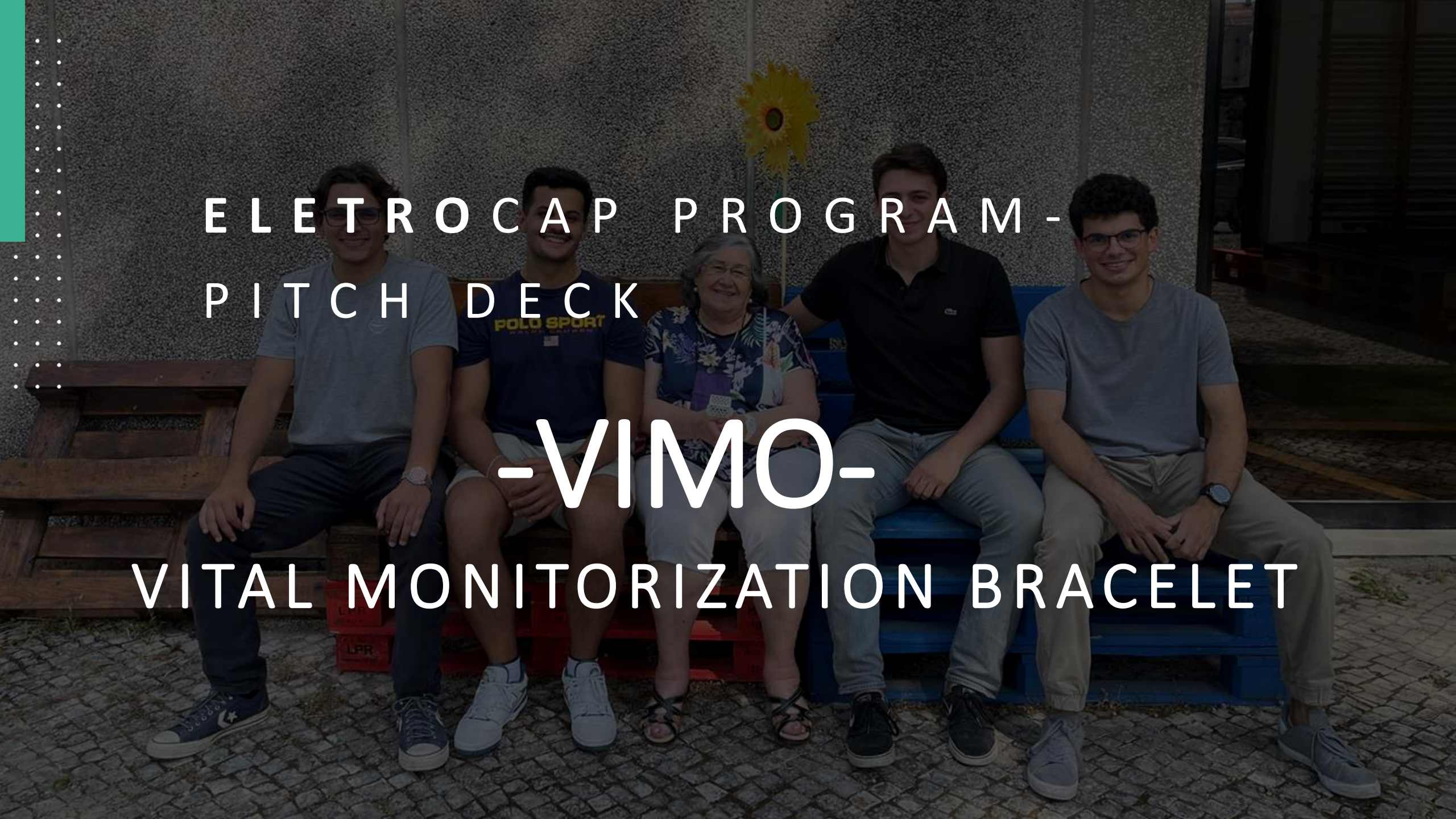


ELETROCAP PROGRAM -

PITCH DECK

-VIMO-

VITAL MONITORIZATION BRACELET

Our Team

VIMO

Pedro Lopes

Nº 103194

Data Scientist

Vasco Martins

Nº 103196

Hardware Technician

Tiago Dias

Nº 103238

System Modulator

Our Team

VIMO

Miguel Pereira

Nº 103254

Network Architect

António Quendera

Nº 103321

Front-end Developer

Bernardo Santos

Nº 103570

Eletronics Engineer

Problem Definition

VIMO

- In Portugal, more than 44.100 elderly people live in isolation
- It’s hard to assure the safety of these people
- They are exposed to falls and other incidents

Solution

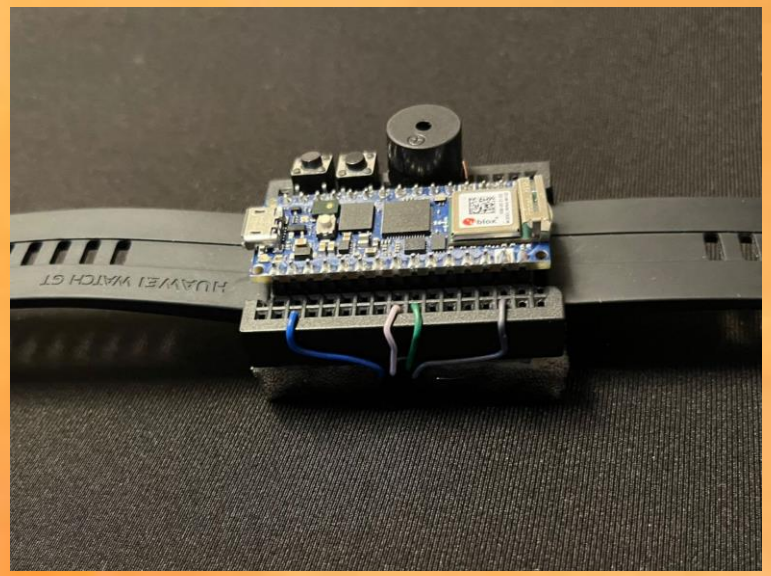
VIMO

- A bracelet that detects falls and abnormalities in heart rate
- It communicates autonomously and remotely to an app
- The app showcases the information to a relative or someone with access

Components

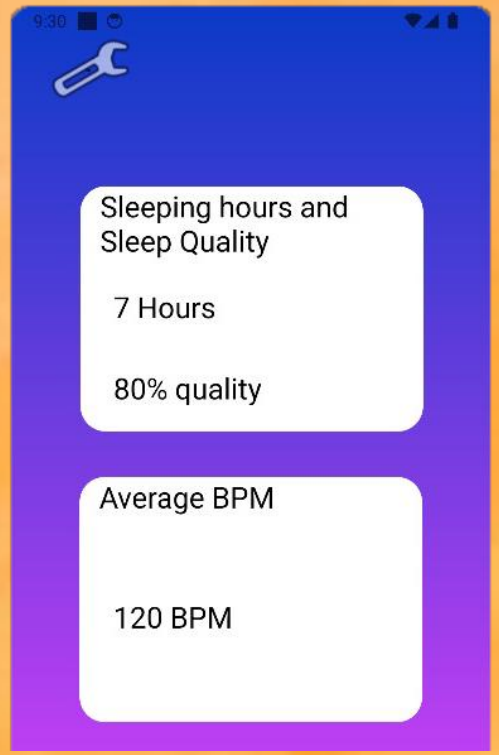
VIMO

Bracelet



Local Router

App



VIMO

processed data

data

Local Router

Server

feedback

Bracelet

Solution Visualization

App

Solution Beneficiaries

VIMO

- Family members who have elder relatives living alone.
- Elderly institutions and professional caretakers.
- The elders themselves.

Competitors

VIMO

VIMO		Livindi	envoy at Home	ALOE CARE HEALTH	simpl™
Panic Button	✓	✓	✗	✓	✓
Vitals Tracking	✓	✓	✗	✗	✗
Sensors	Wearable	Standalone	Standalone	Standalone	Wearable and Standalone

Partners

VIMO

- We found the perfect partner in Fundação LIGA
- Working together was very important in the testing phase and validation

Challenges Faced

VIMO

- Delay in collecting all technology
- Sensors malfunction
- Identification of patterns
- Connection between components

Solution Costs and Benefits

VIMO

- **Development:** Bracelet prototype + Local router = 140€
- **Product:** Commercialized version = 45€ + 10€ (monthly subscription)

- Sense of security for the elders and their relatives
- Faster response to emergencies
- Storage of heartbeat data that can be analysed by a medical professional

Achieved Results - Prototype

VIMO

- Bracelet:
  - Accurate data collecting;
  - Strong connection with the local router;
  - Comfortable and robust;

Achieved Results - Prototype

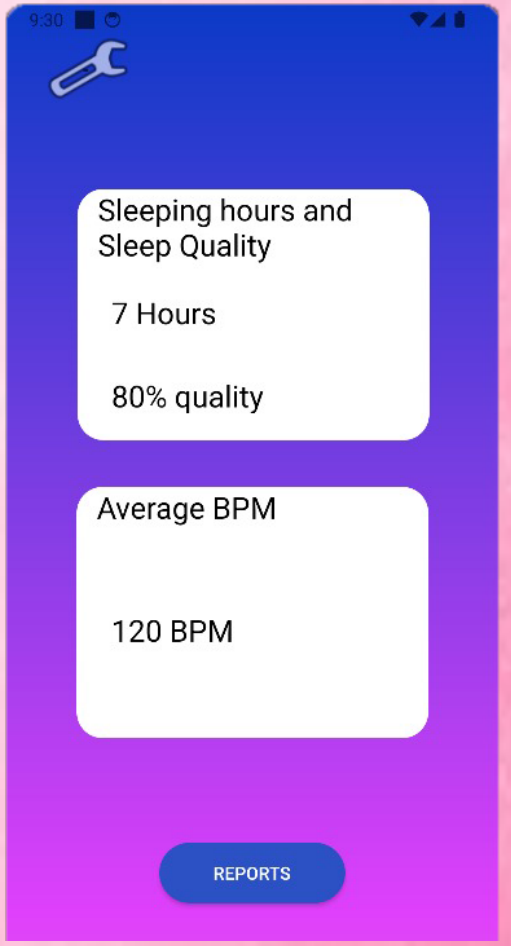
VIMO

- Local Router:
  - Runs the algorithms with good performance;
  - Capable of uploading to to firebase server;
  - Reliable connection to internet;

Achieved Results - Prototype

VIMO

- App:
  - Android compatible;
  - Able to access firebase server;
  - Shows real-time data;
  - Capable to send notifications;



Achieved Results - Testimony

Ivone, 87 anos

“Acho que é ótimo para as nossas idades. Eu tenho 87 anos, vivo sozinha e se eu cair o gato não consegue avisar ninguém.”

Lúzia, 87 anos

“Aconselho a toda as pessoas que vivem sós, que usem. Projetos deste género fazem falta.”

Team Individual Contributions

VIMO

Pedro Lopes

- Local router implementation
- Data base on router
- Firebase server selection
- Interviews

Vasco Martins

- Bracelet components research
- Configuration of buttons, buzzer and local router
- Testing the vital signs sensor
- Video production
- Contacts with partners

Tiago Dias

- I2C research
- Interviews script
- App design
- Video recording

Team Individual Contributions

VIMO

António Quendera

- Low fidelity app prototype
- Figma design
- Interviews
- App implementation

Bernardo Santos

- Full bracelet assembly
- Processor research
- Implementing BLE connection
- Creation of the prototype container
- All-round development testing

Miguel Pereira

- Team Management
- Site development
- Study and development of the algorithms and connection
- Algorithm testing
- Real life testing planning

QR Codes

Site:

Blog:

More info: