

FirstVR Updater Public — User Manual

v1.11 | 2026-07-14 | H2L, Inc.

What this app does

This app rewrites the firmware (built-in software) inside your FirstVR device from a Mac over Bluetooth. No difficult setup required — just three steps: “Choose → Scan → Write.” After writing, you can also verify sensor data reception (Data Monitor) from within the same app.

- Requires: a Mac running macOS 11 or later (with Bluetooth)
- FirstVR device powered on (USB power is fine)

1. Installation (first time only)



Drag the app icon into the Applications folder.

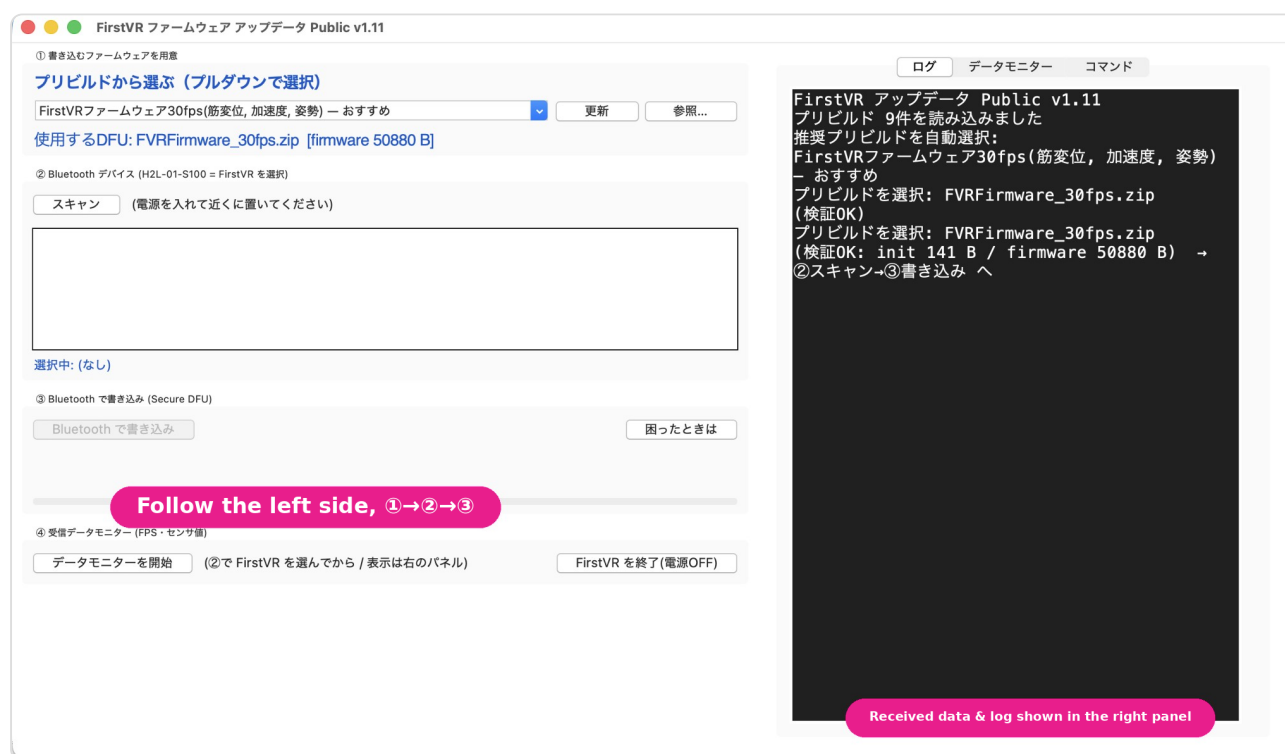
- Double-click the distributed “FirstVR_Updater Public_v1.11.dmg” file to open it.

- When the window above appears, drag the app icon on the left into the “Applications” folder on the right.

Once copied, launch “FirstVR Updater Public” from Launchpad or the Applications folder.

- This app is notarized by Apple. You can open it right after downloading with no security warnings.
- On first launch, if asked “Allow use of Bluetooth?”, click “Allow.”
- If you're ever unsure how to use the app, double-click “View manual on the Web” inside the dmg. The latest version of this manual is always available at first-vr.com/tutorial-firmwareupdate.

2. Understanding the screen



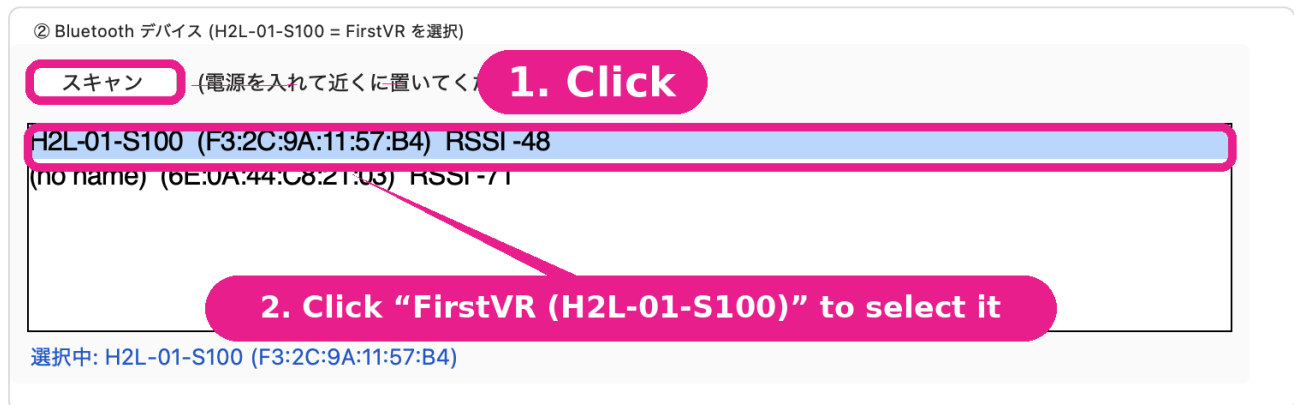
The app interface (device UI text is in Japanese).

3. Writing the firmware (3 steps, 1–2 min)

STEP 1 — ① Choose the firmware to write

Simply choose from the dropdown. By default, “30fps — Recommended” is already selected, and in most cases you can leave it as is. You can also choose a different fps version depending on your use case (see the table below).

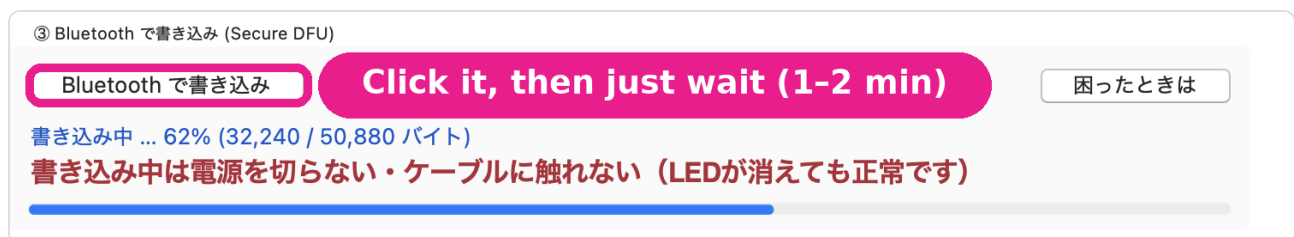
STEP 2 — ② Find and select your FirstVR



1. Click “Scan.” 2. Click “FirstVR (H2L-01-S100)” in the list to select it.

Power on your FirstVR and place it near your Mac, then click “Scan” (about 6 seconds). Click “H2L-01-S100” (= your FirstVR device) when it appears in the list to select it.

STEP 3 — ③ Write the firmware

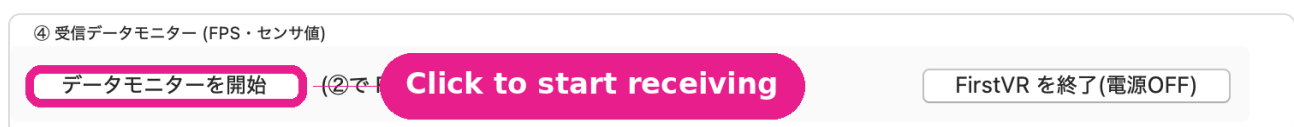


Click, then just wait (1–2 minutes).

Click “Write via Bluetooth” and then simply wait (1–2 minutes). Once complete, the app automatically scans again to confirm that FirstVR has started up normally.

⚠ Do not power off FirstVR or touch the USB cable while writing is in progress. The LED may turn off during this process — that is normal, not a malfunction.

4. Viewing data (checking that it works)



Click to start receiving data.

Once writing is complete, click “Start Data Monitor.”

ログ

データモニター

コマンド

対象: H2L-01-S100

FPS moves if data is being received

約 28 FPS

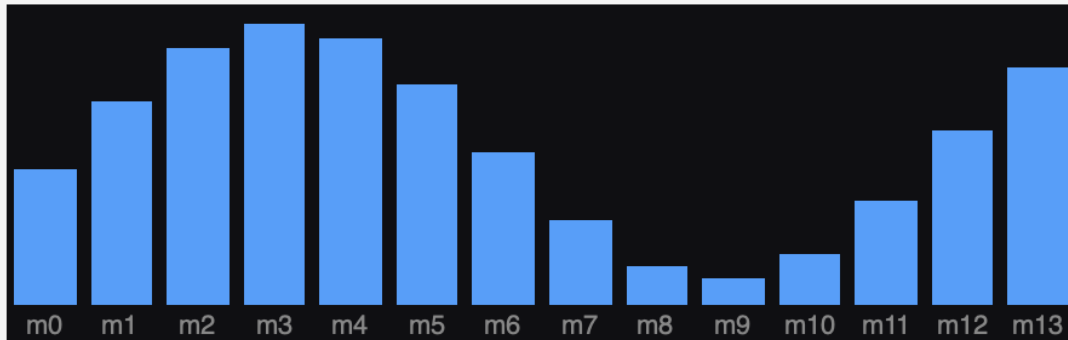
(推定 / 受信 84 パケット/秒) 受信中

筋変位センサ 28/秒

加速度 28/秒

クォータニオン 28/秒

筋変位センサ (m0~m13)



105 158 201 219 208 171 119 67 30 20 39 82
136 185

加速度 / ジャイロ / 地磁気 / クォータニオン

加速度: 0.00 0.05 0.98

クォータニオン: 1.00 0.00 -0.04 0.01

受信生データ (最新)

+p+105+158+201+219+208+171+119+67+30+20+39+82+136+185
+a+0.004+0.049+0.981 +q+0.998+0.0022+-0.0399+0.01

受信停止

累計 207 パケット

FirstVR を終了(電源OFF)

If data is being received correctly, the FPS counter will be active.

If the right-hand panel shows FPS, muscle displacement sensors (m0–m13), acceleration, and orientation updating in real time, the update was successful. Put on FirstVR and try clenching your hand or moving your arm — the bars should move accordingly.

5. Sending commands (vibration / rate change)

ログ

データモニター

コマンド

FirstVR へコマンドを送ります。データモニター受信中はその接続で即時送信、未接続なら②で選択中のデバイスへ接続して送信します。

バイブレーション (+vib+...&)

連続 ON

OFF

時限:

0.5秒

1秒

2秒

Ring it to check it works

(fps系ファームウェアで対応。旧ファームは無反応/エコーのみ)

送信レート変更 (+rate+<fps>&)

30

▼

fps

レートを変更

Change rate (rate-switching version only)

(「レート切替版」ファームウェアのみ対応・10~100fps。
変更結果はデータモニターの推定FPS表示で確認できます)

Ring the vibration motor to confirm it works; change the transmission rate (rate-switching firmware only).

From the “Command” tab you can trigger vibration to confirm the device is working, or change the transmission rate (only available when rate-switching firmware has been written).

6. Firmware options

Firmware	Description
30fps (Recommended)	Sends 14-channel muscle displacement, acceleration, and orientation data about 30 times per second. Use this with standard apps (e.g. Maaart).
10 / 20 / 50 / 100fps	Different transmission rates. Choose according to your use case.
150 / 200 / 250fps (binary)	For high-speed measurement (binary format). For dedicated receiving programs only — not compatible with Maaart.
Rate-switching version	After writing, the rate can be switched between 10–100fps from the Command tab.

7. Troubleshooting (Q&A)

Q. FirstVR doesn't appear even after scanning

A. Check that FirstVR is powered on and place it close to your Mac, then scan again. Also check that Bluetooth is turned on in the Mac menu bar. If it still doesn't appear, check System Settings > Privacy & Security > Bluetooth to make sure this app is allowed.

Q. The write failed, or FirstVR won't power on anymore

A. It is not broken. Power FirstVR via USB cable, press "Scan," select "[DFU mode] DfuTarg" from the list, and write the firmware again. This will restore it. (The same steps also appear if you click the "Troubleshooting" button in the app.)

Q. The write succeeded, but no data is coming in

A. Power-cycle FirstVR, then click "Start Data Monitor" again. The 150fps-and-above binary versions use a dedicated data format and cannot be received by existing apps such as Maaart (please use the 30fps version instead).

Q. A warning appears when opening the app

A. This version (v1.11) is notarized by Apple, so it normally opens without any warning. If a warning does appear, try right-clicking the app and selecting "Open."