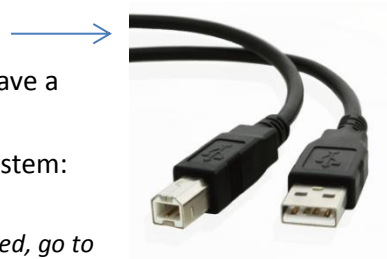


OpenSprinkler Firmware Updater Instructions (04/26/15)

Video Tutorial Available at: http://youtu.be/oUb9A_kK_3Q

Preparation

1. Prepare a regular-size A male to B male USB cable.
2. Use **Export Configuration** in the OpenSprinkler's web interface to save a copy of your current programs and settings.
3. Run the **osFWUpdater** program corresponding to your operating system:
 - **Windows:** **osFWUpdaters.exe** in the Windows subfolder
 - **MacOSX:** if you encounter error Application is damaged and can't be opened, go to System Preferences -> Security and Privacy -> select 'allow applications downloaded from anywhere'.
 - **Linux:** either run the program in **sudo**, or add udev rules for USB permission. If the pre-compiled executable doesn't run, go to the Source folder and re-compile the program.
4. **Find out your hardware version:** check the **version label attached at the back of your device**. If the label is missing, here is a simple rule: power off OpenSprinkler, then press and hold pushbutton B2 while powering it back on, and release the button within 2 seconds (this is OS 2.1's bootloading procedure). If the LCD screen remains off, you have Hardware 2.1.



Driver

- **Linux** does not need driver for any version of OpenSprinkler.
- For **Mac**, you need to install driver for
 - Hardware 2.2, 2.3, and above: http://raysfiles.com/drivers/ch341ser_mac.zip
 - Hardware 2.1 and 2.0: no driver is needed
- For **Windows**, you need to install driver for:
 - Hardware 2.2, 2.3 and above: <http://raysfiles.com/drivers/ch341ser.exe>
(This is only needed for Windows XP; newer Windows systems do not need driver)
 - Hardware 2.1 and 2.0: **Zadig** fully-signed driver: <http://zadig.akeo.ie/>
(Choose to install **libusb-win32** driver. Note that Windows XP has a separate download. Additional details can be found at: <http://rayshobby.net/?p=9912>)

Update Firmware

1. Run osFWUpdater program. Click **Download Firmware** to obtain the latest firmware.
2. **If your Hardware version is NOT 2.1**, plug in a USB cable and click on **Detect Hardware** to make sure the system can successfully detect the device. Then click on **Upload Selected Firmware**.
3. **If your Hardware version is 2.1, DO NOT** click on Detect Hardware. Instead, enter bootloader first (i.e. power off OS, press and hold pushbutton B2 while plugging in the USB cable, **then release B2 within 2 seconds**). Next, manually select **OpenSprinkler_v2.1** from the dropdown list, and click on **Upload Select Firmware**.

Note: the updater program automatically selects the latest firmware. However, if necessary, you can override it by manually selecting any available firmware from the Firmware dropdown list.
4. Wait till the device **completes RESETTING EEPROM**.
5. If the update is successful, you can use the web interface's **Import Configuration** to restore your prior programs and settings.