

Hello Friends~!

We now have a working method to achieve ROOT on STOCK Firmware!

A script has been made that can boot your shield into the bootloader, erase the old boot, flash the new boot, and install your choice of Magisk apk for you. The script is also able to revert you back to the stock boot image if needed.

Takes only a minute or two depending if you already have adb installed, fastboot drivers setup, and bootloader unlocked. (The guide will walk you through this if you are new)

Rooting Your Shield Will Break AI Upscaling and Dolby Vision. You /Cannot/ Lock the bootloader while rooted, you can only Lock the bootloader when you have the stock boot Image installed. This tool simply makes it easier to "Root" and to Revert back to Stock when done, so you can use your AI Enhanced Features again.

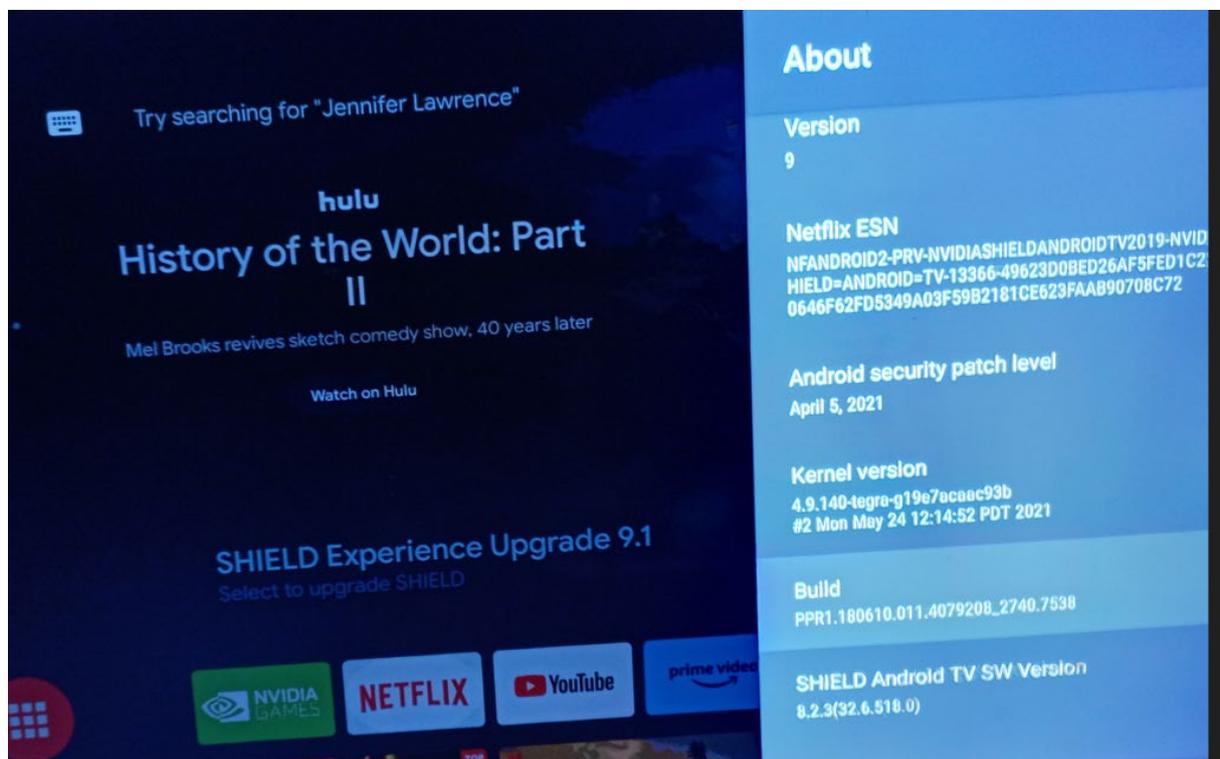
Spoiler: GUIDE

HOW TO ROOT:

If you are already running the STOCK firmware version you want to ROOT, Skip to step 2.

Spoiler: HOW TO CHECK YOUR INSTALLED FIRMWARE VERSION

You can check your currently installed firmware on the shield by going into Settings, selecting About, then scroll to the bottom.



You will see a section called SHIELD Android TV SW Version, this will show your installed FW

STEP 1:

Select a STOCK firmware from this [THREAD](#), and fully install it.

STEP 2:

Download the BOOT MOD that correlates to your installed STOCK firmware.

Spoiler: BOOT MODS

If you want to build your own "Boot Mod" the instructions are [HERE](#)

Spoiler: 2019 PRO (16 GB MODEL)

Spoiler: 9.1.1

[9.1.1mods.zip](#)



drive.google.com

Spoiler: 9.1

[9.1mods.zip](#)



drive.google.com

Spoiler: 9.0

[9.0.0mods.zip](#)



drive.google.com

Spoiler: 8.2.3

[8.2.3mods.zip](#)



drive.google.com

Spoiler: 2017 (16 GB MODEL)

Special Thanks to [@Manzing](#) for obtaining the 9.1 and 9.1.1 images for us!

Spoiler: 9.1.1

[9.1.1mods2017.zip](#)



drive.google.com

Spoiler: 9.1

[9.1mods2017.zip](#)



drive.google.com

Spoiler: 9.0

[9.0.0mods2017.zip](#)



drive.google.com

Spoiler: 8.2.3

[8.2.3mods2017.zip](#)



drive.google.com

Spoiler: 2015 (16 GB MODEL & 500 GB MODEL)

Special thanks to [@I did it just tmrrow](#) for taking the time to download from gameworks, patch with magisk, and install the 2015 version, and verified it works [HERE](#) as well as they verified the hashes were the same for the boot.img of the 500gb and 16gb boot.img

Spoiler: 9.0.0

[9.0.0-2015-MODS.zip](#)



drive.google.com

If you want me to add more, let me know.

STEP 3:

Make sure you have usb debugging enabled in settings and your shield is ON.

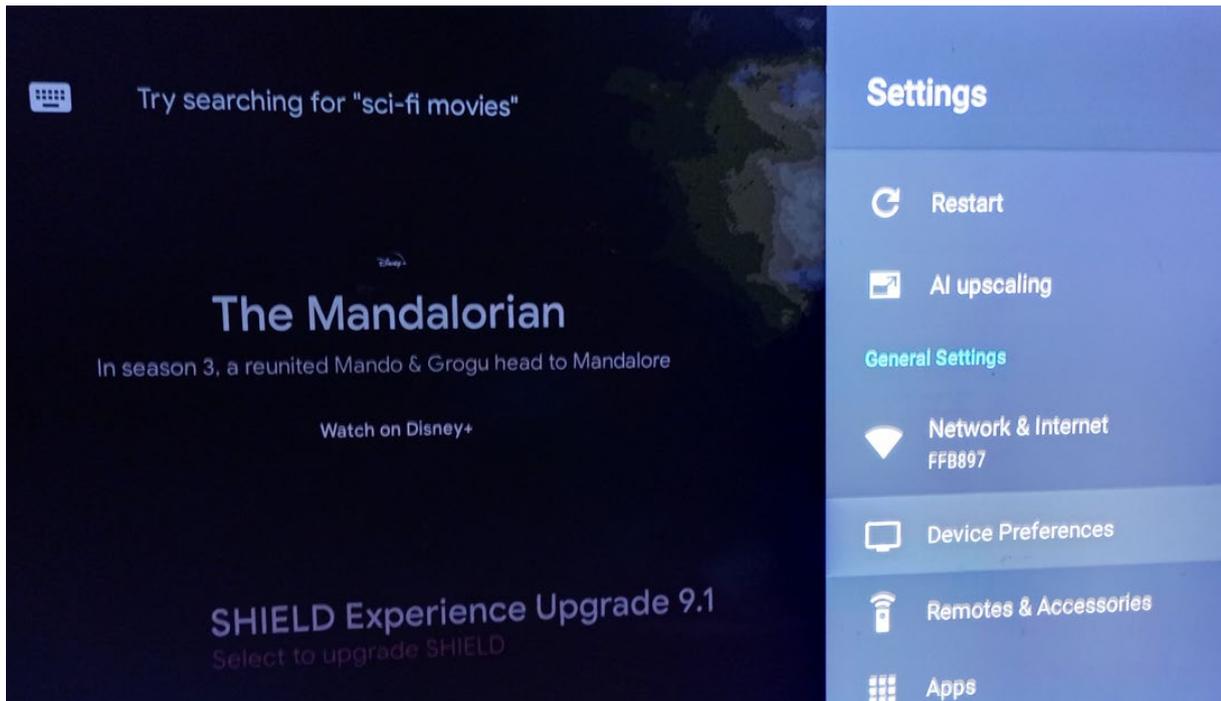
Spoiler: IF YOU NEED HELP WITH THIS STEP



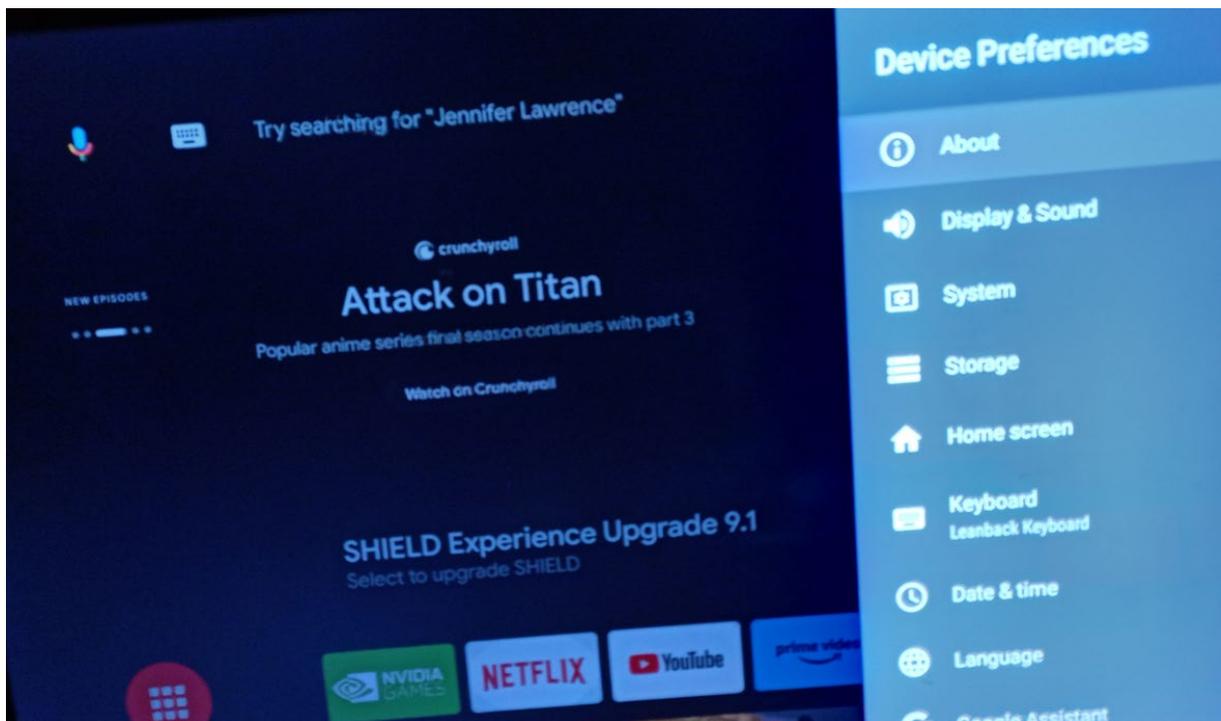
This adds an additional Minute to setup time

Attach a USB-C cable to your shield and plug it into your PC.

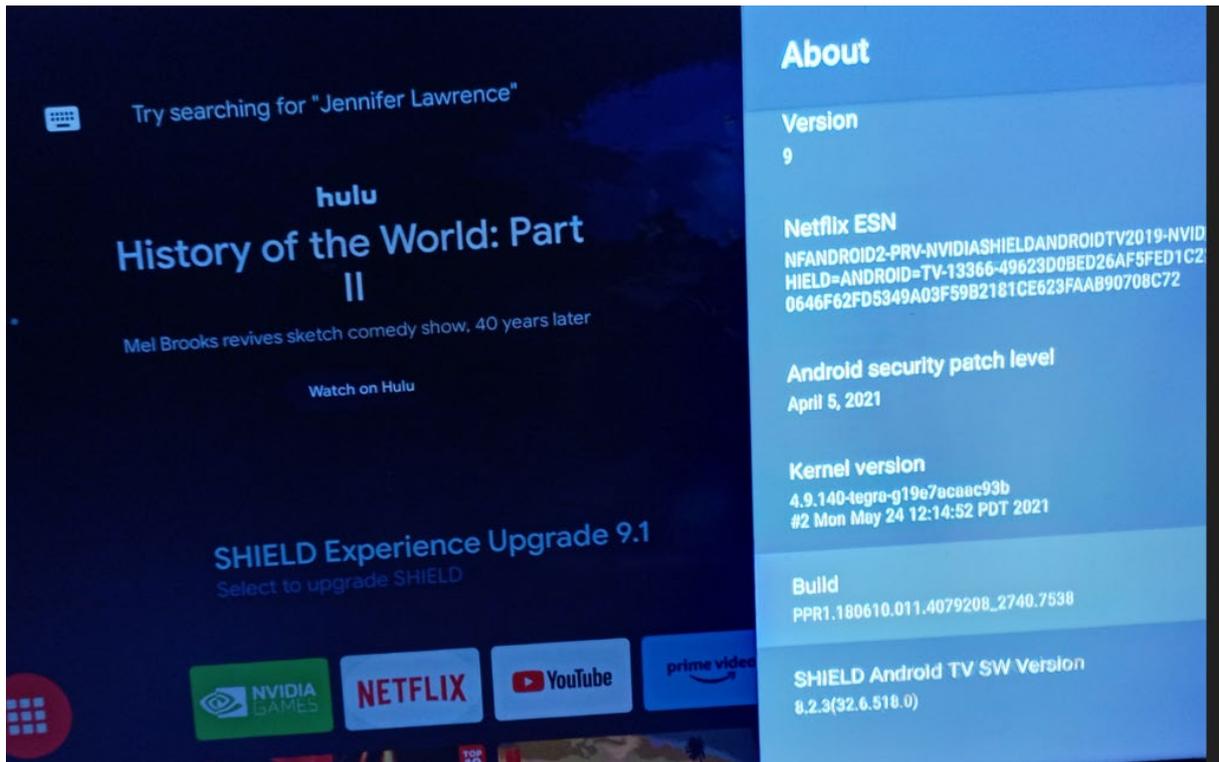
(Use the USB port furthest away from the HDMI Cable)



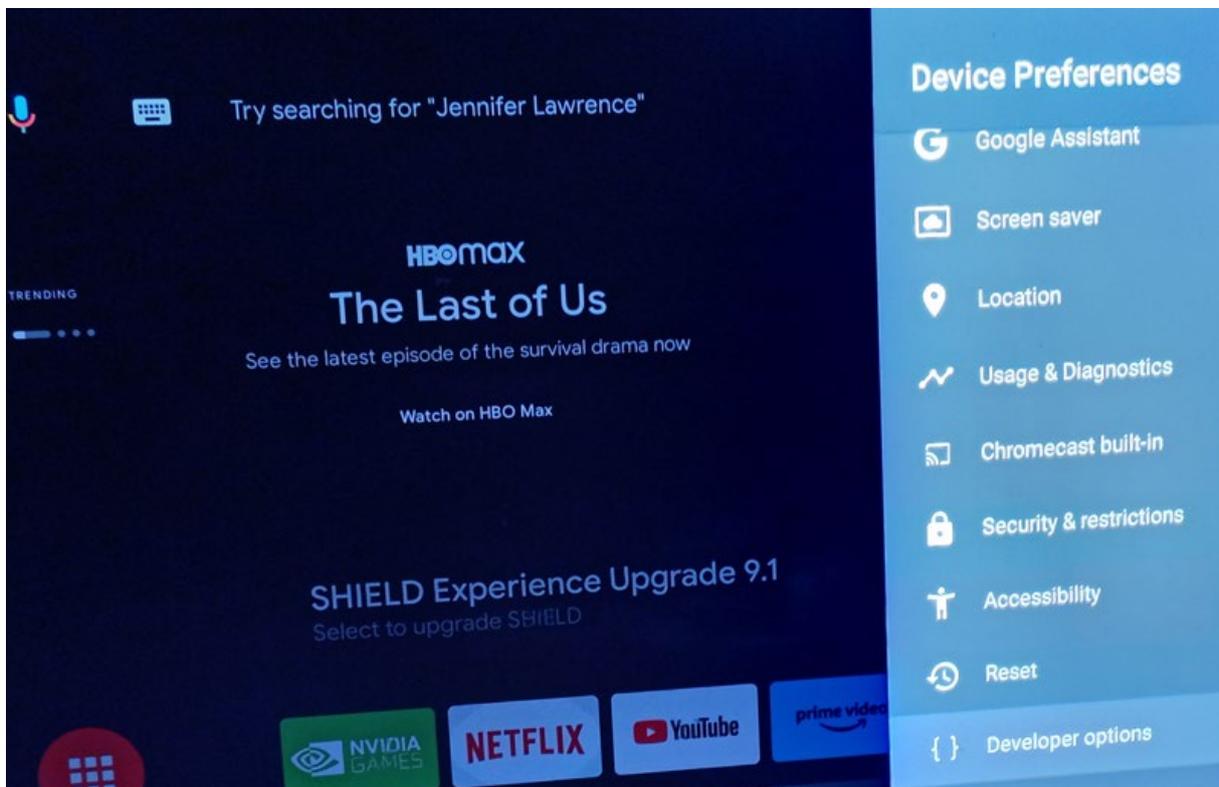
Go into settings, select device preferences



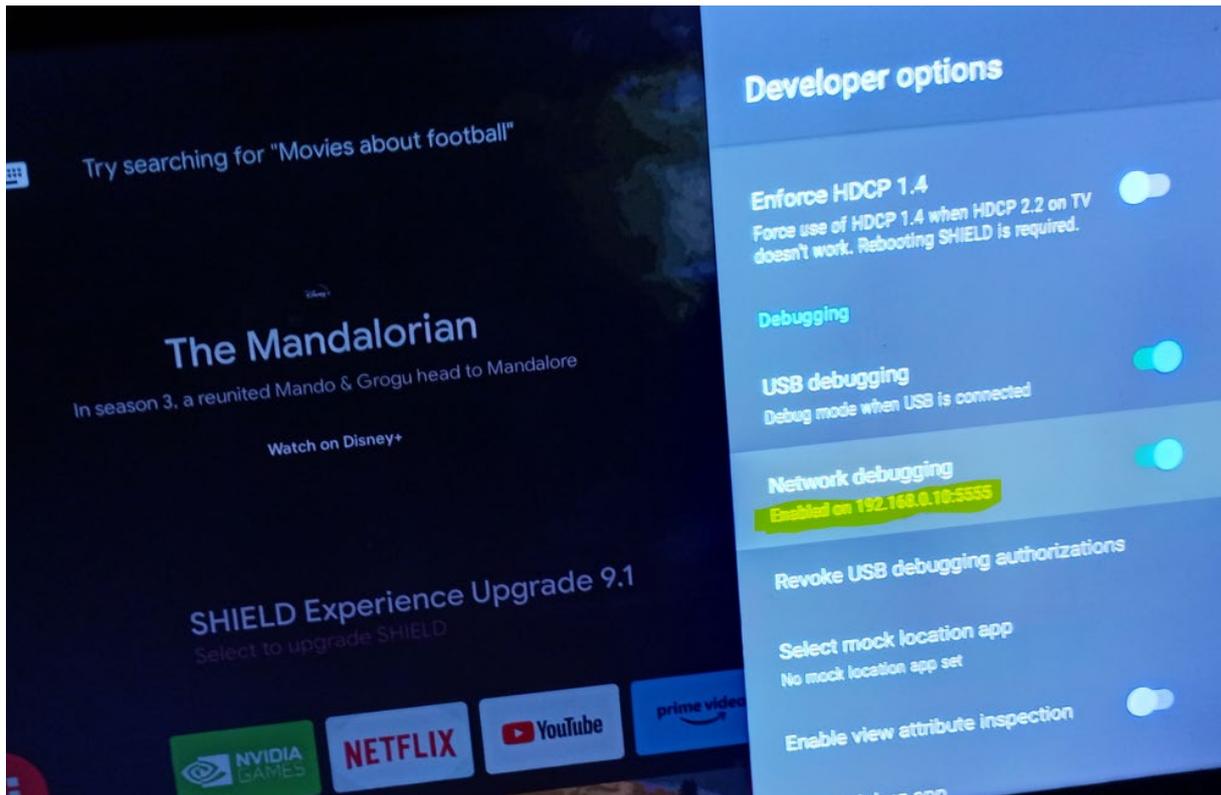
Select About, then hit the build number 7 times



Back out to device preferences and now select developer options



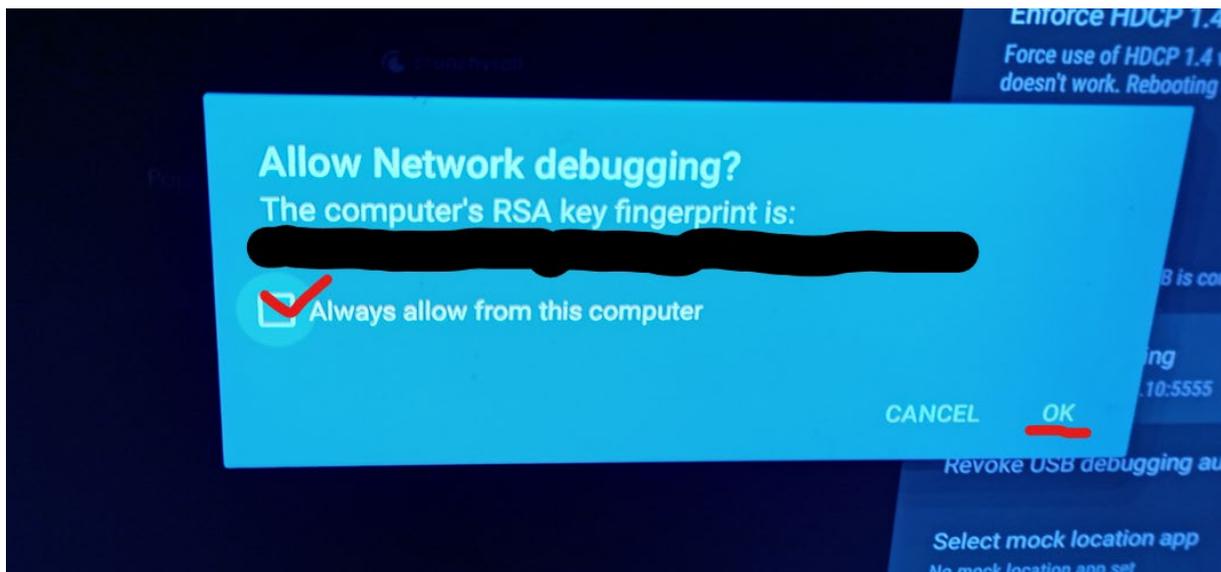
Then enable USB debugging and Network debugging.



Spoiler: YOU WILL NEED ADB INSTALLED, HERE'S AN EASY WAY TO INSTALL IF YOU NEED

Note the ip address and in a terminal on your computer, connect to this ip address.

Example: adb connect 192.168.0.10:5555



This will prompt the shield to allow for a connection, say yes.

STEP 4:

Run your choice of .bootmod, .deltamodonly, or .magiskmodonly. [MORE INFO](#)

Spoiler: NEW BOOTMOD SCRIPT OPTIONS

Simple 1 min demo:

How to use the new .bootmod script:

After Enabling USB Debugging and Wireless debugging, then adb connecting to your device, run the .bootmod script

```
C:\> [BOOTMOD]
BOOTMOD -- Version 2
=====
List of devices attached
192.168.0.10:5555      device

=====
1. Enter Bootloader Menu for Mod Flashing
2. Enter APK Menu
3. ADB Connect
4. Reboot to System
5. HELP
6. EXIT BOOTMOD
=====
Please Enter your Selection:
```

If you did everything correctly, your device should be listed, and you may proceed by pressing 1 and enter.

If you forgot to adb connect you may now do so with option 3, just type in your Shield's IP address.

```
C:\> [BOOTMOD]
Type in SHIELD IP Address: 192.168.0.10
```

After you select 1 on the main menu, the script will then reboot your device into the bootloader and will wait for you to press a key so the script can run fastboot devices to verify that your device has

posted.

```
=====
1321421007523  fastboot
=====
Is your device listed above?
=====
Press 1 for yes or 2 for no or 3 for Help:
```

Wait to press any key until you see your shield's lights come on and then you hear the window's chime on your computer. (see 0:16 in the video) Then Press 1 if your device is listed like above.

Spoiler: IF YOUR DEVICE ISN'T SHOWING

Run option 2 again, in case the script went too fast or you hit a key too quickly.

If your device is still not showing, make sure you have unlocked the bootloader and installed the fastboot drivers for your device.

Spoiler: HOW TO INSTALL FASTBOOT DRIVERS

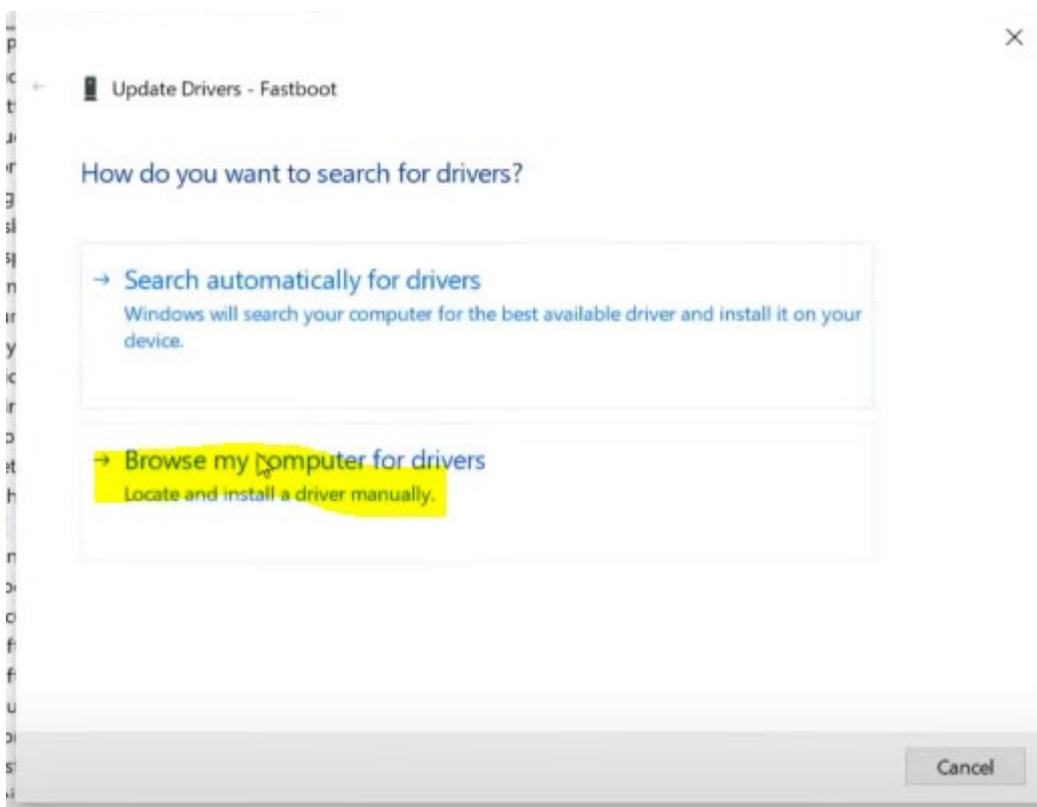
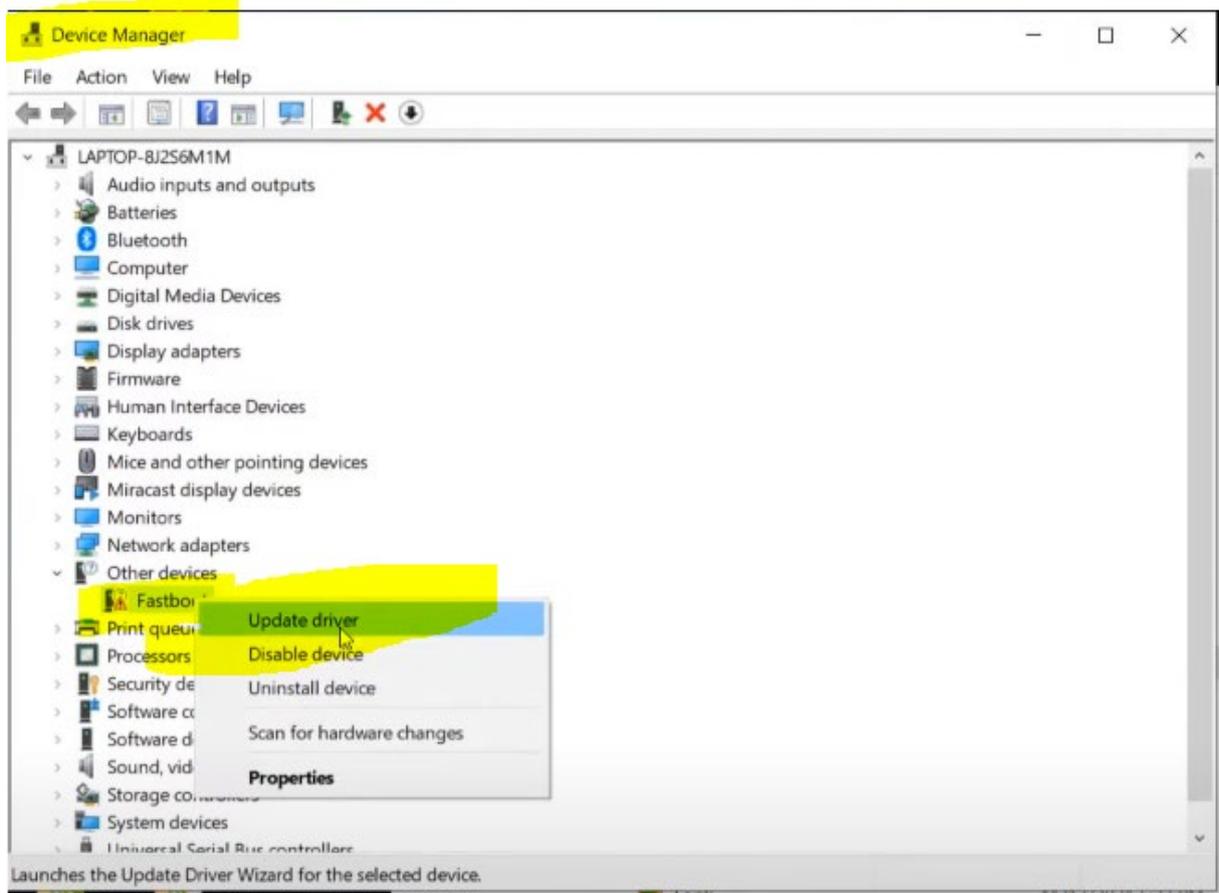
DOWNLOAD:

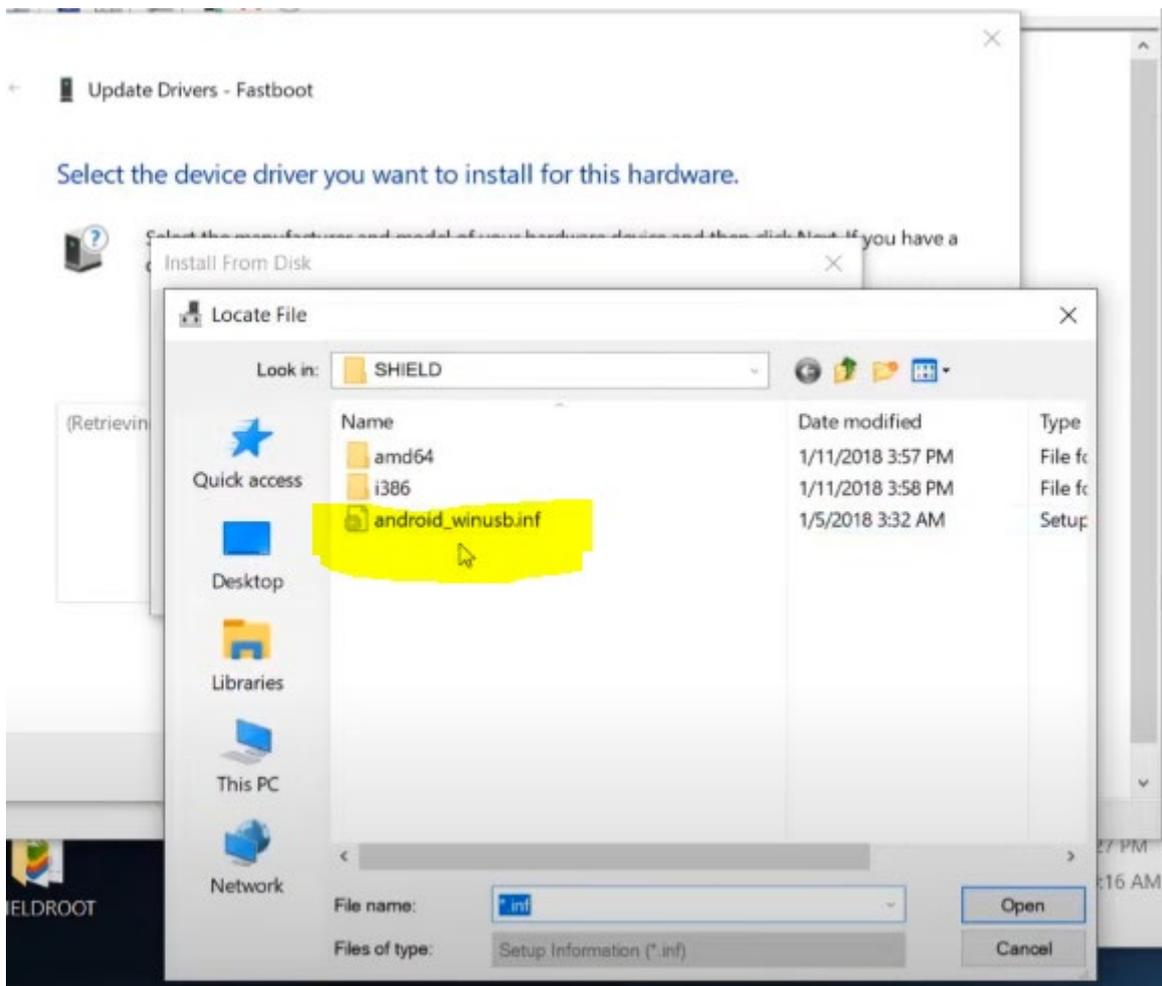
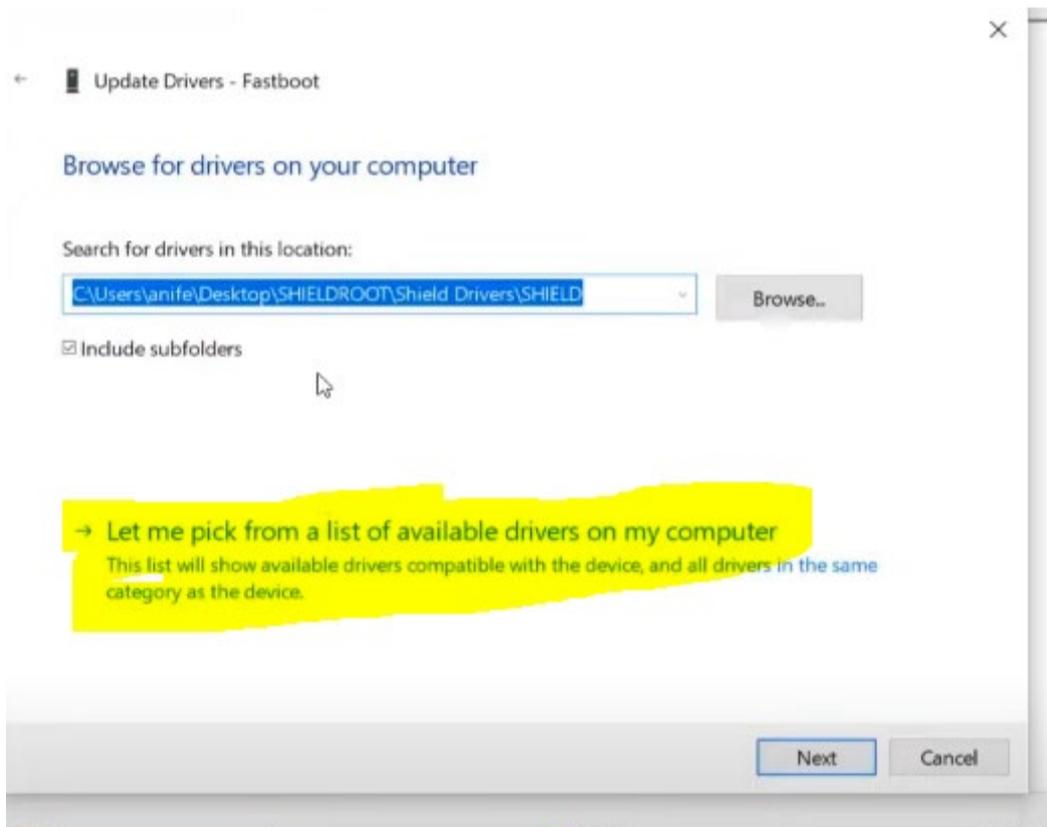
[Shield Drivers.zip](#)

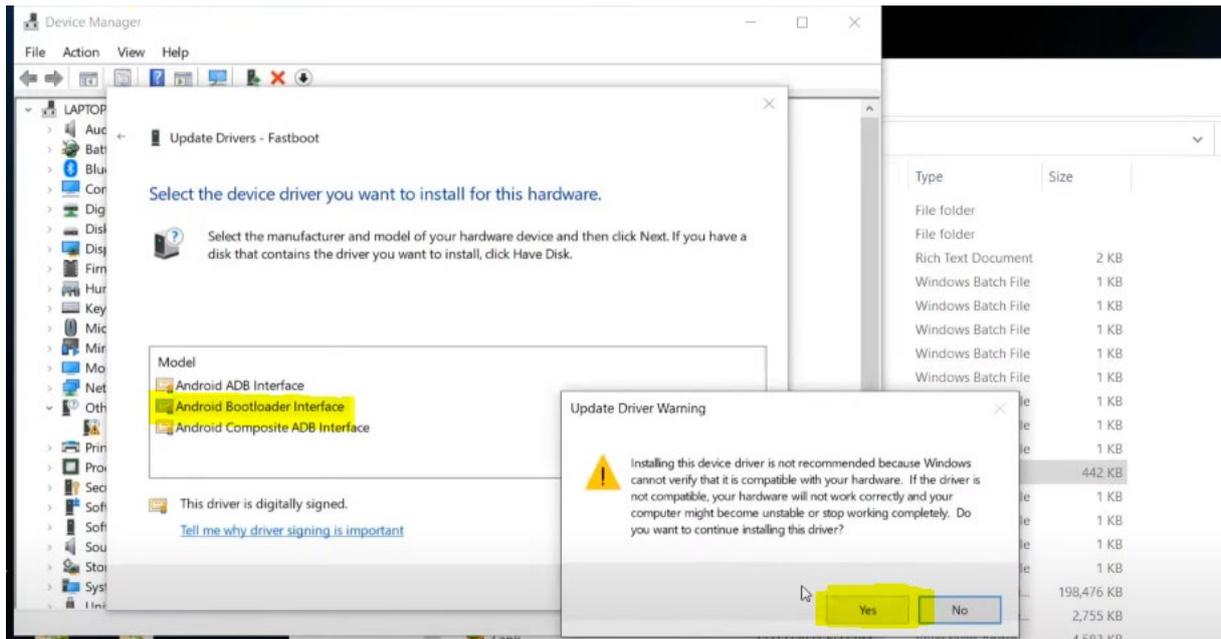


drive.google.com

Now open Device Manager and follow the steps below:







Spoiler: UNLOCKING THE BOOTLOADER

NOTE THAT UNLOCKING YOUR BOOTLOADER WILL ERASE ALL DATA ON THE DEVICE!

The shield should now be at the bootloader menu, simply select unlock bootloader



```
C:\> [BOOTMOD]
How would you like to flash your boot today? Do you want to include:
=====
1. TopJohnWu's Magisk
2. HuskyDG's Magisk Delta
3. Revert Back To Stock Boot Image
4. Reboot Shield to System
5. Return to Main Menu
=====
Select a number and press enter:
```

Now you can select which boot mod you would prefer. The script will erase the old boot image, flash the new one, reset, then the script will pause for us.

```
[BOOTMOD]
Erasing 'boot'          OKAY [ 0.020s]
Finished. Total time: 0.030s
Sending 'boot' (26112 KB) OKAY [ 0.790s]
Writing 'boot'         OKAY [ 0.553s]
Finished. Total time: 1.366s
Rebooting              FAILED (remote: 'unknown reason')
fastboot: error: Command failed
=====
Wait for your Shield to fully Reboot.
=====
Press any key to continue . . .
Performing Streamed Install
```

When your shield has fully rebooted and is on the main menu, you can press any key in the terminal and the script will finish the magisk installation for us by installing the apk to the device.

```
C:\> [BOOTMOD]
=====
APK MENU
=====
1. Magisk by TopJohnWu
2. Magisk Delta fork by HuskyDG
3. Return to Main Menu
=====
Please Enter your Selection:
```

If you accidentally pressed a button too quickly, you can always access the apk menu to adb install the Magisk apk.

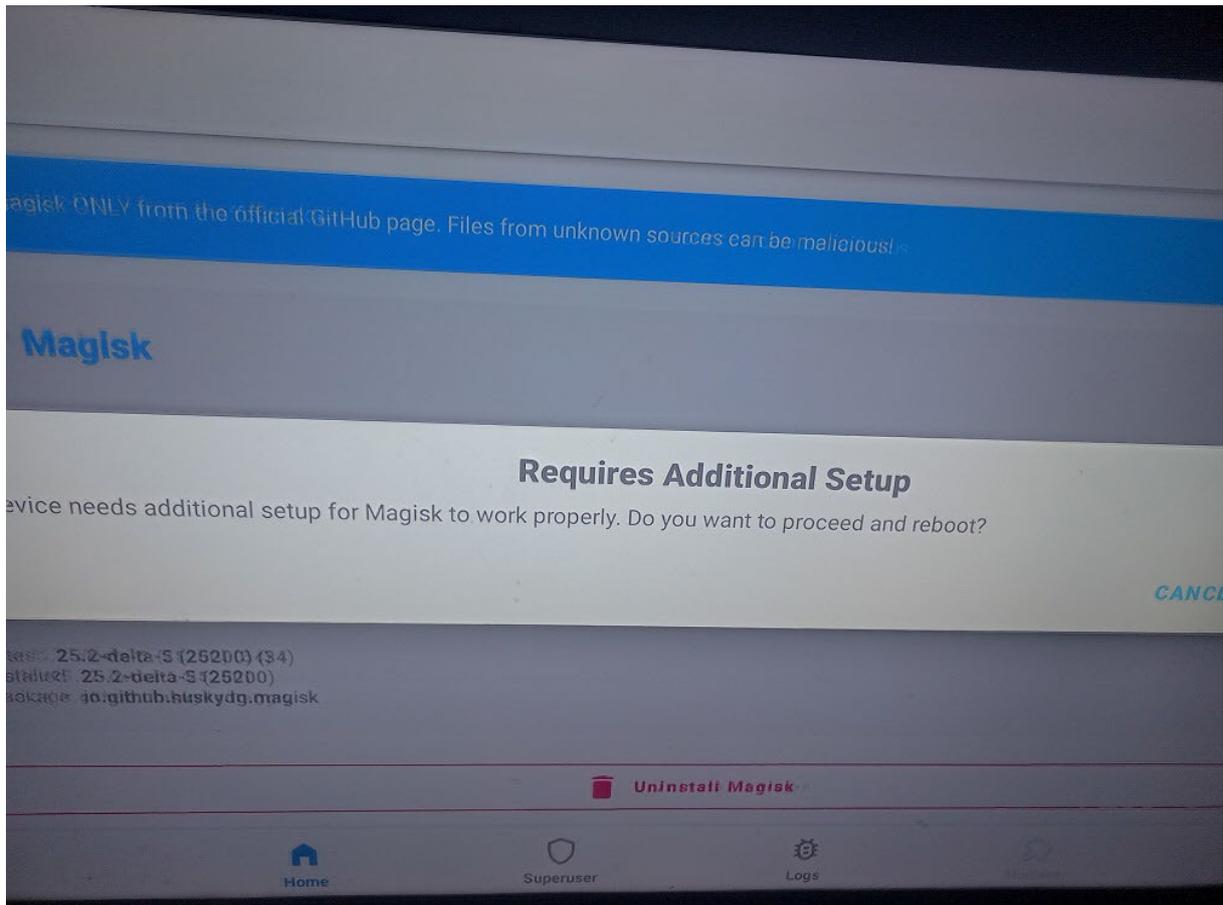
FULL RUNDOWN OF V2 CHANGES

Remember that you can always revert back to the Stock Boot Image and Lock your bootloader (again you can only lock it with a Stock boot flashed) to get your AI Upscaler and Dolby Vision working again when you are done with Root.

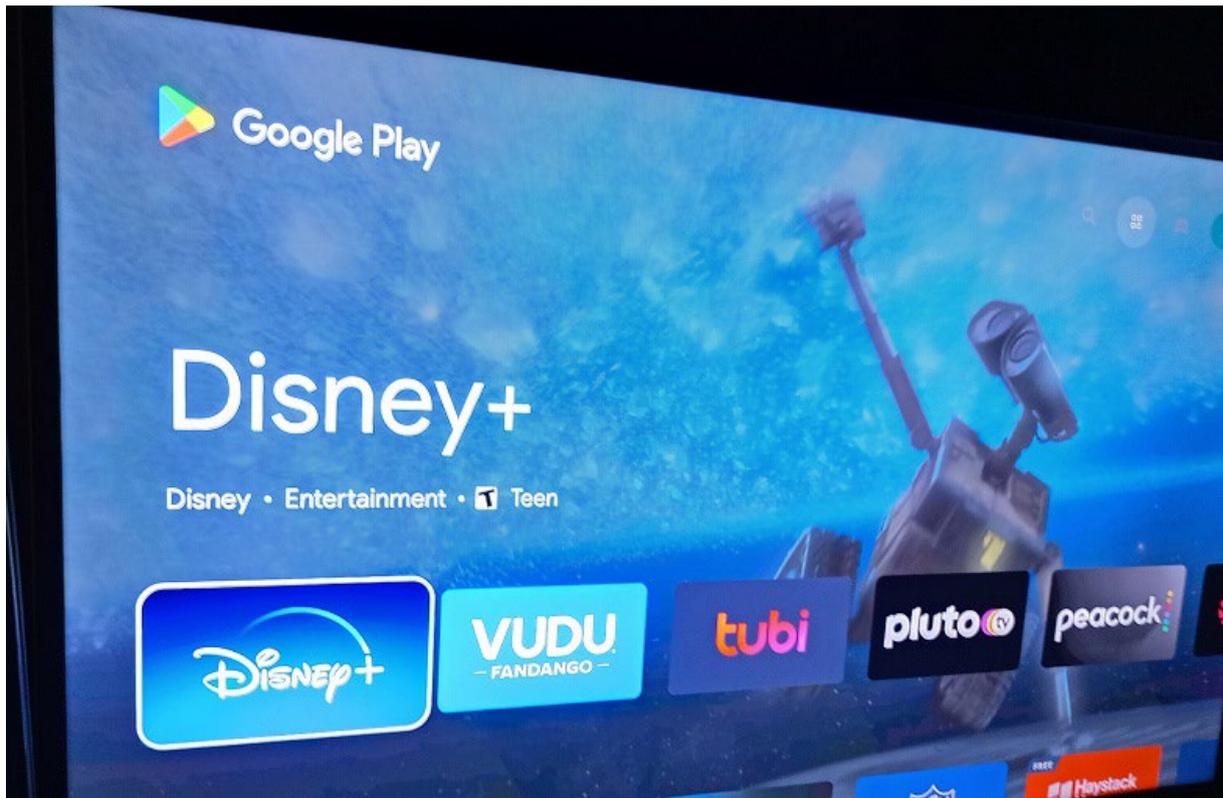
STEP 5:

Spoiler: RUN YOUR MAGISK APK ON THE SHIELD

Now Opening Magisk will trigger this alert:



Select OK and after the reboot, your Magisk of Choice will be fully installed!



You will now have Root and still be able to use apps and features that you shouldn't be able to. Normally with root (or at least on the Dev Rooted Images) we cannot install Disney +, but as you see, we *Sure Can Now*~! ;-)

[IF YOUR PLAYSTORE IS MISSING APPS, SEE THIS POST. REQUIRES MAGISK DELTA](#)

Spoiler: SOURCE CODE

SOURCE CODE --- You may repurpose / share this as you see fit.

DELTAMODONLY.BAT

Code:

```
fastboot erase boot
```

```
fastboot flash boot bootmod2.img
```

```
fastboot reboot
```

MAGISKMODONLY.BAT

Code:

```
fastboot erase boot
```

```
fastboot flash boot bootmod1.img
```

```
fastboot reboot
```

BOOTMOD.BAT ---- There is unused code, the :UNLOCK code will be removed later, it didn't work how I would have liked in testing and I forgot to remove it. It isn't harming anything right now so will remove it with the next update.

Code:

```
@echo off
title [BOOTMOD]
color 0A
if "%1" neq "" ( goto %1

:MENU
cls
echo BOOTMOD -- Version 2
echo =====
adb devices
echo =====
echo 1. Enter Bootloader Menu for Mod Flashing
echo 2. Enter APK Menu
echo 3. ADB Connect
echo 4. Reboot to System
echo 5. HELP
echo 6. EXIT BOOTMOD
echo =====
set /p answer= Please Enter your Selection:
if %answer%==1 goto BOOTLOADER
if %answer%==2 goto APK
if %answer%==3 goto ADB
if %answer%==4 goto REBOOT
if %answer%==5 goto HELP
if %answer%==6 goto EXIT

:ADB
cls
set /p answer= Type in SHIELD IP Address:
```

```
adb connect %answer%

goto MENU

:APK

cls

echo =====
echo APK MENU
echo =====

echo 1. Magisk by TopJohnWu
echo 2. Magisk Delta fork by HuskyDG
echo 3. Return to Main Menu
echo =====

set /p answer= Please Enter your Selection:
if %answer%==1 goto MAGISKAPK
if %answer%==2 goto DELTAAPK
if %answer%==3 goto MENU

:MAGISKAPK

adb install magisk.apk

goto MENU

:DELTAAPK

adb install delta.apk

goto MENU

:HELP

cls

echo Adb must be installed on the computer and USB debugging must be enabled on the Shield.
echo You will need the Fastboot USB drivers installed on your PC.
echo Check the GUIDE on XDA for more help.
echo LINK: https://forum.xda-developers.com/t/bootmod-root-your-shield-in-1-minute-2015-2017-2019.4524873/
```

```
echo
=====
===
set /p answer=Press 1 to return to Main Menu:
if %answer%==1 goto MENU

:UNLOCK

cls

fastboot oem unlock

echo =====
echo Use your shield to select yes. Then press any key to continue
echo =====

pause

set /p answer=Press 1 to Enter Flash Menu or 2 to return to Main Menu:
if %answer%==1 goto FLASH
if %answer%==2 goto MENU

:BOOTLOADER

cls

adb reboot bootloader

pause

cls

echo =====

fastboot devices

echo =====

echo Is your device listed above?

echo =====

set /p answer=Press 1 for yes or 2 for no or 3 for Help:
if %answer%==1 goto FLASH
if %answer%==2 goto BOOTLOADER
if %answer%==3 goto HELP
```

```
:FLASH

cls

echo How would you like to flash your boot today? Do you want to include:

echo =====

echo 1. TopJohnWu's Magisk
echo 2. HuskyDG's Magisk Delta
echo 3. Revert Back To Stock Boot Image
echo 4. Reboot Shield to System
echo 5. Return to Main Menu

echo =====

set /p answer=Select a number and press enter:
if %answer%==1 goto MAGISK
if %answer%==2 goto DELTA
if %answer%==3 goto STOCK
if %answer%==4 goto REBOOT
if %answer%==5 goto MENU

:MAGISK

cls

fastboot erase boot

fastboot flash boot bootmod1.img

fastboot reboot

echo =====

echo Wait for your Shield to fully Reboot.

echo =====

pause

adb install magisk.apk

goto MENU

:DELTA

cls

fastboot erase boot
```

```
fastboot flash boot bootmod2.img

fastboot reboot

echo =====

echo Wait for your Shield to fully Reboot.

echo =====

pause

adb install delta.apk

goto MENU

:STOCK

cls

fastboot erase boot

fastboot flash boot boot.img

echo
=====

echo REMEMBER TO LOCK YOUR BOOTLOADER FOR AI UPSCALING AND DOLBY VISION
FUNCTIONALITY

echo
=====

echo 1. Reboot Shield to the System
echo 2. Return to Main Menu

echo =====

set /p answer=Enter your selection:

if %answer%==1 goto REBOOT

if %answer%==2 goto MENU

:REBOOT

fastboot reboot

goto MENU

:EXIT

exit /b

Spoiler: SOURCES
```

Here are the sources for the Magisk apk's and their respective projects, used in making the boot mods.

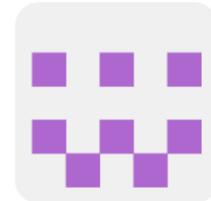
Topjohnwu's Magisk APK Direct Download Link (v25.2):

<https://github.com/topjohnwu/Magisk/releases/download/v25.2/Magisk-v25.2.apk>

Github Project Page:

topjohnwu/Magisk

The Magic Mask for Android



267

Contributors

11

Used by

38k

Stars

10k

Forks



[GitHub - topjohnwu/Magisk: The Magic Mask for Android](https://github.com/topjohnwu/Magisk)

The Magic Mask for Android. Contribute to topjohnwu/Magisk development by creating an account on GitHub.

github.com

HuskyDG's Forked version of Magisk "Delta" Direct Download Link:

<https://github.com/HuskyDG/magisk-files/releases/download/2304d221-delta/app-release.apk>

Github Project Page:

HuskyDG/magisk-files



3
Contributors

45
Issues

1k
Stars

85
Forks

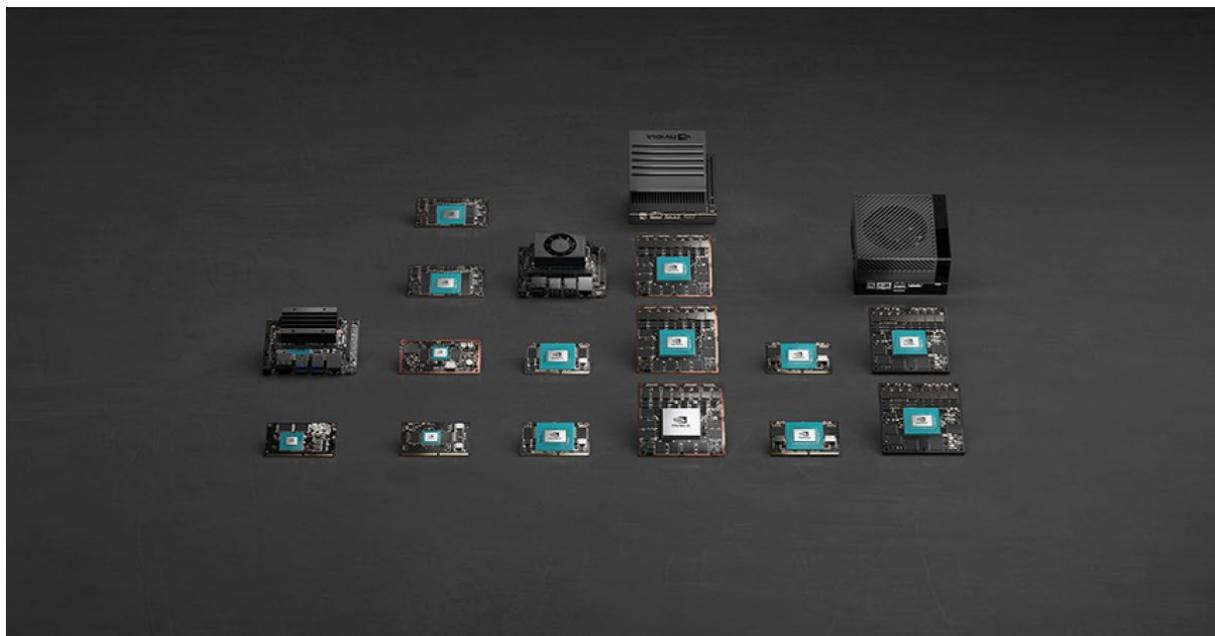


[GitHub - HuskyDG/magisk-files](#)

Contribute to HuskyDG/magisk-files development by creating an account on GitHub.

[github.com](#)

All original boot images come from NVIDIA's Gameworks:



[Gameworks Download Center](#)

Get the latest Gameworks software for your game development work.

[developer.nvidia.com](#)

Spoiler: THANK YOU TO OUR COMMUNITY <3

SPECIAL THANKS TO OUR FRIENDS IN THE XDA COMMUNITY <333

Thank you to [@topjohnwu](#) for making Magisk

[@huskydg](#) For making the forked magisk with magiskhide enabled and other features

[@nooted1](#) for teaching us about the magisk variant "delta" that has magiskhide still configured inside the apk

[@ajolly](#) for their efforts in educating us about safetynet modules that can be used within magisk

[@louforgiveno](#) for their efforts in reverse engineering apks, determining that it would be better to clear data in the google playstore instead of cache, and providing excellent feedback on pretty much every step of the way.

[@abc1054](#) for testing the ai upscaler and teaching me how to even use the silly thing.

[@Zer0_rulz](#) for testing the upscaler and teaching us about link2sd and providing a useful idea for studies, to "freeze apps" as opposed to straight deletion in tests. I will use both methods in the future!

[@pinvok3](#) for their script they made to teach us how to more efficiently locate the apps tied to the ai upscaler and determining the "tvsettings.apk" to potentially be culpable in jailing our upscaler. They also taught me about the dolby vision feature on the shield

[@Renate](#) for allowing me to bother her in the AVB thread while I try to learn how to talk to people like her. haha

[@Manzing](#) for stepping up and being the hero we needed for the 2017 shield community! They were able to locate the [correct pathing](#) for the OTA Firmware as well as provide us the stock 9.1 boot and complete OTA!!

[@I did it just tmrrow](#) For taking the time to verify magisk is able to indeed patch the 2015 version of the Shield [HERE](#) and more so they explained the boot images provided on gameworks for the 2015 version have the same hash, therefore a patched boot will work on both the 16gb and 500gb models. Thank you!

AI UPSCALER FIX:

THERE'S SOME TROUBLE WITH THE UPSCALER STILL, THE COMMUNITY IS WORKING TOGETHER IN THE COMMENTS BELOW

Spoiler: MORE PROBLEMS WITH ROOT

Please note that patching the boot with Magisk causes problems like the AI upscaler and Dolby vision being unavailable. You may want to wait for updates unless you have a reason to root with stock but otherwise feel free to join us in troubleshooting!

NOTE THAT THIS METHOD REQUIRES A FIX SO ONE COULD RUN ADB AS ROOT OUTSIDE OF THE SHELL. (adb shell su works, but not adb root outside of shell) Trying to mod this binary. Bare with me

Verified Working on the Shield:



[\[GUIDE\]\[NO-ROOT\] How to install Ubuntu and other Linux Distros on Your Phone or Android TV Box, using Termux](#)

NOTICE: THIS METHOD IS ONLY FOR NON ROOTED DEVICES PROOT-DISTRO GITHUB PAGE Hello Friends! Today I wanted to start a thread that will house prebuilt Linux environments, as well as instructions for building the Linux environments yourself...



forum.xda-developers.com

Last edited: Apr 15, 2023