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Logbook

Weekly Report

1st Week Report

The team got to know eachothers strengths and weaknesses in relation to their education and group work in general. Based on experience and motivation the team managed to eliminate themes from the project list, resulting in a list of 6 themes. We dicussed the selected themes and ended up with our top 3: digital art, innovative city experiences and smart bug/smart food production. The team experienced difficulties with choosing direction within each theme, resulting in miscommunication and an overdue mail about our preferred project themes. There was a meeting regarding miscommunication to prevent incidents in the near future.

2nd Week Report

The team started the week by brainstorming ideas related to the themes of city experiences and digital art. During this process, the team was assigned the smart bug/smart food theme. After discussing both options, the team decided to focus on smart food, as the motivation and interest within the group were higher for this direction.

The team explored different problems related to this theme. One idea was to focus on urban farming in small living spaces, such as student apartments. The discussion included the concept of small grow pods, including the possibility of stackable pods to optimize limited space.

One challenge during the week was identifying a specific and innovative problem to solve, rather than simply replicating grow pod products that already exist on the market.

After the meeting on Thursday, the team discussed different plant types that could be used in the system, including plants, fruits, herbs, and flowers, and considered which would be most suitable for the concept.

The design thinking session on Friday helped the team refine the idea further. Through additional brainstorming, the focus shifted to identifying a more specific problem. This led to the concept of combining a smart grow pod with digital wellbeing and screen-time reduction. The idea is inspired by study applications where virtual plants grow when the user avoids using their phone. The concept follows the same principle, but with a real plant growing inside a smart pod.

The team also discussed using basil as the initial plant for the prototype, since basil reacts quickly to environmental changes such as reduced water or light, making the feedback visible to the user. The system is designed to remain ethically responsible, meaning that the plant will never be harmed or killed intentionally. Instead, users will be rewarded with optimal plant growth conditions when they keep their screen time within their chosen limits.

3rd Week Report

During this week, the team focused on refining the project concept, as well as organizing further work and responsibilities within the group.

The team discussed whether the concept of a Smart Grow Pod for digital wellbeing is realistic and suitable. The system design was also reviewed using a black-box model and a structural overview to understand how the components interact.

Key design decisions included choosing basil and grains for the prototype. The team discussed components such as an ESP32 microcontroller, basic sensors, a water pump, and a reservoir. The plan is to keep the system simple and expand if possible.

Research and writing tasks were divided in Jira for the background chapter. The rest of the team is also contributing ideas through brainstorming.

The concept was further developed by creating a logo and discussing design ideas, including using gravity for watering by placing the water source at the top, for example. The team also visited the school's systems with Abel to look at water pumps.

Lastly, the team discussed key questions regarding the concept, component realism, scope, and related aspects.

4th Week Report

What went well:

- The team prepared a proper presentation and finished most of the deliverables on time.

What went not so well:

- There was no agenda
- Low engagement with each other
- The team didn't review each other's work
- No proper forms of communication off-campus
- Jira tasks didn't get updated in time

Actions:

- The team should start communicating and engaging more off-campus. We need to show more engagement towards members’s to-review tasks and reply to each other on WhatsApp, even if it’s confirmation on reading a message.
- The team should keep going into discussion when we disagree with opinions, it opens new windows and rooms for idea.
- The team should stop leaving each other’s messages unanswered.

19/03/2026: Scrum has a hierarchy of themes, epics, features and tasks. The free version of Jira however has many limitations on story mapping. It's impossible to both link existing tasks to features and vise versa. Finally, subtasks of features are invisible on the board. Keeping a proper Scrum timeline is important for management and reporting, so the team has decided the following.

- Instead of tasks, the team decided to use more granular features. These will be more detailed and will contain subtasks when necessary.
- Epics will keep serving their purpose, being groupings of features. Every deliverable becomes its own epic.
- Epics will be grouped under labels, these will serve as a substitute for themes.

Because this sprint has already started however, with a load of tasks, the team has decided to implement the change starting next sprint.

23/03/2026 The team got feedback on their market analysis.

- The structure & flow of analysis are both good
- Use the TAMSAMSOM principle to further narrow down the target group
    - Additionally, use this principle in the idea formulation chapter

5th Week Report

30/03/2026 Presentation on case study of ethical business scandal for communications class was prepared and presented.

31/03/2026 Team improved the way of presenting together, feedback from ma-com presentation preparing for the Interim.

01/04/2026: After a meeting with the teachers, the team concluded the following:

- There's no uniformity in number and unit usage. When using a number and a unit, there must always be a space in between.
- Basil doesn't need light but users might want to grow other plants. The team must consider a lighting system.
- The schematic deliverable and the list of materials & components need to be revised. If help is needed, the team can contact the professor (LUL)
- The SWOT analysis needs to be corrected. Threats are external phenomena, so related to users and the area. Weaknesses are internal, like component failure.
- The team is mixing the words pod and pot in the report, only one can remain.

6th Week Report

Meetings

[Info session] 1st Meeting (2026-02-26)

Agenda:

1. Presentation

2. Modus operandi

3. Project proposals

4. Electronic logbook (Wiki)

Minute:

The first meeting was held in the auditorium with all project teams present. During the session, the supervisors introduced the EPS project themes and provided an overview of the project framework. The working methodology, expectations, and timeline for the semester were explained. Instructions were given on how to use the Wiki for documentation and reporting throughout the project.

[Retrospect] 2nd Meeting (2026-03-05)

Agenda:

1. Smart food: brainstorm regarding which problem to solve.

2. Question regarding the shape and factors.

- air flow
- humidity
- temperature
- space
- work load
- cleaning
- ...

3. Main focus of the project

4. Discuss possible technologies

5. Next steps

Minute:

During the meeting, the team discussed the direction of the smart food project. While the idea of building a dome on top of Building G was mentioned, the current focus is on developing a small, affordable growth pod for student apartments. The concept should emphasize energy resilience, potentially using solar panels and different power modes.

It was highlighted that all design decisions must be supported by ethics, sustainability and market considerations. Finally, the product should include some form of innovation to stand out in the market. The team also discussed possible plant options including vegetables, berries, and herbs.

The next steps include creating a black-box diagram of the system, researching compatible ESP32 components and starting the state-of-the-art chapter by reviewing existing solutions and competitors.

[Retrospect] 3rd Meeting (2026-03-12)

Agenda:

1. Overview of the current project concept: Smart grow pod for digital wellbeing.

2. System design overview: Black-box and structural.

3. Key design decisions: basil, hydroponic growing system.

4. Materials and component selection: ESP32 microcontroller, sensors (start with the basic: water level, ..), hydroponic reservoir, water pump(s), servo?.

5. Questions:

- Is the project concept acceptable?
- Are the system components realistic for the prototype?
- Should the team simplify or expand any part of the product?
- What is the criteria for sitation in the report?
- What is the most important moving on?
- Gantt Chart?

Minute:

This week, the focus is on writing the background section with proper citations, using the wiki as the main reference source, and including ethics and competitor pricing. The project should prioritize sustainability, affordability, and human-centered design, with attention to energy use and materials.

The concept involves a vertical hydroponic system with plants and fish, supported by a smart control system (new black box diagram). Key decisions include the level of automation and alignment with the target user group. The app will feature automation, user guidance, notifications, and a teaching function, while also encouraging community interaction and outdoor engagement.

Design should incorporate natural, locally sourced materials, with a compact structure and integrated screen. All choices must support sustainability and ethical standards. Proofreading and typo checks are required.

[Retrospect] 4th Meeting (NO MEETING) (2026-03-19)

Agenda:

1. Project progress update wiki with research, some ethics/sustainability, market analysis, component list. Flyer.

2. The new product with the app (features such as step count, daily summary).

3. No LED's - want to focus on the basis of the system.

4. No DWC → Seramis.

5. Feedback on components and materials.

6. Questions:

Minute:

NO MEETING WITH PRESENTATION

The team had a small impromptu meeting with the lecturers where they gave quick feedback.

- The materials & components list only included components.
- The list missed some vital columns such as maximum current and voltage.
- The team must now start considering local providers.
- The structural diagram was missing in the report.

[Retrospect] 5th Meeting (2026-03-26)

Agenda:

1. Presentation ⇒ update on our project.

2. Detailed schematics

3. Structural drawings

4. Cardboard model

5. Plan for the upcoming week

6. Questions:

- Feedback:
  - Components & materials list
  - Electrical system, structural diagram & detailed schematics
  - Wiki + which chapters to focus on
- Community socials as bibliography
- 3D print the prototype: need to focus on other chosen material for the “real” product itself in the report?

Minute:

We clarified the details regarding the interim presentation and report. The presentation should include: problem, project management, state of the art, ethics and market analysis, leading into the solution design, and ending with conclusion.

Moving forward, chapter 7 needs more work and should be improved. Overall, the report needs to be more professional. The group needs to improve the start page, including the title and project name. The basil plant's life cycle should be considered in the design. It was suggesten tat the user could collect seeds, and that the design could include a second pot for planting.

The group should finalize the design and update the structural diagram, as well as improve the black box.

A list of materials must be created, including relevant providers/suppliers.

If we want to 3D-print the prototype, we have to provide drawings for this. But also we need to write about the real material used in the product that we are selling.

[Retrospect] 6th Meeting (2026-04-01)

Agenda:

1. Presentation ⇒ update on our project.

2. Presenting final marketing materials - logo, color pallet, flyer

3. Structural drawings updated based on previous week feedback

4. SWOT analysis

5. Fixed black-box diagram

Minute:

The teachers gave us some feedback about the wiki. We need to fix the spaces between numbers and units, and think about adding a lighting system because some plants may need more light than basil. We also need to update the schematic and materials list by adding missing parts like a valve, and we can ask Professor LUL for help if needed. They said the SWOT analysis should also be fixed by clearly separating threats and weaknesses. Lastly, we should use only one word between “pod” and “pot” and change the wiki name from Smart Growth Pod to Screen2Green.

[Retrospect] Interim Presentation (2026-04-16)

[Retrospect] 7th Presentation Meeting (2026-04-23)

Agenda:

1. Presentation ⇒ update on our project.

2. Introduction to our App

3. 3D-Model

4. Plan for the upcoming week

Minute:

May 15th there is deadline to submit scientific paper. We need to deliver list of materials, all schematics and 3D model before students week, so Teachers can order parts for us. We need to write to Kristina and discuss and decide on final choice of beans (soil). In the leaflet we need to provide dimensions of each part of the pot. 3D model video should be self-explanatory with captions, ex. water reservoir capacity is 1 liter. Suggestion is that during final presentation we can add small plant in the pot growing during presentation. Development of the art - suggestion, when presenting software from top to bottom, first overall description Write for somebody who its familiar with the topics - start with overall view - main ideas - how focus session works.

[Retrospect] 8th Presentation Meeting (2026-04-30)

Agenda:

1. Presentation - update on our project - Wiki chapters.

2. Update on the App

3. 3D-Model

4. Electrical Schematic

5. Plan for the upcoming week

Minutes:

[Retrospect] 9th Presentation Meeting (2026-05-14)

Agenda:

1. Leaflet + Poster

2. Packaging solution

3. Update on the app

4. Update on the electrical scheme

Minutes:

Wires and Interfaces (Sockets)

- Do **not** cut any wires.

- If components do not fit properly, ask for an adapter or instructions instead. Components

- The only missing component is the step-down converter.

- All other components are already available.

3D Printing

- The files for 3D printing still need to be sent.

Paper (URGENT – TEEM 2026 Submission)

- Add personal outcomes/conclusions: Each person must write 2–3 sentences about their learning experience.

- Do not force the placement of tables or figures using `[H]`.

- Use proper LaTeX formatting for units: Example: `\SI{value}{\milli\second}`

- Remove all visible names and identifying information from the paper.

- The introduction has already been revised.

- Add citations wherever references are needed.

- Final paper deadline: end of May.

Leaflet and Poster

- Avoid repeating “Screen2Green”.

- Do not focus only on basil; refer more generally to “plants”.

- Choose either British or American English and stay consistent. We choose American English.

- Suggested text changes:

Remove: “as users reduce their phone usage” → go directly to the point.

Change: “The care conditions for the basil plant improves” → “The conditions for the plant improve”

Change: “Take care of your mind” → “Take care of the mind”

Change: “Watering system that lasts a week” → “Watering system for one week”

- Replace commas with dots where needed (number formatting).

Packaging Solution

- Consider placing the smartphone inside the tray.

- Fix typos: “recycable” → “recyclable”.

- Check whether the paper tabs are truly recyclable/biodegradable. Possible idea: tabs could be placed inside the pot and degrade over time.

App and Coding

- Change “M” to “MIN” (minutes).

Electrical Scheme

- The scheme looks good.

- Double-check everything with Luis before assembly.

Product Positioning

- Avoid focusing only on basil, as users may think the product only works for basil plants.

- Basil can be presented as the use case/example.

- Emphasize that the product can also be used for other herbs and plants.

- Market it generally as a solution “for plants”.

SUS Questionnaire

- Benedita will upload/post the SUS questionnaire.

[Retrospect] 10th Presentation Meeting (2026-05-21)

Agenda:

1. Revised poster

2. Packaging solution

3. Solid works model for testing

4. Future focuses

Minutes:

The teacher liked both of the poster designs, so we have to talk to Anna (communication) to get a final feedback on which to choose based on what is most important. The packaging solution is better, but we can move some words to more visible places so it doesn't overlap on the drawings e.g., because that makes it more difficult to read. Also, the dimensions on the outside box doesn't necessarily match the pot itself so this needs to be revised. Other than that, our manual can be straight forward or like an IKEA-manual - it's up to us. We send the files for 3D-printing the test prototype so we can see how the components fit, and then we need to do testing in solid works, as

well as a pass/fail for the smart system, and performance/load/usability for the user app. Additionally, we will have to focus on the scientific paper (due end of next week) and to write in Wiki.

[Retrospect] 11th Presentation Meeting (2026-05-28)

Agenda:

1. Posters

2. App update + test results

3. Assembled circuit + test results

4. Scientific paper

Minutes:

[Retrospect] 12th Presentation Meeting (2026-06-03)

Agenda:

1. 3D print

2. Strenght testing

3. App updates

4. User manual

5. Scientific paper

Minutes:

Scientific paper:

- Testing of the prototype: Tests we did, conditions we used, the results leading to, factors of safety, impact of that

- Impact on latency for the app, loading

- k6: remove this

Video, up to 3 minutes:

- Use our colors

- What it is

- How to use

- Why

- The outcomes

- The team

- Can look at the previous years and their videos.

Testing:

- Identify the load cases, impact, etc - lateral, vertical, worst scenario

- Falls on the floor: 1m f.eg, a child kicking it f.eg.

- Send the results to JFJ

- Conclude with factors

User manual:

- Don’t include the team members

- The product, qr code for the wiki

- Date is fine, commercial user manual

- Product image: with a siluette of a human, interacting a bit or something, a human element

- An image of the electrical has their own space

- Watering: can do it on their own also.

- Natural plant cycle —> estimated time limit. 3-6 months. Mention in the Wiki. Seringador —> a cultivation guide

[Retrospect] 13th Presentation Meeting (2026-06-11)

Agenda:

1. Component update

2. Discussing the 3D model

3. App updates

4. User manual

Minutes:

Prototype

- The prototype must be adapted to accommodate the pump solution.

- The overall product concept can remain the same, but the 3D model files need to be updated.

- The bucket can be used as the water reservoir.

- Got another nozzle if needed.

- No additional coding is required for the pump. Coding will stay as is.

- Printing the updated 3D model is now the highest priority.

Presentation

- The team can choose which communication materials to include in the presentation.

- The presentation can be submitted on Monday instead of Saturday.

Demo Day (25 June)

- Each team will have its own table.

- Materials to prepare: A3 poster (check printing options with Rui), flyer, leaflet, user manual (optional, A4 if)

- Prepare food that can be eaten without cutlery.

Next Steps

- Finalize and print the updated 3D model.

- Test the prototype.

- Deliverables for Saturday.

- Decide on a strong closing element for the presentation that effectively showcases the project and its impact.

Activities

Please register here all accomplished project activities

Start	End	Task	Description	Who
09.03.26	11.03.26	Black-box diagram	System's inputs, outputs, overall function without revealing internal components	Avkaran
09.03.26	20.03.26	Structural diagram	Drawings of the product showing the inital idea	Everyone
09.03.26	11.03.26	Flow chart	Shows the internal components of a system and how they are connected	Hanna

Start	End	Task	Description	Who
09.03.26	11.03.26	Journey map	Create a sketch of a possible user story that needs our project	Avkaran
10.03.26	10.03.26	Teaser	Create teaser trailer for the product, briefly explaining what it is and what it does	Kacper & Sophie
19.03.26	20.03.26	Flyer	Small document used to quickly share information	Ymke
23.03.26	25.03.26	Cardboard prototype	Drawings of the product showing the inital idea	Ymke
19.03.26	21.03.26	Organize Jira	Reorganize Jira using the correct hierarchy	Avkaran
05.04.26	07.04.26	App research	Research similar apps for design, functionality and performance purposes	Avkaran
08.04.26	09.04.26	App design	Make high-fidelity wireframe of app	Avkaran
09.04.26	09.04.26	User testing	User test the wireframe	Avkaran
12.04.26	12.04.26	Pre-interim team meeting	The team held a meeting to prepare for the final tasks before uploading the interim deliverables	Entire team
15.04.26	16.04.26	Interim rehearsal	The team physically came together to rehearse the interim presentation and timing it	Entire team
16.04.26	16.04.26	Interim presentation	Present our product idea at the interim presentations	Entire team
19.04.26	19.04.26	Start coding project	Started the front end project and initialized the git repo	Avkaran
20.04.26	20.04.26	Add authentication	Added authentication in the application, allowing sign in and sign up	Avkaran
24.04.26	24.04.26	Mail about water beads	Requested to hold a meeting with Cristina Ribeiro to discuss soil-replacing water beads	Hanna
26.04.26	26.04.26	Initialize back end	Initialized the Supabase back-end and activated auth functionality	Avkaran
30.04.26	30.04.26	Personal meeting about water beads	Hold a meeting with Cristina Ribeiro to discuss soil-replacing water beads	Entire team
07.05.26	07.05.26	Initial leaflet design	Make the first design for the leaflet	Sophie
13.05.26	13.05.26	Poster & Leaflet design	Finished the design and reviewed it in class	Sophie
20.04.26	26.05.26	Complete routing in app	Added all the pages in the application (landing, social zone, profile, plant stats and focus timer)	Avkaran
22.05.26	28.05.26	App testing	Finished the required tests for the deliverable	Avkaran