testing to make sure your repair worked at [this link](#).

To reassemble your device, follow these instructions in reverse order.