Vital Sign Earplug (VSE) – User guide

Universitat Politècnica de València

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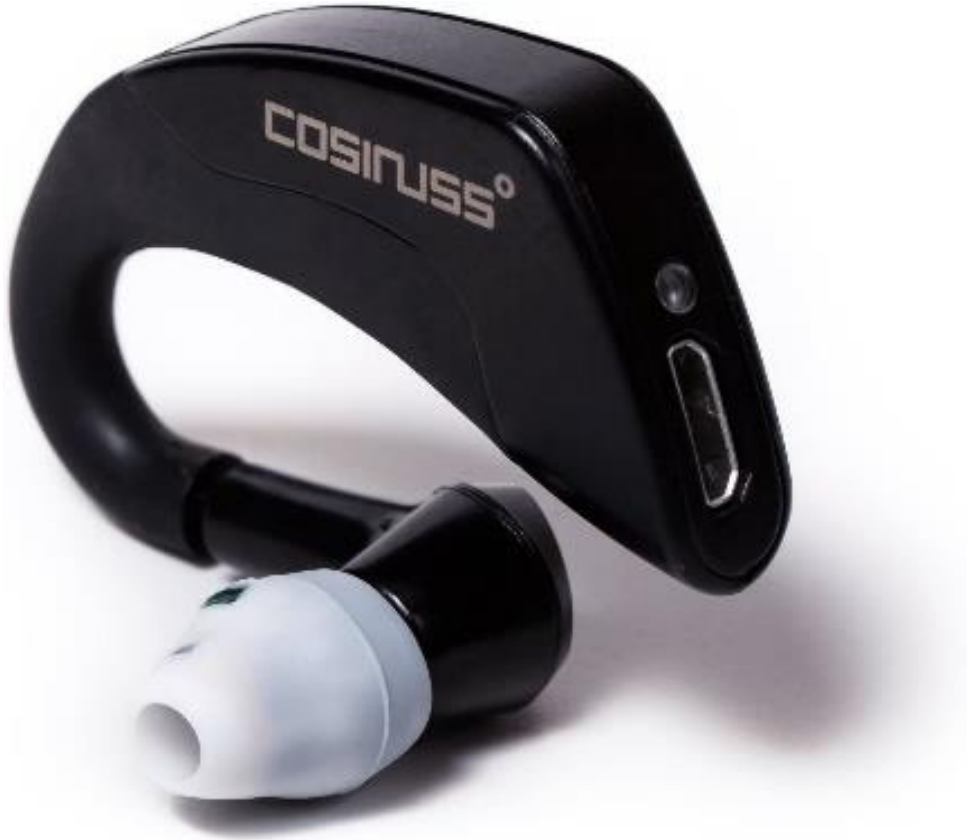
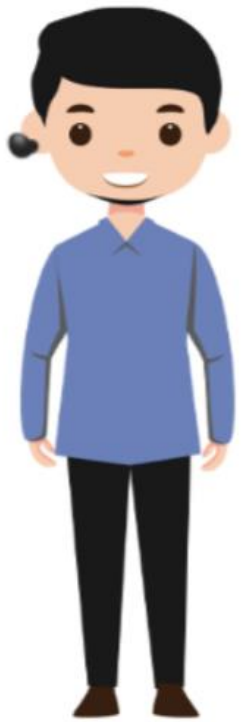
Introduction to the Vital Signs Earplug

- The Cosinuss 2 represents a significant leap forward in patient monitoring technology.
- As a vital sign monitoring earplug, it offers a non-intrusive, highly accurate method for capturing essential health metrics such as heart rate, body temperature, and blood oxygen levels.
- This document serves as both a comprehensive training manual and a user guide, designed to ensure users can effectively employ the Cosinuss 2 in various settings.



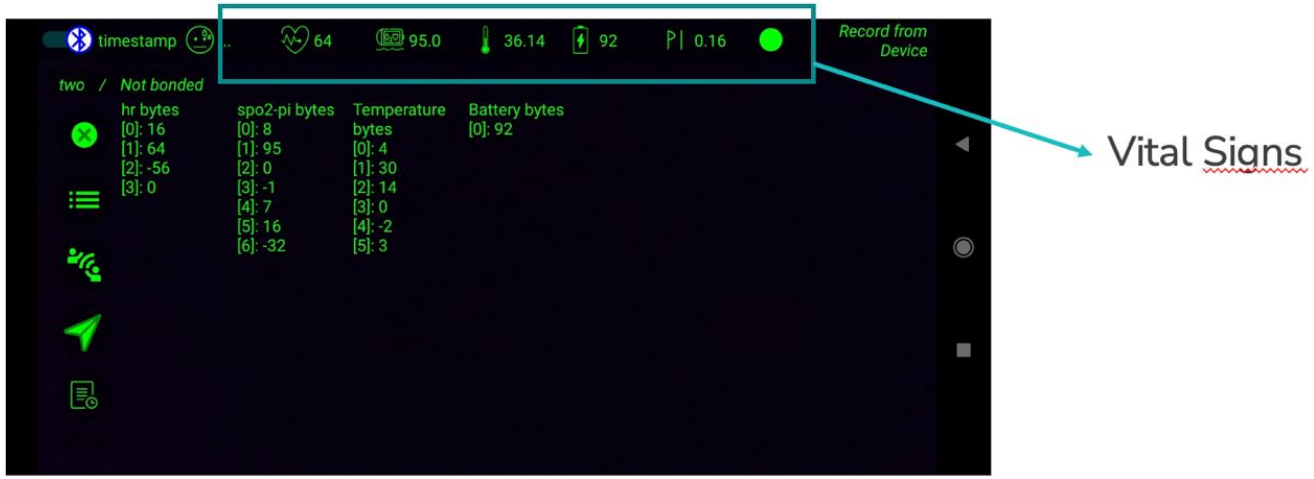
Comprehensive Device Operation – Insertion and Activation

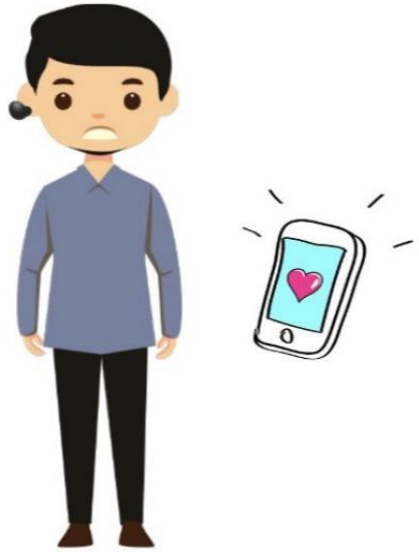


1. **Clean the Device:** Before inserting the earplug, ensure that both the device and your ear are clean.
2. **Insert the Earplug:** Pull the top of your ear upward and back to straighten the ear canal. Insert the earplug gently until it feels secure. It should not cause discomfort.
3. **Turn on the Device:** Press the power button. You will see a light indicator which confirms the device is active.
4. **Connect to the App:** Open the Cosinuss app on your smartphone or another device. Follow the instructions to pair the earplug via Bluetooth. The device should be close to your phone during pairing.

Monitoring Process

1. **Start Monitoring:** Once connected, the device automatically begins to monitor and transmit data to your app.
2. **Reading Data:** Access real-time data on the app dashboard. Here, you can check heart rate, temperature, and SpO2 levels.
3. **Set Alerts:** Customize alerts for specific thresholds in vital signs, which helps in managing patient care proactively.





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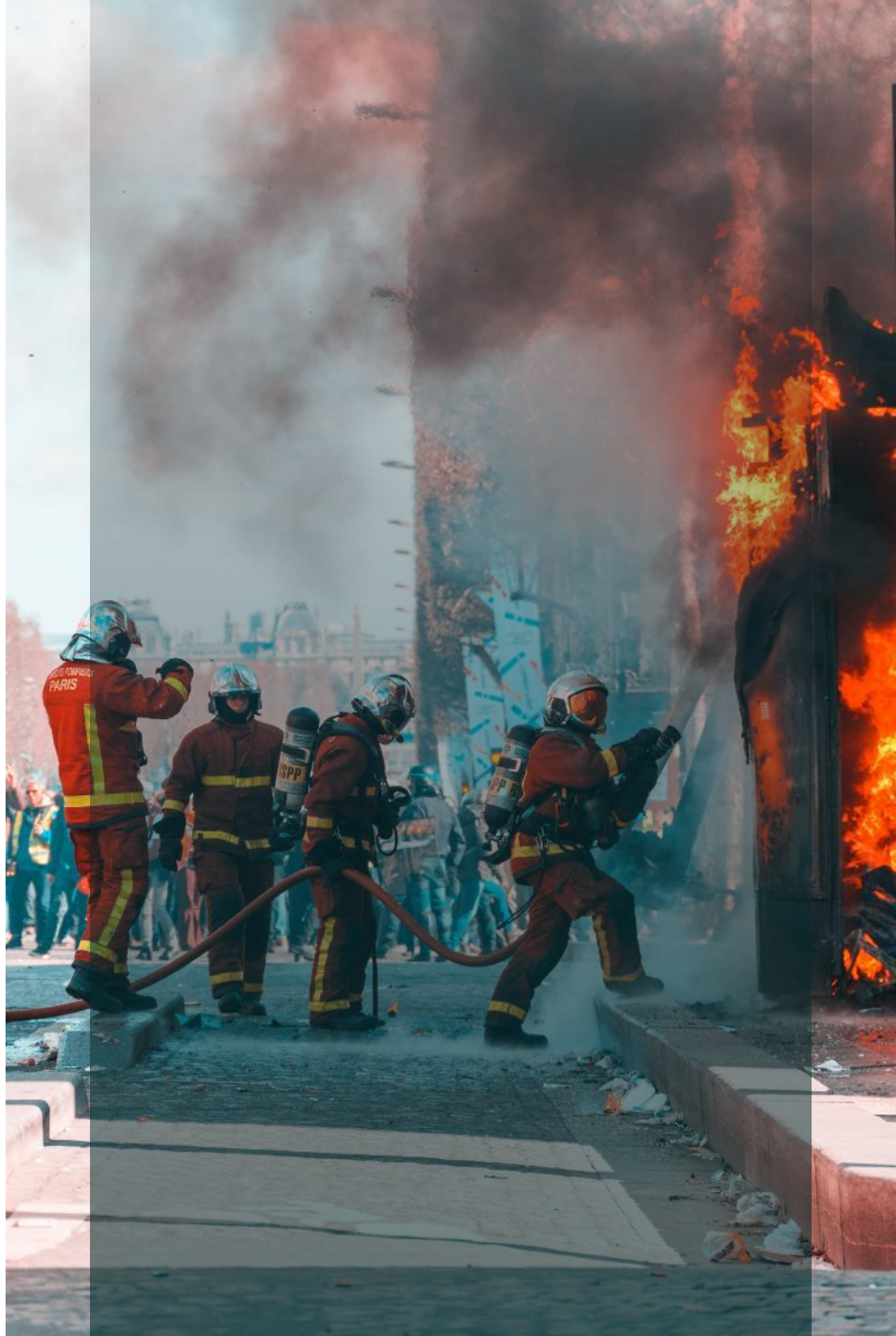
Charging and Maintenance

- **Charging the Device:** Charge the device regularly. A full charge typically lasts for about 24 hours of continuous monitoring.
- **Device Care:** Clean the earplug regularly with alcohol wipes to maintain hygiene and functionality.



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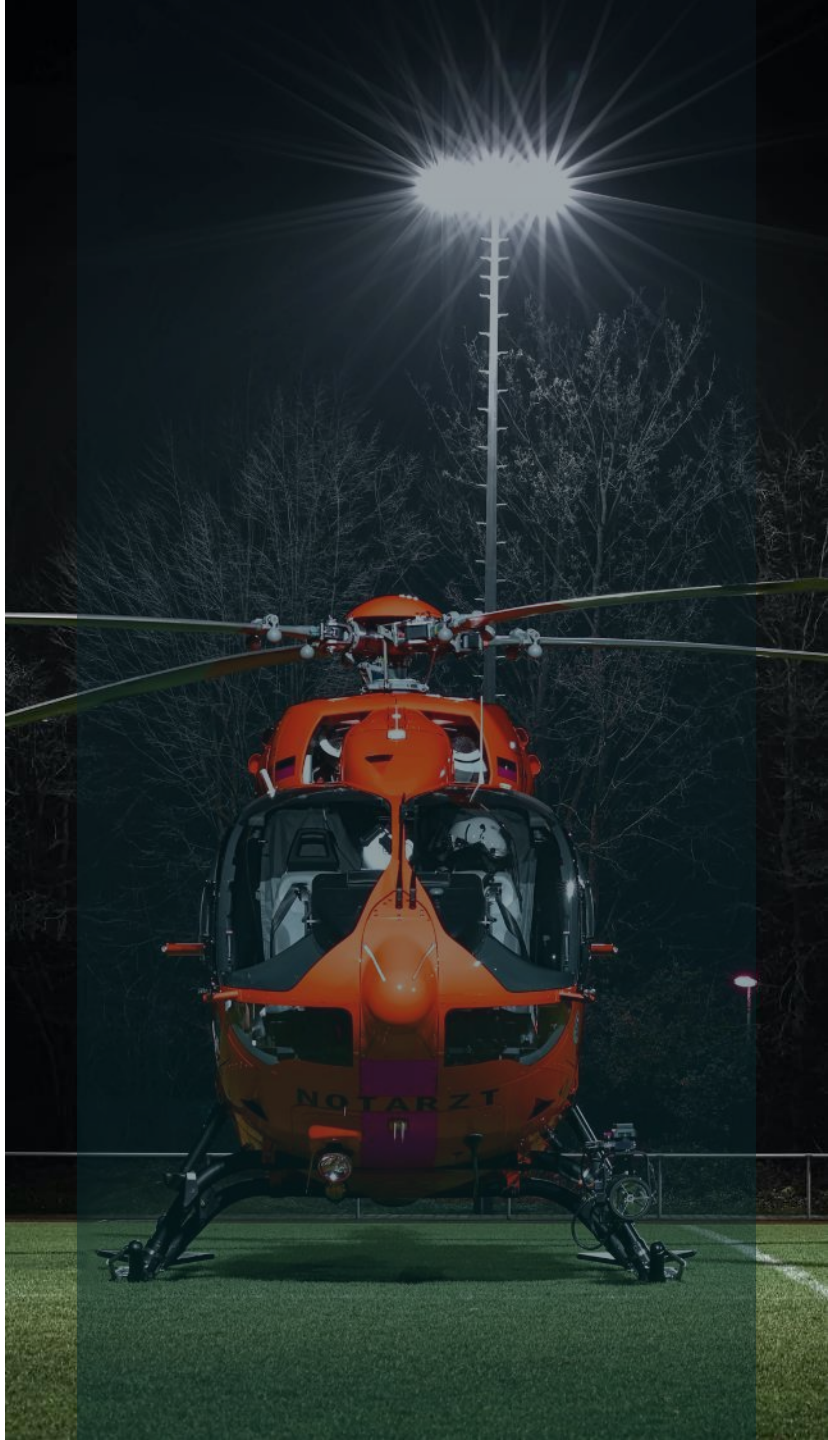
Technical Specifications and User Guidance

- **Device Inputs and Outputs:**
  - **Inputs:** Physiological data including heart rate, temperature, and SpO2.
  - **Outputs:** Data is displayed through the Cosinuss app, providing actionable insights and alerts when parameters deviate from normal ranges.
- **User-Friendliness:**
  - The device is designed to be operated by users with no prior technical knowledge.
  - Detailed user manuals and quick-start guides are provided for both patients and healthcare providers.



Advantages and Developmental Insights

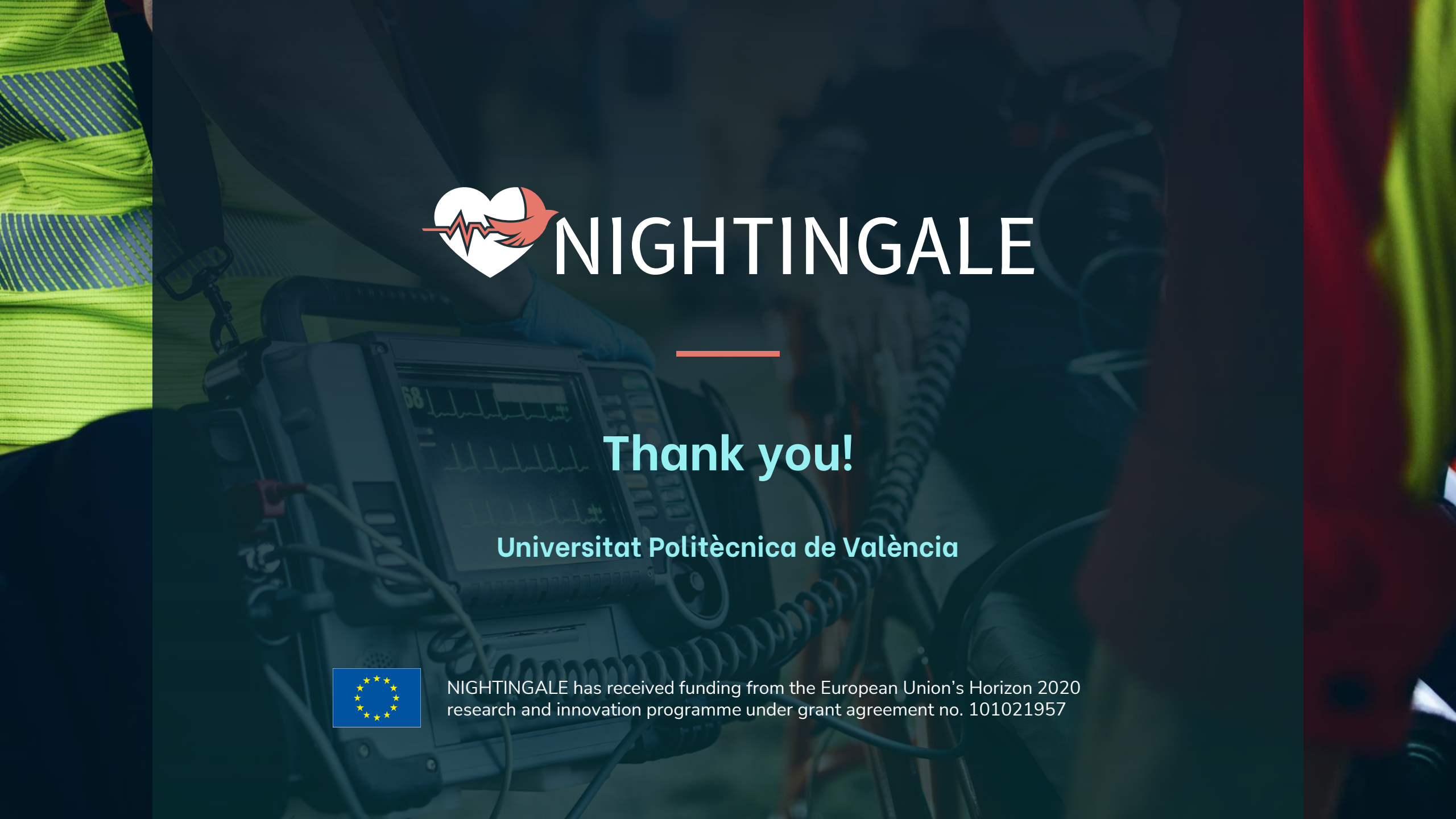
- The earplug's minimal intrusiveness and the ability to monitor multiple vital signs simultaneously set it apart from traditional monitoring methods.
- Its development is guided by feedback from ongoing clinical trials aimed at maximizing functionality and user experience.
- Although currently suitable for up to 24 hours of use between charges, future enhancements will focus on extending battery life and broadening monitoring capabilities.

Potential Broader Applications

- While primarily designed for patient monitoring in healthcare settings, the Cosinuss 2 also has potential applications in sports medicine and remote area health monitoring.
- Its ability to provide continuous, accurate vital signs monitoring can be particularly beneficial in environments where traditional monitoring tools are impractical.

Appendix: Visual Aids and Support

- Further support that can be provided includes visual aids detailing the:
  - insertion technique,
  - app interface, and
  - proper care procedures for the device.
- These aids are designed to support the textual content, ensuring that users of all levels can effectively understand and operate the Cosinuss 2.



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Thank you!

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