

# OPENSPrINKLER FIRMWARE UPDATE INSTRUCTIONS (06/27/15)

Video Tutorial Available at: [http://youtu.be/oUb9A\\_kK\\_3Q](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](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 needed for Windows XP**; newer Windows systems do not normally need the driver. If your system cannot configure the driver for the USB port, loading the driver may address the problem)
  - 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: <https://opensprinkler.com/dead-simple-driver-installation-for-usbasp-and-usbtiny-on-windows/>)

## UPDATE FIRMWARE

**NOTE:** The firmware update process will set OS back to factory defaults. This includes the password, which will be set back to the factory default of “opendoor”. Please ensure you back up your current configurations *before proceeding*.

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.

**NOTE:** If you have configured OpenSprinkler with a static IP address, it may have changed immediately after the update. Pressing B1 on the OS device will display its current address. Use this IP address to access OS. Then you can change the static IP back to what you have set before the update.