

# **How to flash a JoyDivision USB joystick adapter firmware.**

This document will explain how to replace the built in firmware in a JoyDivision USB Joystick adapter in some different ways.

We have divided the process in two sections depending if you are using Windows as an OS or not. Select the section that suits your own needs.

What is used on both section is the ready built firmware which can be found in the latest archive on following home page: <http://www.onyxsoft.se/joydivision.html>

In this archive you will found following catalog when unarchived:

**JoyDivision/Software/Firmware/**

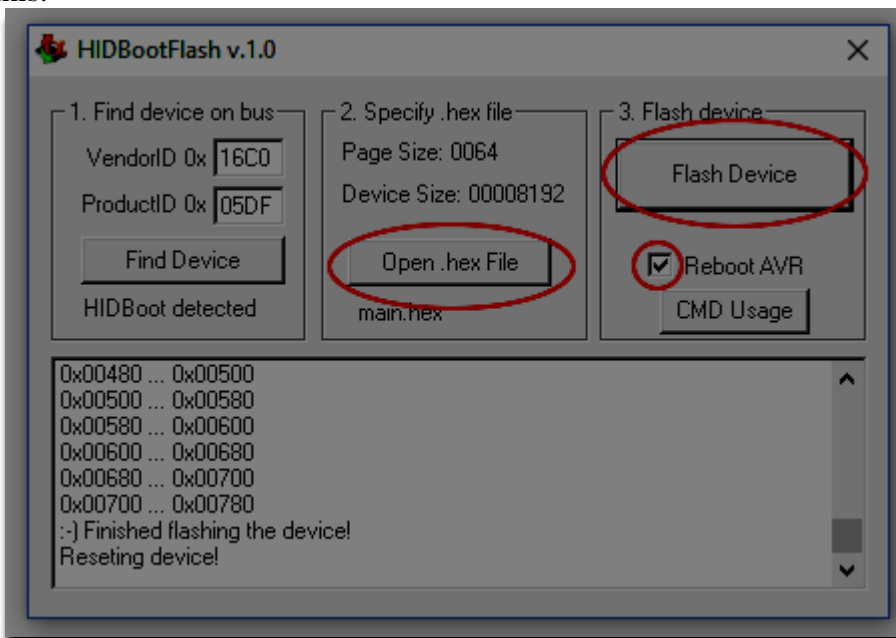
Under this catalog you find .hex-files which is the firmware which is needed for the adapter itself. There is one version of the files which says”-**dual.hex**” in the end. That specific type is intended to be use if you have a dual port adapter. If this is not the case, use the file without that extra extension to the name.

## Section 1 – Windows users!

Download the HIDBootFlash software from this site:

<http://vusb.wikidot.com/project:hidbootflash>

- \* Unarchive the program
  - \* Insert a joystick in the adapter (if you have a dual port variant, use the right port seeing it from the entry side).
  - \* Press the fire button (and keep it pressed) when attaching the USB connector to the computer.
  - \* The unit will identify itself as a "HIDBoot" device to the system.
  - \* Keep the button pressed (this can be hard, but use a bit of tape to hold the button down if you like).
  - \* Start HIDBootFlash tool and press the **"Find Device"** button, if that detect the HIDBoot device then you can select and open the wanted firmware with **"Open .hex File"** button.
- Last step is to press the **"Flash Device"** button and if everything is ok it should look something like this:



You can now release the button and remove the USB cable from the computer and re-attach it but without holding down the fire button and the adapter is ready to be used.

If you experience that the HIDBoot device is not properly detected such as the image below. It's most certainly because of the fire button has been release in some point. Have no fear, it's just to try the above step once more =)



We have also created a video tutorial how to do the steps above in case You would like to see it more visually: <https://youtu.be/Zzamrevis6U>

If you for some reason cannot start the HIDBootFlash tool, you might need to install following required files first:

<https://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=26347>

## Section 2 – Linux/OSX/Other users!

Download the latest archive of BootloadHID archive:

<https://www.obdev.at/products/vusb/bootloadhid.html>

Unarchive this package and build it with **sudo make**, depending on your system you might have to add some addition dependencies to the system but normally this shall just build just fine as it is.

For additional changes to this command line tool (and ready built binaries to both Raspberry Pi and MorphOS) you can get following git hub repository:

<https://github.com/develin4000/joydivision>

\* Insert a joystick in the adapter (if you have a dual port variant, use the right port seeing it from the entry side.

\* Press the fire button (and keep it pressed) when attaching the USB connector to the computer.

\* The unit will identify itself as a "HIDBoot" device to the system.

\* Keep the button pressed (this can be hard, but use a bit of tape to hold the button down if you like).

\* Execute the command line tool like following:

```
sudo bootloadHID <your_wanted_firmware.hex>
```

When the HIDBoot device is identified and the flash procedure is started you will see following information:

**Page size = 64 (0x40)**

**Device size = 8192 (0x2000); 6144 bytes remaining**

**Uploading 2176 (0x880) bytes starting at 0 (0x0)**

**0x00800 ... 0x00880**

You can now release the button and remove the USB cable from the computer and re-attach it but without holding down the fire button and the adapter is ready to be used.

If you experience that the HIDBoot device is not properly detected the information will say something like following:

**Error opening HIDBoot device: The specified device was not found**

It's most certainly because of the fire button has been release in some point. Have no fear, it's just to try the above step once more =>

We have also created a video tutorial how to do the steps above in case you would like to see it more visually: <https://youtu.be/UEG-mt97SJ4>