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TRAQUA



Sponsor

The sponsor of this project is [Instituto Superior de Engenharia do Porto](#).

Project Brief

The goal of this project is to design, develop, and test an innovative smart version of an everyday object, specifically a smart hydration bottle. The product aims to enhance the user experience by integrating advanced technology that improves water quality, hygiene, and hydration habits. The project combines technological innovation with user-centered design to create a solution that responds to current market needs, sustainability challenges, and health-conscious consumer trends.

The project requirements are:

1. Technical Feasibility - the solution must be achievable using available technologies such as sensors, microcontrollers, and mobile app integration.
2. Sustainability - the product should reduce environmental impact by promoting reusability, minimizing waste, and using durable materials.
3. User Experience - the design should be intuitive, convenient, and suitable for everyday use, particularly for active users.
4. Hygiene and Safety - the bottle must ensure water safety through integrated sterilization and comply with health and safety standards.
5. Innovation - the final solution should offer a clear added value compared to existing products on the market.
6. Comply with the following EU Directives:
 1. Electromagnetic Compatibility Directive ([EMCD](#));
 2. Low Voltage Directive ([LVD](#));
 3. Machinery Directive ([MD](#));
 4. Radio Equipment Directive ([RED](#));
 5. Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive ([ROHS](#));
7. Mandatory adoption and use of the International System of Units ([The NIST International Guide for the use of the International System of Units](#))

8. Use open source software and technologies.

Participants

Institution: Instituto Superior de Engenharia do Porto

Team N.: 3

Students:

- Rieke Platthaus
- Maria Włodarczyk
- Inès Margand
- Guillem Vázquez Rolduá
- Maximilian Salmi
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Project Coaches:

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- Pedro Guedes (pbg 'at' isep 'dot' ipp 'dot' pt)

Client:

- Client Name, email, etc.

Contents

Milestones [Milestones](#)

Logbook: [Weekly Report, Meetings, Activities](#)

Report: [Report](#)

Deliverables: [Links to all deliverables](#)

Contacts

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- Rieke Platthaus, 1252485@isep.ipp.pt

Utilities

- [DokuWiki Syntax](#)
- [Videos on how to use DokuWiki](#)

Acknowledgements

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- Prof. João Correia Lopes, DEI, FEUP (wiki template)

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