Logbook

Weekly Report

1st Week Report (24-02-2024 - 28-02-2025)

In the first week, we got to know each others strengths and personal interests. We started discussing the topics and decided on a top three by listing the pro’s and cons. We were informed that our second choice, Smart Health and Well-being, is our topic.

2nd Week Report 03-03-2025 - 07-03-2025

In the second week, we explored different approaches to define our topic within the Smart Health and Well-being domain. On March 5th, 2025, we gave a presentation introducing our selected topic, its relevance, and the intended target audience.

This week also included our first official meeting with all the EPS project supervisors, where we discussed our refined problem definition and target group. We brainstormed further on potential solutions and considered whether we needed to narrow down our audience. Additionally, we got to know the supporting teachers and learned how they could assist us — for example, by providing technical insights or advising on available materials.

In the afternoon, we participated in a Design Thinking workshop. During these sessions, we reshaped our initial concept and decided to shift our main idea from a smart water bottle to a smart hydration station. The workshop also helped us better define our target users: semi-professional and outdoor athletes.

3rd Week Report 10-03-2025 - 14-03-2025

We concentrated on both cooperation and the technical aspects of our project during the week of March 10, 2025.

We talked about our team-building activities on Monday and came to the conclusion that effective teamwork is crucial for our organization.

Our course on embedded systems began on Thursday, March 11. Additionally, we started using a microcontroller for programming, which was a novel and intriguing step for us.

On March 12, the next day, we updated the report and got ready for our next meeting.

We finally had the meeting on March 13 and carried on with the project. We concentrated on the system's structural drawing and black box diagram.

4th Week Report 17-03-2025 -21-03-2025

This week, we started with thinking about the etical part of our project and we re-made our black box after last weeks feedback.

Then to make sure that the links and things originate from Porto-based suppliers or businesses, we also revised the list of materials and components for the deadline on Tuesday.

We also devoted extra time to investigating the project's marketing and communication components, including study on the canvas business model and the state of the art. Next, we created the logo and brand name (BiboLink).

For the presentation we made a structural drawing & explanation of the mechanism of the supplement dispense.

5th Week Report 24-03-2025 -28-03-2025

We presented our flyer proposal, the Business Model Canvas, and our elevator pitch during this week's Marketing and Communication session. We ensured that everything was proper on the wiki site and used the input we received to improve the content.

We received input on the list of materials and components during the meeting last week. We had to verify that the selected parts complied with our specifications, certain numbers were not typed correctly, and we were not permitted to use Amazon links.

We then worked on the structural drawing and system schematics so that we could present them at the meeting on Thursday. Additionally, we completed the cardboard model and the graphics ahead of schedule.

6th Week Report 31-03-2025 -04-04-2025

We continued our investigation into the PEZ process and worked on the application wireframe this week.

The wiki report also required a great deal of work. To make sure everything would be prepared in time for the interim report due next Tuesday, we distributed the key chapters among the team members.

Additionally, we used Bendita's structure to prepare and deliver the interim presentation. Finally, we made great strides in finishing the 3D model of our product.

7th Week Report 07-04-2025 -11-04-2025

The interim report was due on Tuesday, and we had the interim presentation this week. Together, we rehearsed the presentation on Monday and made a few adjustments to ensure it stayed within the allotted 12-minute period.

The problem, the key studies, project management, design idea, and a description of the future stages were all covered in the interim presentation.

Following the presentation, we were given a document outlining the sections of our report that were generated by AI. In order to allow everyone to contribute to the rewriting and improvement of particular sections, we divided the chapters.

Additionally, we began preparing the power consumption calculation for the meeting the following week.

8th Week Report 14-04-2025 -18-04-2025

We completed the remaining components of the 3D SolidWorks model this week, which enabled us to produce a 3D video of the structure and device. The movie shows (i) how the moving parts work and (ii) an exploded view of pertinent parts and electronic components with text captions.

To the best of our ability, we also estimated the product's and the prototype's expected costs and sales prices. This was accomplished by adding the component purchase price to the material and processing expenses in SolidWorks.

Based on the power budget and anticipated number of operating hours, we had begun estimating the product's expected operational cost last week, and we have now finished the process.

The UN Sustainable Development Goals that our solution supports were finally chosen and discussed, and we are currently updating the Wiki to include the written sections on AI.

9th Week Report 28-04-2025 - 02-05-2025

We spent this week developing and completing the list of parts for the prototype and finished product.

Furthermore, we conducted research and presented the Nestlé scandals in an ethics presentation on April 29th. The results of this presentation were also incorporated into the study.

In order to submit the updated report before the deadline on Friday, we also added our teacher's input and made improvements based on AI recommendations.

10th Week Report 12-05-2025 - 18-05-2025

During the holidays, Alex had a meeting with the teacher about the stress simulation. This simulation was completed and we presented it on Thursday during the meeting, where we also received some feedback.

Additionally, the first version of the leaflet and poster was developed, which we had to present to the class and teacher during the communication class on Tuesday.

We also brainstormed a packing solution for the Bibolink, for which a first version has been created, along with a sketch of the prototype setup. And we are also still working on rewriting the AI parts that

came from the identification site and developing additional chapters for the wiki.

11th Week Report 19-05-2025 - 25-05-2025

Based on the feedback from all the teachers, a new version of the leaflet and poster was created to ensure all details and information are correct, so they can be submitted as part of the deliverables.

After last Thursday’s meeting, we received some comments stating that, in addition to the packaging solution, we should also consider a possible afterlife for the product. Research was done on this, and we came up with the idea to make the packaging out of cork, which can later be reused as a plant pot.

Furthermore, Miko focused on programming the code for the functionality of the prototype. Till worked in the workshop on building the prototype, with support from a meeting with the teachers. The foundation is now in place, and we presented it during the meeting. We were advised to schedule another meeting with the teacher if we need help getting the prototype to work properly.

12th Week Report 26-05-2025 - 01-06-2025

Last Thursday during the project management class, we received feedback from the teacher. We divided the tasks among the group and addressed all the points that needed to be improved or adjusted before the next class.

This week, everyone worked on the paper to ensure all content is included. All chapters have been written, and next week we only need to add the final touches.

Additionally, Till worked out the content of the manual so that Olivia could complete the design this week. It was presented during the meeting, and based on the feedback, adjustments are now being made.

13th Week Report 02-06-2025 - 08-06-2025

This Thursday is the deadline for the paper. All the content is included, but we are currently making final adjustments to the formatting, spelling, and bibliography to ensure everything is ready on time.

Meanwhile, Miko and Till are still working on the prototype. The prototype is fully assembled, but it doesn't work yet because something is still going wrong, but we have help from teachers.

Olivia and Kim created the final presentation, which had to be presented on Tuesday during the communication and marketing class. During the presentation, we received feedback that we will take into account for the official final presentation.

In addition, the design of the app is still being worked on. Every detail is being carefully refined so it can be included in both the presentation and the report.

14th Week Report 09-06-2025 - 15-06-2025

This week, we had an important deadline on June 15th: uploading the final deliverables to the Wiki and sending the S&P assessments.

For the deliverables, the previously created leaflet and poster were uploaded. Alex organized the stress analysis into a clear document, including the results and the structural drawings. And we made our first concept of the video that we showed in the meeting to the teachers. We will use the feedback to make changes.

Additionally, extra information was added to the Wiki, and the final presentation was created. All slides were divided among the team members to ensure we are well prepared.
During this week the team finished the creation of the prototype and the application. Everything was tested in case of performance and functionalities. The slides for the final presentation were devided and the meeting was organised to practice it before the official presentation.

15th Week Report 16-06-2025 - 22-06-2025

The team organised the last meetings before the final presentation to practise everything and to prepare fully.

Meetings

1st Meeting (2025-02-27)

Agenda:

1. Presentation
2. Modus operandi
3. Project proposals
4. Electronic logbook (Wiki)

Minute:

All topics were presented to us, and we created a top 3 list, from which Smart Health and Well-being was ultimately chosen.

2nd Meeting (2025-03-06)

Agenda:

1. Find a specific problem
   - Do research about the state of art

2. Find a niche or a different target audiences

Minute:

In this meeting, we received a lot of help from our teachers, opportunities for further discussions, and a clearer perspective on the project.

3rd Meeting (2025-03-13)

Agenda:

1. Solution
2. Specific problem
3. Target audience
4. Technical Questions
5. Research and state of the art
6. First concept

Presentation: Presentation 3rd meeting
Present: Rafael

Minute:

- Check the competition and identify possible improvements.
- Create a list of components for a specific machine for the blackbox
- Draft a structural outline of the machine

4th Meeting (2025-03-20)

Agenda:

1. Visuals + logoLogo
2. Black box
3. Stuctural drafts & visual drafts
4. Material & components list
5. Canvas business model
6. Questions

Presentation: Presentation 4th meeting
Present: Till

Minute:

- Write down why we choose the material & components and what dimensions

- Make the canvas business model more detailed

5th Meeting (2025-03-27)

Agenda:

1. Improved bill of components
2. Systems schematics
3. Structural drawing
4. Visuals & cardboad model

Presentation: Presentation 5th meeting
Present: Everyone

Minute:

- List of materials and components
- General comments
- Electricity circuit
- Model (integrate colors of logo)
- Supplement pusher
- Report and wiki

6th Meeting (2025-04-03)

Agenda:

1. Application wire frame
2. Pez mechanism research
3. Questions about the wiki

Presentation:

6th_meeting_03-04-2025.pdf

Present: Everyone

Minute:

1. Work on the wiki
2. Change aplicatie wire frame

7th Meeting (2025-04-10)

Agenda:

Interim presentation

1. Problem
2. Key studies (state of the art, sustainability aspects, market analysis and ethical considerations.
3. Project management
4. Design concept (Physical Device and Structure, Smart Features & Technology, Mobile Application Interface)
5. Summary and next steps

Presentation:

interim_presentation_10-04-2025.pdf

Present: Everyone

Minute:

1. Ordered List Item Develop the 3D model
2. Make a video of the solidwork model
3. Re-writte the AI in the report

8th Meeting (2025-04-16)

Agenda:

1. Solidwork model
2. 3D model video
3. Cost of operation
4. Cost of calculation product / prototype

Presentation: Presentation 8th meeting
Present: Everyone

Minute:

- Change de report
- Work on the list of materials
- Improve the video

9th Meeting (2025-04-30)

Agenda:

1. Final list of components
2. 3D model video
3. Application
4. Stress simulation

Presentation: 9t meeting presentation
Present: Everyone

Minute:

1. Update the links in the final material list and submit it so the teacher can order everything needed for the prototype.
2. Say something in the 3D video about the solar panels.
3. Organize a meeting with the teacher so they can explain how the stress simulation works

10th Meeting (2025-05-15)

Agenda:

1. Stress analysis
2. Poster
3. Leaflet
4. Packing solution
5. Prototype

Presentation:

Presentation 10th meeting

Present: Everyone

Minute:

- We have expanded the stress simulation to include the worst-case scenario, ensuring the product can withstand extreme conditions.
- The poster and leaflet need some changes (in miro are the details)
- For the packing solution, we need to create a afterlife to extend its value.
- Set up a meeting with the teacher for the next steps for the prototype.

11th Meeting (2025-05-22)

Agenda:

1. Updated leaflet & poster
2. Packing afterlife
3. Prototype

Presentation:

11th_meeting_22-05-2025.pdf

Present: Everyone

Minute:

- Apply the final adjustments to both the leaflet and the poster based on recent feedback. Once finalized, upload the updated versions to the deliverables.
- Ensure the Packing solution and the afterlife concept for the packing solution is clearly documented and integrated into the report.
- Begin working on the test model for the prototype. A meeting can be scheduled if coordination or technical input is needed.

12th Meeting (2025-05-29)

Agenda:

1. Protoype
2. User Manual

Presentation: demonstration prototype

eps_manual.pdf

Present: Everyone

Minute:

- Work on prototype
- Finish writing the paper
- Use the feedback to change the user manual

13th Meeting (2025-06-05)

Agenda:

1. Protoype
2. End presentation (What are the topics ?)

Presentation: X
Present: Everyone

Minute:

- The teacher joined us to take another look at the prototype.
- The paper is also being reviewed, and adjustments will be made before it is sent to the other university.
- The focus is now on finishing the wiki and making sure all deliverables are uploaded online by next week.

14th Meeting (2025-06-12)

Agenda:

Presentation:
Present: Everyone

15th Meeting (2025-06-18)

Agenda:

Final presentation

Present: Everyone