Our city experiences | Digital art



Sponsor

For now, the only sponsor of this project is Instituto Politécnico do Porto ISEP.

But we would like to get sponsored by the Metro of Porto.

Project Brief

We aim to transform public waiting areas like metro and train stations into interactive digital art spaces. A large screen, will display a collaborative digital canvas where people can contribute drawings in real time. Participants can join by scanning a QR code with their phone, which leads them to a web-based application, or by using a provided integrated tablet. AI moderation ensures that all submitted drawings are appropriate before they appear on the public display.

By incorporating features such as different drawing tools, interactive engagement (e.g., likes, reactions, and voting), and themed prompts, the project fosters creativity and community interaction in spaces that are usually passive and mundane. The goal is to make waiting times more engaging and enjoyable by turning them into moments of artistic expression.

The research made highlights that in Porto’s metro system, waiting times typically range from 5 to 15 minutes, with some routes (such as the airport line) having longer intervals of up to 30 minutes. On a broader scale, European cities with high-frequency transit services have waiting times between 1-5

minutes, while less active areas see waits of 15-30 minutes. This presents an opportunity to utilize these waiting periods for interactive and creative engagement.

We will design, build and test a smart innovative solution (device, process, service, etc.) that makes cities more humane, inclusive, sustainable and ethical. The purpose, target user segment and the full set of device requirements are to be defined by the team based on the client requirements, state of the art, market, sustainability and ethical analyses.

- Requirements;
  - sustainable and ethical;
  - Use low cost hardware solutions;
  - Use open source software and technologies;
  - Adopt the International System of Units (The NIST International Guide for the use of the International System of Units);
  - Comply with the LVD, EMCD, MD, RED, ROHS EU Directives;
- Comply with the following EU Directives:;
  1. Low Voltage Directive (LVD);
  2. Electromagnetic Compatibility Directive (EMCD);
  3. Machinery Directive (MD);
  4. Radio Equipment Directive (RED);
  5. Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive (ROHS).;

Participants

Institution: Instituto Superior de Engenharia do Porto

Team 2.:

Students:

- Tim Norrgård
- Jouke Klinkenberg
- Mateusz Cieśliński
- Esther Sala Cao
- Victor Van Cauwenberghe
- Flavius-Cristian Blanariu

Project Coaches:

- Abel Duarte (ajd 'at' isep 'dot' ipp 'dot' pt)
- Jorge Justo (jfj 'at' isep 'dot' ipp 'dot' pt)
- Maria Benedita Malheiro (mbm 'at' isep 'dot' ipp 'dot' pt)
- Maria Cristina Ribeiro (mcr 'at' isep 'dot' ipp 'dot' pt)
- Manuel Silva (mss 'at' isep 'dot' ipp 'dot' pt)
- Paulo Ferreira (pdf 'at' isep 'dot' ipp 'dot' pt)
- Pedro Guedes (pbg 'at' isep 'dot' ipp 'dot' pt)

Client:

- ISEP, mail@isep.ipp.pt, +351 22 834 0500

Contents

Milestones Milestones

Logbook: Weekly Report, Meetings, Activities

Report: Report

Deliverables: Links to all deliverables

Contacts

- Tim Norrgård
  - 1242368@isep.ipp.pt
  - Linkedin - Tim Norrgård
- Jouke Klinkenberg
  - 1242322@isep.ipp.pt
  - Linkedin - Jouke Klinkenberg
- Mateusz Cieśliński
  - 1242341@isep.ipp.pt
  - Linkedin - Mateusz Cieśliński
- Esther Sala Cao
  - 1242312@isep.ipp.pt
  - Linkedin - Esther Sala Cao
- Victor Van Cauwenberghe
  - 1242395@isep.ipp.pt
  - Linkedin - Victor Van Cauwenberghe
- Flavius-Cristian Blanariu
  - 1242316@isep.ipp.pt
  - Linkedin - Flavius-Cristian Blanariu

Utilities

- DokuWiki Syntax
- Videos on how to use DokuWiki

Acknowledgements

- Sponsor (sponsor)
- Eng.º Vítor Costa Cerqueira, DEE, ISEP (wiki installation and management)
- Prof. João Correia Lopes, DEI, FEUP (wiki template)

— *European Project Semester at ISEP* *2025/02/13 17:42*

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