

Avelo P1 Instruction Manual

Model: P1

Product Type: BLE Running Gait Sensor Module

Manufacturer: Flyte, Inc.

1. Product Overview

The **Avelo P1** is a low-power Bluetooth® Low Energy (BLE) sensor module embedded inside the Avelo running shoe. The module includes an IMU (LSM6DSV32XTR), an nRF52840 BLE system-on-chip, and a custom CR2032 3V Lithium coin-cell battery with wired connector.

The module automatically activates when motion is detected and transmits real-time running gait data to the Avelo mobile application. There are **no buttons** or direct user controls.

2. Intended Use

- Used inside Avelo running shoes only
 - Intended for monitoring running gait and mechanical load
 - Operates automatically during walking/running
 - Connects to the Avelo mobile application over BLE
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3. Operation

1. Insert the module securely into the designated cavity inside the Avelo shoe.
2. Begin walking or running — the module will wake automatically.
3. Open the Avelo app to pair with the module.
4. After your session, the module will return to a low-power sleep state.

No additional user interaction is required during normal operation.

4. Battery Information

- Battery type: **Custom CR2032 3V Lithium Coin Cell** (with connector)
 - Replacement battery **must be obtained from Flyte, Inc.**
 - Standard off-the-shelf CR2032 batteries are **not compatible**
 - Battery life varies based on usage and temperature
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5. Battery Replacement Procedure

 **Caution:** Use only Flyte-approved replacement batteries. Use of non-approved batteries may result in improper function or safety hazards.

Tools required

- PH00 Phillips screwdriver

Steps

1. Remove the module from the shoe.
2. Using a PH00 bit, remove the **four (4) screws** securing the module enclosure.
3. Gently open the enclosure.
4. Disconnect the depleted battery from the internal connector.
5. Connect the replacement battery.
6. Reassemble the enclosure and tighten all screws securely.
7. Reinsert the module into your shoe.

Battery Warnings

- Do not short-circuit the battery.
- Keep batteries away from children.
- If swallowed, seek medical attention immediately.

- Do not expose to excessive heat.
 - Dispose of used batteries in accordance with local regulations.
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6. Water Resistance

The module is **water-resistant to IPX7**:

- Withstands immersion in up to 1 meter of water for up to 30 minutes
 - Not intended for prolonged submersion
 - Do not open the module while wet
 - Ensure enclosure screws are fully tightened to maintain water resistance
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7. Environmental Conditions

- **Operating temperature:** 0°C to 40°C
 - **Storage temperature:** -20°C to 60°C
 - **Humidity:** Non-condensing
 - Avoid exposure to extreme heat (e.g., leaving shoes in a hot car)
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8. Product Labeling

The FCC ID (once assigned) will be printed on the **module enclosure**.

Label location: **Exterior surface of the Avelo P1 module**

Label example (placeholder):

FCC ID: XXXXXXXXX

This manual will be updated with the final FCC ID when available.

9. FCC Compliance Statement

FCC warning:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

10. IC Warning

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition without restriction.

le dispositif a été évalué à satisfaire l'exigence générale de l'exposition aux rf.

l'appareil peut être utilisé dans des conditions d'exposition portatif sans restriction.

11. Bluetooth® Notice

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The Avelo P1 uses the qualified Bluetooth stack included in the Nordic nRF52840 platform.

12. Disposal Information

- Do not dispose of electronic products in household trash
- Follow local recycling and disposal regulations
- Remove battery before disposal
- Do not incinerate

13. Contact Information

For support or questions:

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