



## Pitch Deck

# SAFE BAND

Date

**June 2026**

Website

**<https://safeband.joao-ferreira-de-sousa.workers.dev/>**

E-mail

**[contacto.safeband@gmail.com](mailto:contacto.safeband@gmail.com)**

# The Problem We Solve



# What's Broken in Today's Systems

**01.**

**Unstable Mobile Networks**

**02.**

**Blind Search**

**03.**

**Inexistent Medical Data**

# Our Solution



**Traditional Mobile  
Networks Workaround**



**Visual Cues to Guide the  
Medical Teams**



**Valuable Medical Data  
Available for the  
Assessment**

# Target Audience

## Primary Target - Event Organizers & Festival Promoters

Need reliable emergency response tools that work in crowded venues, even when mobile networks are congested.

## Operational Users - Medical & Security Teams

Use the SafeBand dashboard to receive SOS alerts, identify the probable incident zone, and coordinate faster interventions.

## Final Beneficiaries — Event Attendees

Wear the wristband, trigger an SOS alert with one button, and become easier to locate through zone-level positioning and visual guidance.



# Competitors

## Never Lose Your Crew Again

STAY CONNECTED WITHOUT INTERNET OR LTE

### Crowd Compass - Off-grid Friend Finding

Helps festival attendees find and message their friends without relying on phones, internet or cellular service. However, it is designed for peer-to-peer coordination, not medical emergency response.

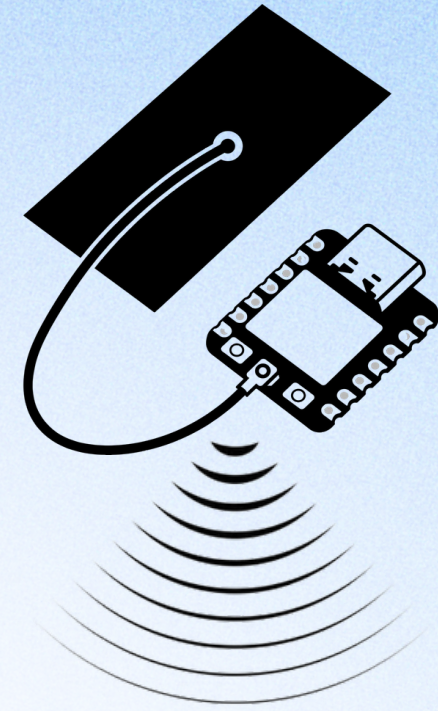
### Totem Compass - Festival Location Device

Uses GNSS and mesh communication to point users toward their group in crowded or off-grid environments. Its focus is group navigation, not event-wide triage or responder coordination.

### Appmiral SOS Alert - Festival App Emergency Feature

Allows festival-goers to send an SOS alert and share live location with security or first-aid teams. Its limitation is that it remains app-based and depends on the attendee's smartphone.

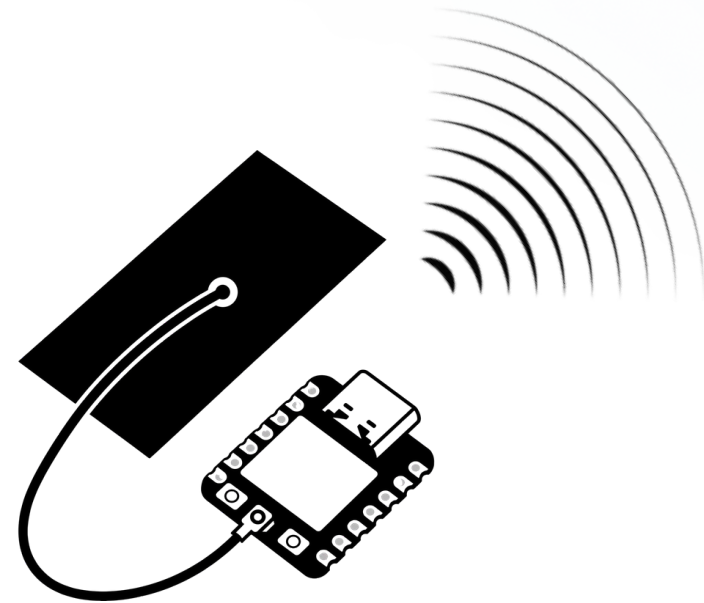
# System Architecture



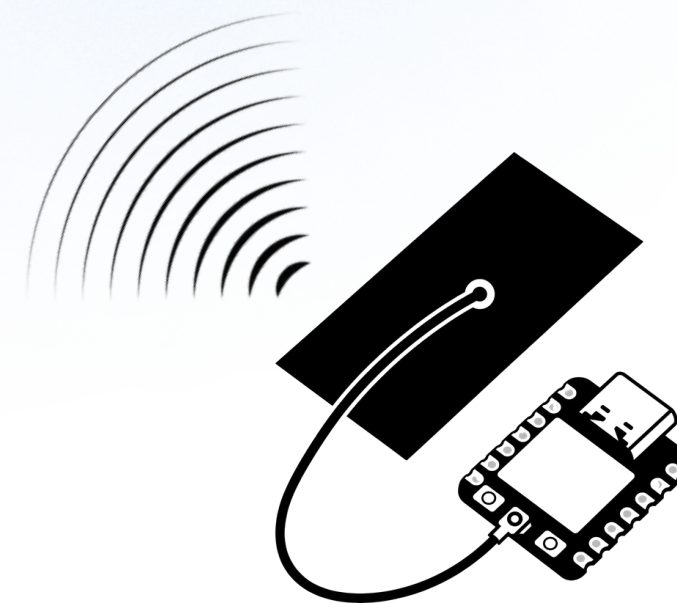
BLE Beacon



SafeBand

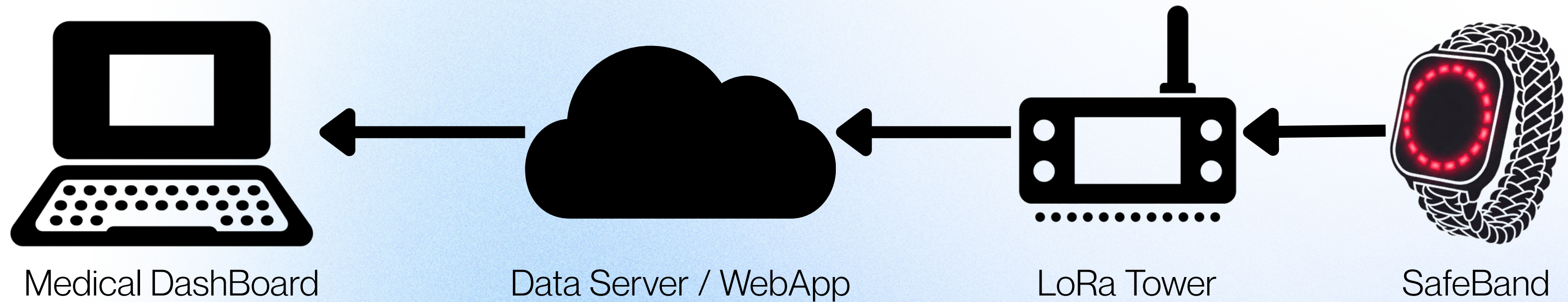


BLE Beacon



BLE Beacon

# System Architecture



# Meet the Team



**Valentim  
Maksymchuk**

Responsible for communication systems



**João Sousa**

Responsible for website, WebApp and database server development



**Juan López**

Responsible for the co-design of the project's general architecture and prototype implementation



**João Falarido**

Responsible for the co-design of the project's general architecture and prototype implementation



**João Jesus**

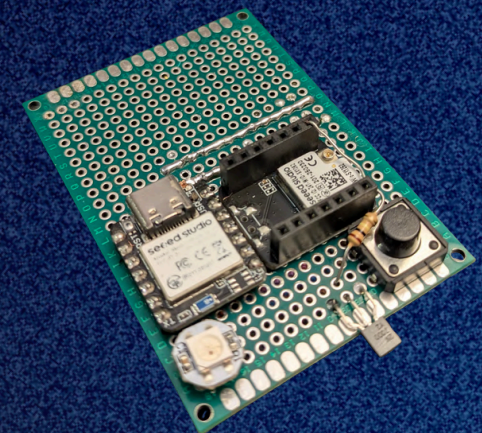
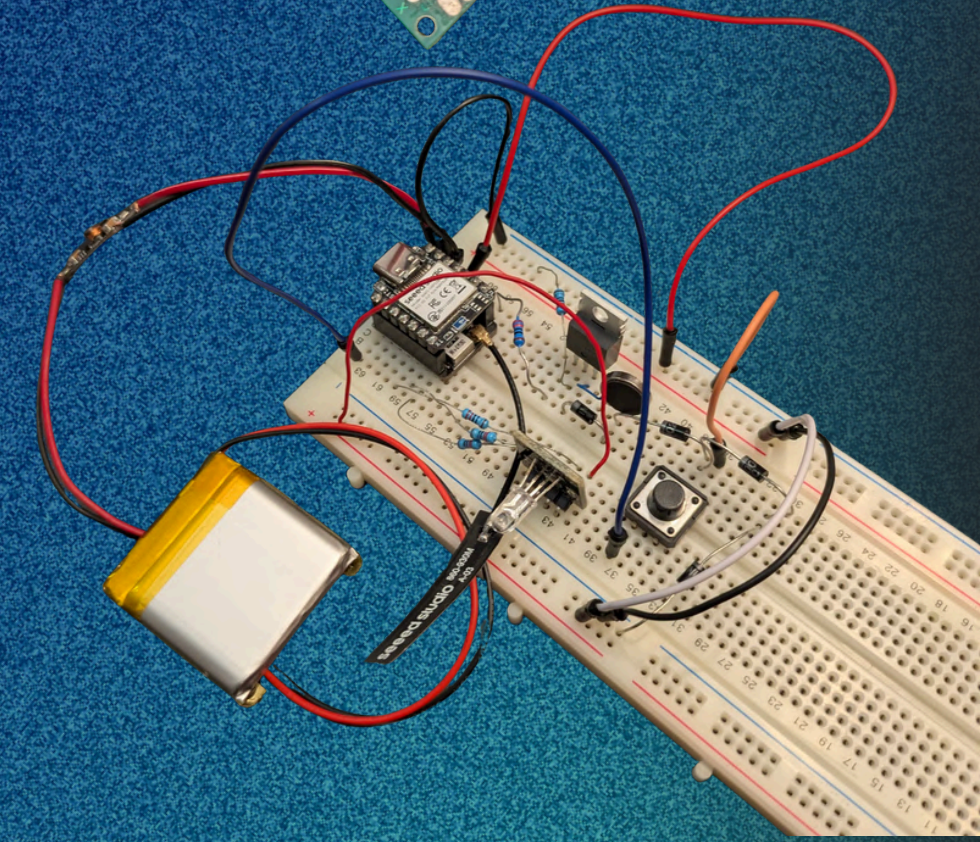
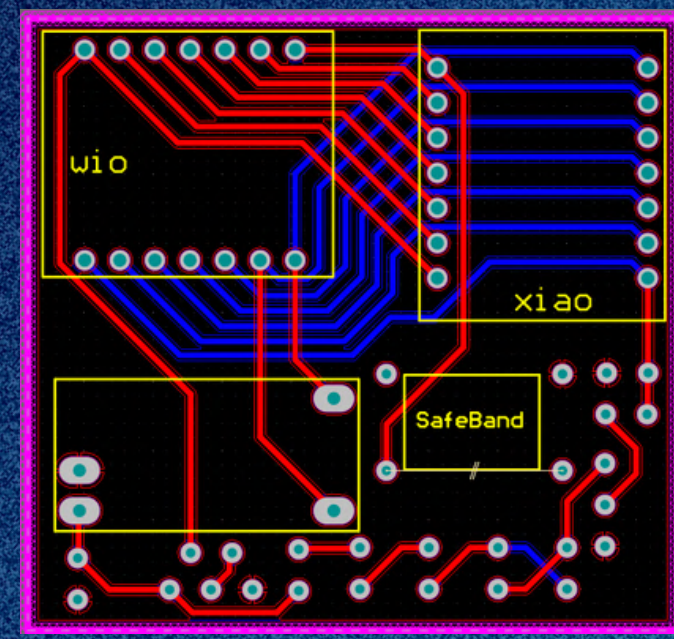
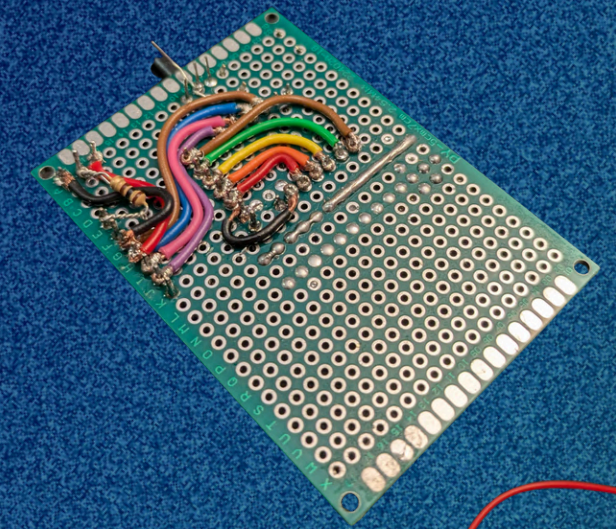
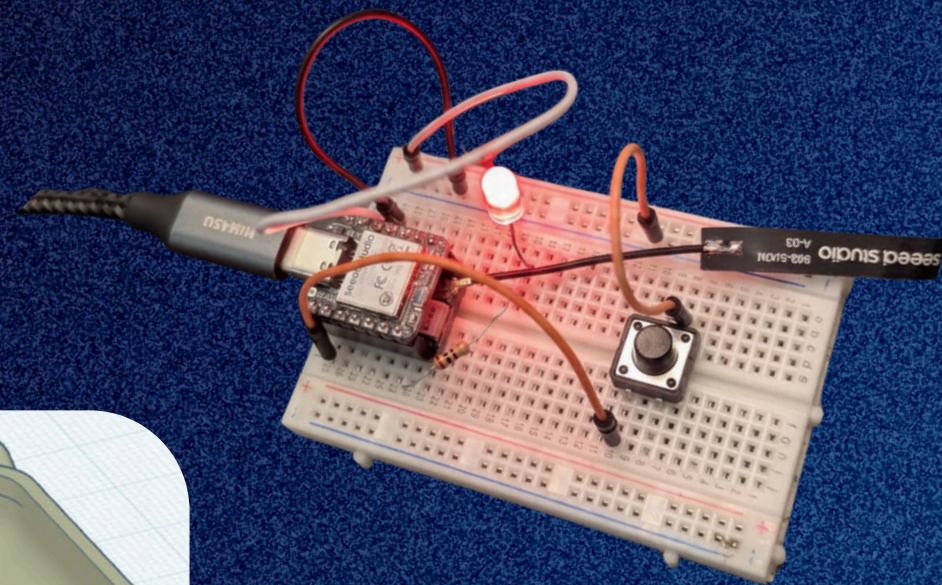
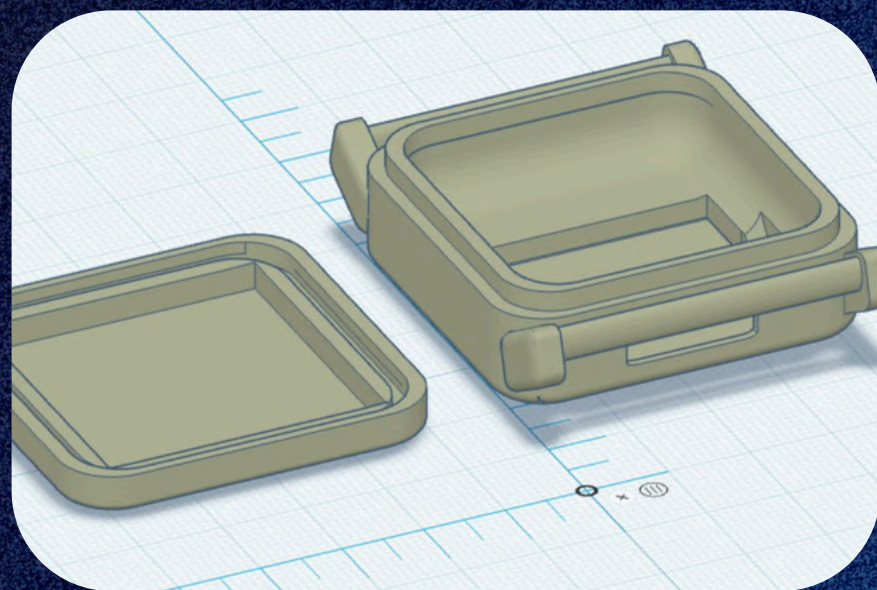
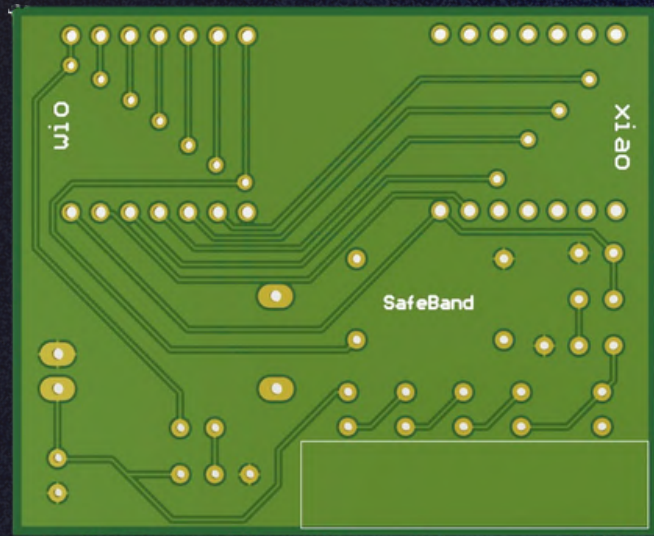
Responsible for blog communication



**Bárbara Modesto**

Responsible for sponsor communication and the project's visual identity

# The Prototype





# Introducing the SafeBand App



# Key Features

The SafeBand application puts event safety directly into the user's hands. By bridging the gap between personal mobile devices and wearable hardware, our platform ensures that help is always just a tap away, providing medical teams with the critical data and visual cues needed for an immediate response.



## Smart Health Profiles

Secure, instant access to vital medical data—including blood type, allergies, and current medications—ensuring emergency teams are fully informed.



## Interactive SOS Control

Trigger emergency alerts directly from your phone, with a dedicated interface to provide real-time details about the situation to medical teams.



## Wearable Connectivity

Seamlessly syncs with your SafeBand wristband to monitor battery levels and trigger physical light indicators on the device for immediate visibility.



## On-Demand Visual Alerts

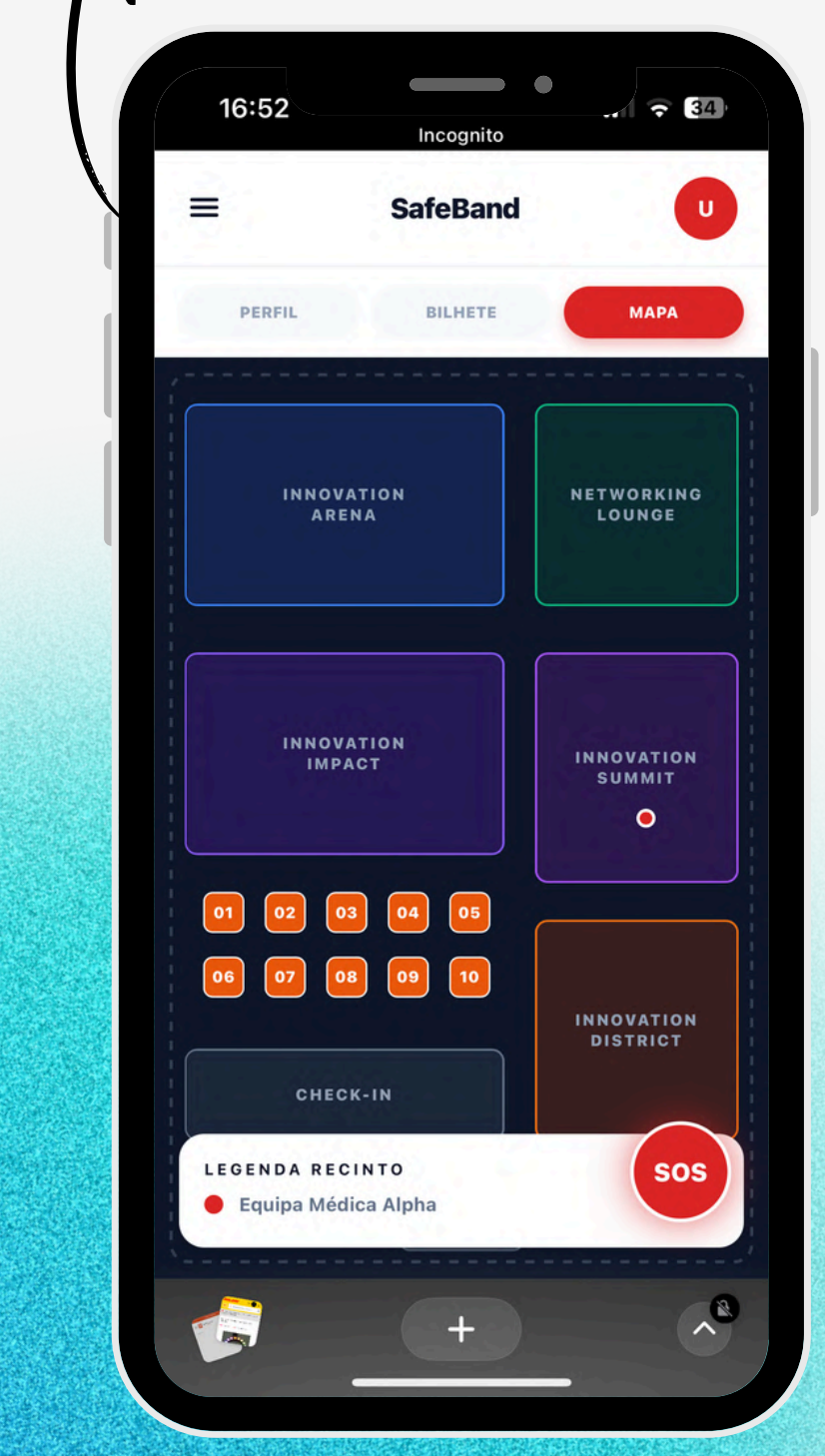
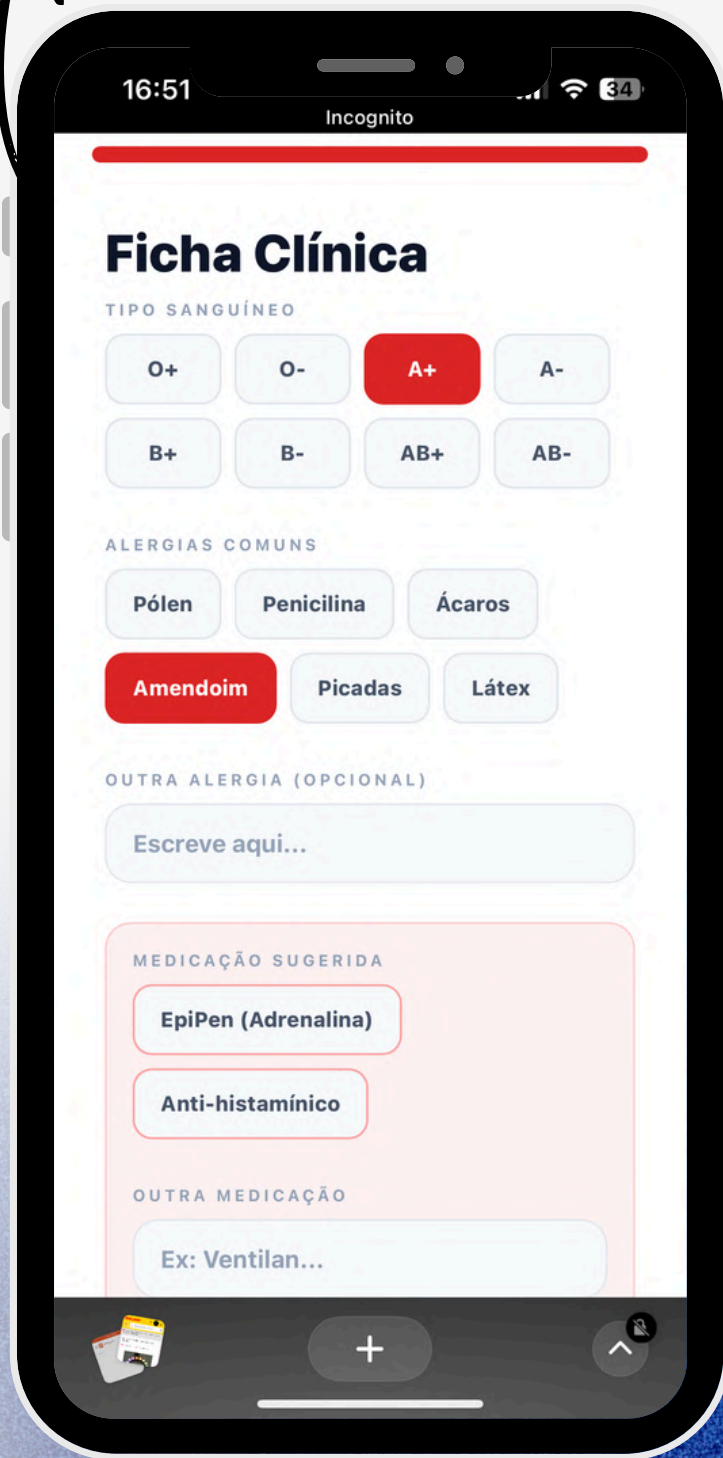
Manually activate visual indicators on your wristband via the app, providing a life-saving signal in low-light conditions or crowded areas.

## Clinical Profile

## APP

## Request SOS

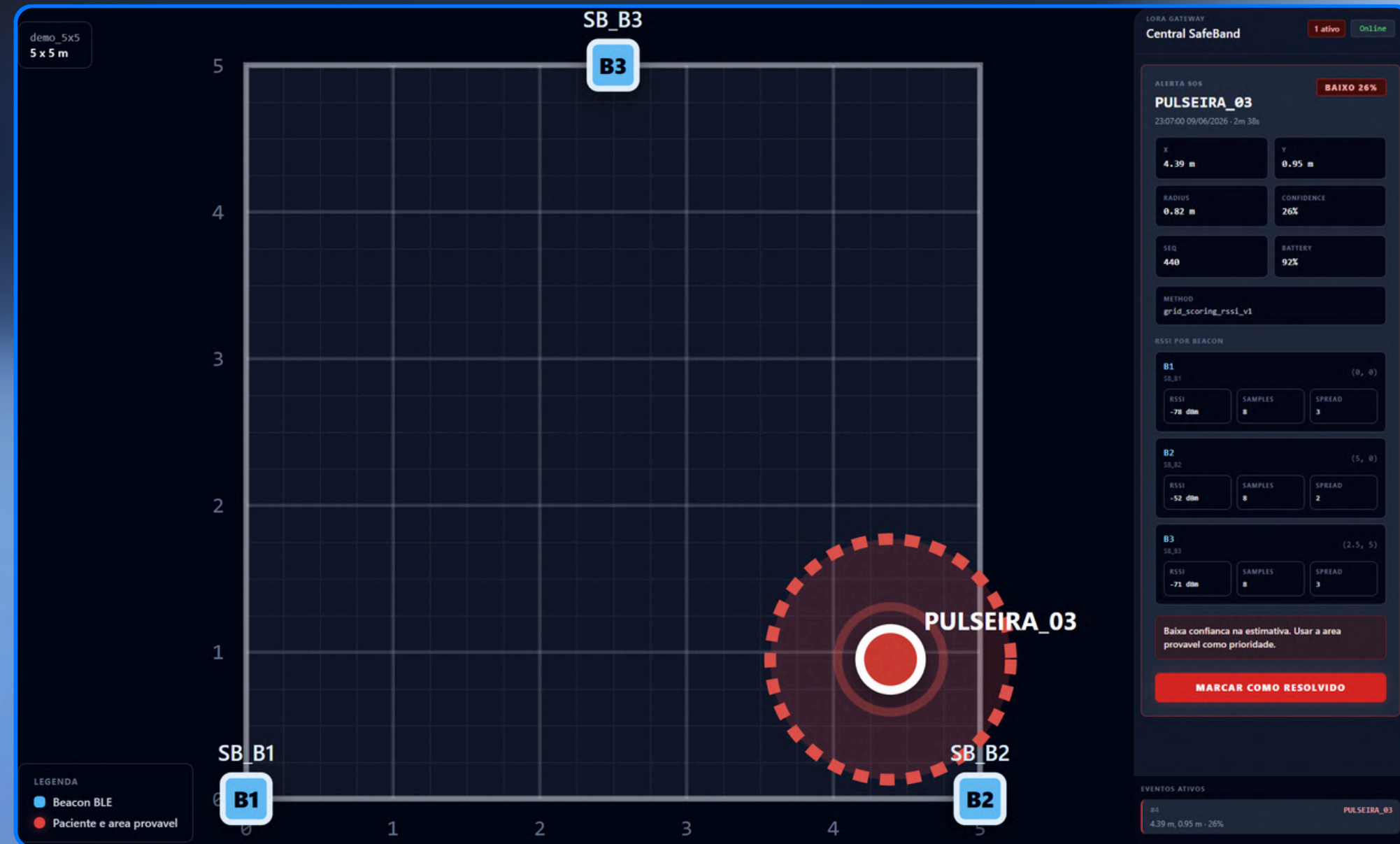
## Map



## Communication System

From SOS trigger to probable location

- 01**  **BLE beacons provide reference signals**  
Nearby beacons act as fixed reference points.
- 02**  **Wristband prepares the SOS alert**  
Beacon readings are included for location estimation.
- 03**  **LoRa gateway forwards the alert**  
Long-range radio sends it to the backend.
- 04**  **Dashboard shows the SOS area**  
Probable position, radius and confidence are shown in real time.



# Members Contributions Software



**Valentim Maksymchuk**

- Developed the firmware and implemented BLE/LoRa communication
- Integrated the wristband, LoRa gateway and backend system
- Performed technical tests to validate the prototype's core functionality
- Developed BLE beacon-based localization



**João Sousa**

- Developed the SafeBand website and online project presence
- Built separate applications for attendees and medical teams
- Integrated the backend layer to connect the apps, LoRa gateway and emergency alert flow

# Members Contributions Hardware



**Juan López**

- Defined the overall architecture of the SafeBand ecosystem
- Implemented the wristband hardware and electronic integration
- Developed BLE beacon-based localization
- Prepared the executive summary and project documentation
- Created and organized the bill of materials
- Supported hardware integration and component selection for the prototype



**João Falardo**

- Defined the overall architecture of the SafeBand ecosystem
- Implemented the wristband hardware and electronic integration
- Prepared the executive summary and project documentation
- Created and organized the bill of materials
- Supported hardware integration and component selection for the prototype
- Designed and developed the wristband PCB

# Members Contributions Communication



**João Jesus**

- Managed project communication through the blog



**Barbara Modesto**

- Came up with the projects visual identity
- Produced the demo video and project poster
- Contributed to project communication and presentation materials
- Developed and supported frontend work across the attendee and medical team applications



1 Pulseira - 1 Seed esp - lora  
- 1 Bateria 500mAh  
- 2 LEDs  
- Motor de Vibração  
- NMOS  
- Condensadores

TORRE - LilyGo  
- CAIXA



CONTACT US

# Help Us Make Fun Safer



Date

27 June 2026

Website

<https://safeband.joao-ferreira-de-sousa.workers.dev/>

E-mail

[contacto.safeband@gmail.com](mailto:contacto.safeband@gmail.com)