



# NVIDIA SHIELD Portable Motherboard Replacement

This guide explains how to replace the...

Written By: Marc Perez



## INTRODUCTION

This guide explains how to replace the motherboard in the NVIDIA SHIELD Portable or NSP (model number: 945-12450-0001-000), a handheld game console released by nVidia in 2013. The motherboard allows all the components of the controller to communicate with one another. Signs of motherboard failure can include: display malfunctioning, error codes appearing, system locking or rebooting, or external ports failing. By following the steps in this guide, you will be able to successfully access and replace the motherboard in your NVIDIA SHIELD Portable.

---

### TOOLS:

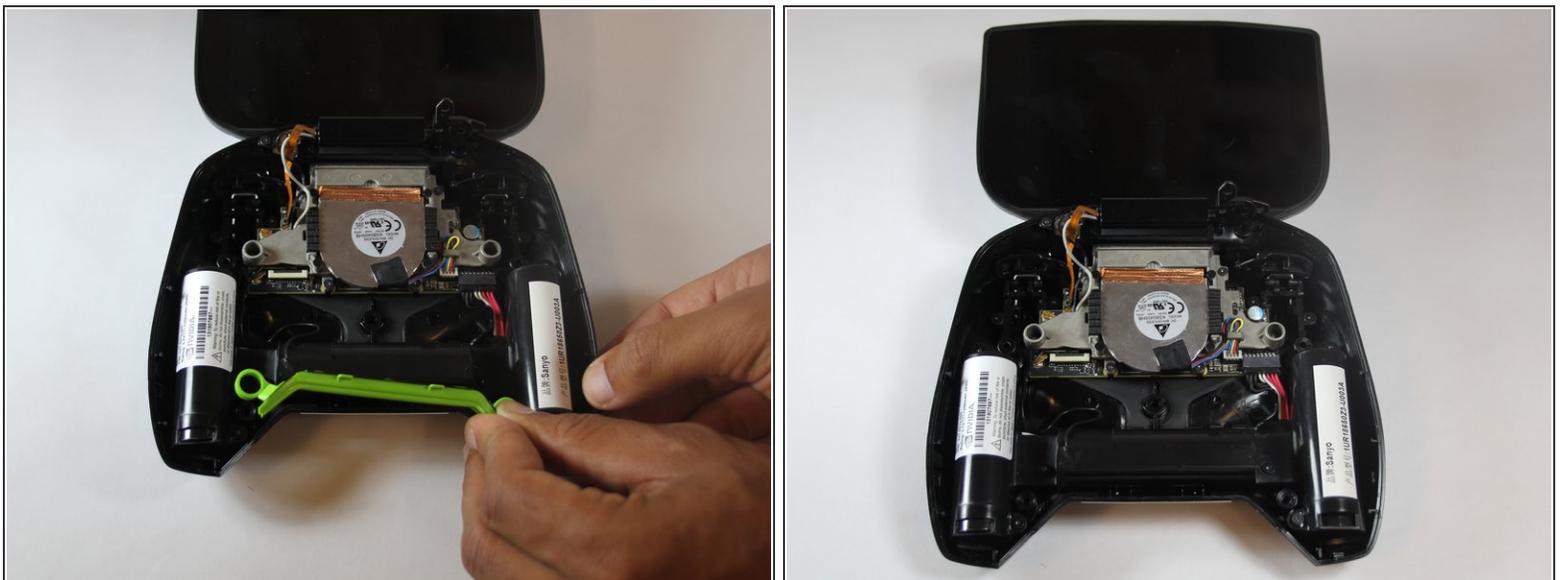
- [T5 Torx Screwdriver](#) (1)
  - [Spudger](#) (1)
  - [Tweezers](#) (1)
-

## Step 1 — Remove Front Panel



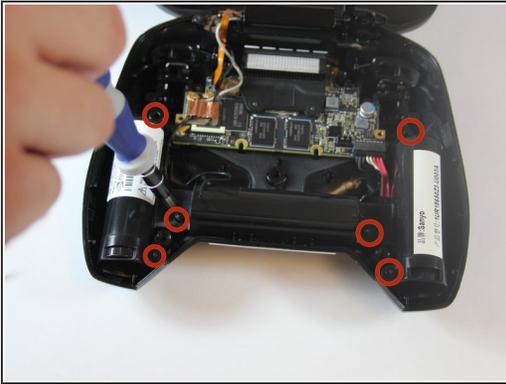
- Remove the seven 6.4mm T5 Torx screws from the back panel.
- Use the spudger to separate the front and back panels.

## Step 2 — Remove Green Grill



- ⓘ The green grill is not screwed in so it can be pulled right out.

### Step 3 — Remove Battery Cables



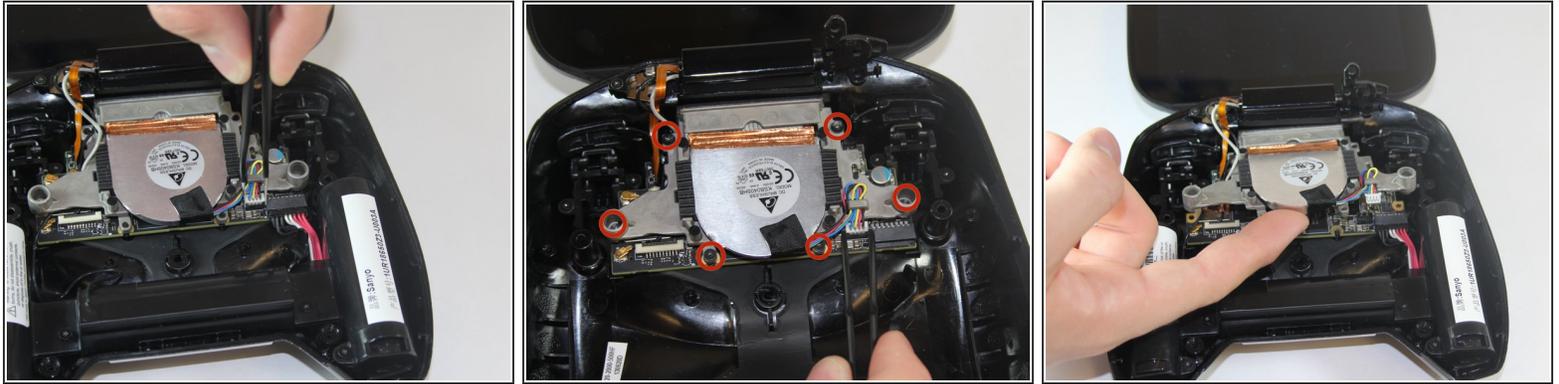
- Remove the six 6.5mm T5 Torx screws.
- Disconnect the power wires.
- Peel back the copper tape and disconnect the black and white wires.

### Step 4 — Remove Battery Apparatus



- Pull the battery apparatus out once all cables are removed.

## Step 5 — Removing Fan



**i** Cooling is important for electronics, the last thing they want is to overheat.

- Remove the two 7.3mm and four 8.4mm T5 Torx screws and disconnect the power cable.
- Lift the fan free after the screws and cable are removed.

## Step 6 — Removing Logic Board



**i** The large board under the back case is the motherboard.

- Using your T5 Torx screwdriver, remove six screws from the motherboard—two 7.3 mm screws and four 8.4 mm screws.
- Simply pull gently on the edges of the board, wiggling it if necessary so as not to damage the ports at the top of the board.

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

