Logbook

This is your logbook. Insert here all relevant information regarding the evolution of your project

Weekly Report

1st Week Report

We have decided our project.
We have created our Jira instance, and learnt the first steps.
We learnt the basics about Design Thinking and the Workshop applying it to our project.
We got to know some of the most important open source software for different tasks.

2nd Week Report

Design Thinking Workshop with a 1 minute Video as result.
In the Technical Workshop we learnt the electrical basics.
In Energy and Sustainable Development we learnt about the different tools and materials in the history of mankind.
We got more clear goals in the project discussion.
In Communication we did the presentations of our project.
We got a little bit more into Jira.
We learnt to use the Wiki and the Syntax.

3rd Week Report

We learnt more about each other and the team in the Teambuilding and Cultural Differences Workshop.
We wrote an essay about the Teamwork activities and we have learnt from that. We also defined our group attitude rules.
We learnt which microcontrollers are available and how they work.

4th Week Report

We made a flyer to promote our composter.
We specified our composter to coffee and mushrooms.
We designed the first prototype for the new idea.

5th Week Report

We made a presentation on the Marketing analysis.

We have started working on the android application, the API, and the database.
We have finally decided for a logotype and a flyer.
We made the content for the sustainability chapter.
We checked eachothers work from last week.
We made a concept for ventilation and filter.

6th Week Report

We worked on the report.
We did the modus operandi.
We added the water level sensor.
We did the design of the app.

7th Week Report

We did the list of materials.
We added explanations on why we chose every sensor.
We started thinking the first ideas for the packaging solution.
We started going to the lab.

8th Week Report

We delivered the report.
We added the use cases and the mockups for the app.
We added the glossary.

9th Week Report

We started working on the paper.
We kept working on the report, android application and API.
We did a little redesign on the product.

10th Week Report

We started growing mushrooms.
We made the poster.
We worked on the packaging solution.

11th Week Report

We worked on the application.
We did a large part on the building of the prototype. We worked on the wiki and the paper.
We started growing more mushrooms.

12th Week Report

We finilized the paper and handed it in.
We started on the presentation and the video.
We started working on the manual.
We improved the poster, the application and the prototype.

13th Week Report

We improved the paper, report, manual, app and prototype.

Meetings

1st Meeting (2024-02-22)

Agenda:

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

Minute:

After looking into the proposed projects we shared our thoughts on it. So we all agreed on three projects we wanted to do and we sent an email notifying it.

2nd Meeting (2024-02-29)

Agenda:

- Project Presentation
  - Topic presentation
  - Problem
  - Target audience
  - First solution
  - Conclusion
- Ask about the 1st week or 2nd week thing
- Talking a little bit about our ideas

Minute:

Feedback: - Target audience: family size should be defined.
- Target audience: region/countries should be defined.
- Which waste do we want to composte in the composter? Only vegetables and fruits or also other waste? → define organic waste
- Use efficient and cheep electricity, like night electricity or solar panels (if the user has them)
- Service for the fertilizer: sell it locally when you don't want to use it in your own garden.
- Consider smell
- Design process:
1. Research → state-of-the-art driven
2. Sustainability driven
3. Ethics driven
4. Market driven (acadamic)

3rd Meeting (2024-03-07)

Agenda:

1. Presentation of our idea
2. Blackbox
3. We want to use night electricity (only use the composter at night, or charge it at night)
4. Smell needs to be as less as possible (options: baking soda, cat pellets, air freshner, carbon filter)
5. Target audience
6. How can we be innovative? What is innovative enough?
7. Show/Discuss Jira

Minute:

- Black box should not be step by step, more functions.
- Charge at night is a better option than only use the composter at night
- Materials: plastic, stainless steel, transparent (learning for kids)
- Smell: is it really smelling if it is only fruits and vegatebles?
- Be as innovative as possible
- What is the problem of an inside composter at the moment? (big, mess, time?)
- Water: disposal / tank (moisture). Something like a slowjuicer?
- Units of the composer: for how many people is 1 composer? Can multiple composers be linked to one another?
- Composer for all fruits and vegetables? Or only one specific fruit? Or only coffee?
- Kitchen composer for the whole flat?
- Start on state of art analyses!
- Start on market analyses!
- Which organisms are needed in the composter?

4th Meeting (2024-03-12)

Agenda:

1. Presentation of our idea (target audience is now restaurants)
2. What should be in market analyses? (now in state of art)

Minute:

- In restaurant space is premium, kitchens are small, space is preferred for people to sit
- Smell is bad
- Kitchen is often hot
- Business around this process: for example people can go to restaurant to collect coffee waste and the device can be placed somewhere else
- Cofee capsules → do we need a system to remove the capsules?
- Justify changes in project (state of art)
- Place outside with solar panel?
- Market analyses: ask marketing teacher
- State of art: analyse different products on the market. Market analyses: you have chosen a product and analyse the market.

5th Meeting (2024-03-21)

Agenda:

1. More explanation on why we changed the topic (detailed explanation 1.4 wiki)
    - Focus on 1 type of organic waste
    - Kitchen composter careful on whats added, becoming complex
    - Many regions organic waste collections, redundant for individual composting efforts
    - Coffee waste with dual purposes: composting and mushroom cultivation
    - Gourmet mushrooms
2. Market analysis
    - Bigger kitchens/households
    - Hotels, hostels, hospitality industry, …
    - Outside of the cities
3. Technical analysis
    - View of the electrical schematics
    - Implement the machine inside and not outside
        - Unnecessary loss and control of energy
        - Extra implementations are too expensive for the market audience and purpose
    - What components we need to buy or can use for building the prototype
4. Cardboard design
5. Difference between blackbox and flowchart

Minute:

More explanation on why we changed the topic:

Focus on 1 Type of Organic Waste: Explain why focusing on coffee waste, in particular, is advantageous compared to other organic wastes. Include specific reasons such as its availability and potential for dual use.

Challenges with Kitchen Composters: Discuss specific challenges you encountered with kitchen composters, such as managing diverse types of waste and ensuring proper composting.

Advantages of Focusing on Coffee Waste: Provide concrete examples of the benefits, such as the potential for producing gourmet mushrooms, which adds value.

Improving the state of the art: need to add table of content, there is none.

Market Analysis:

Target Audience: Specify why larger kitchens and the hospitality industry are suitable targets. Provide data or examples to support your claims.

Market Potential: Offer more detailed insights into market trends and demand for gourmet mushrooms. This could include market size, growth projections, and consumer interest in sustainable practices.

Technical Analysis:

Electrical Schematics: Include a brief overview of the key components of the electrical schematics.

Cost Implications: Provide a more detailed cost analysis.

Prototype Development: List specific components you need.

6th Meeting (2024-04-04)

Agenda:

1. Interim Report 3rd chapter almost done
2. communication system 7.5.3
3. flyer/logo 4.4.5
4. canva business 4.4.1
5. ventilation 7.3.1
6. odor filter case 7.3.2
7. add of new electrical component 7.4.2
8. new flowchart
9. improving of the explenation of electrical component
10. chapter 5 done
11. add of 7.1,7.2,7.3
12. Cloud Communication architecture
13. new 3d prototype

Do you have mushroom spawns for us?

Minute:

- Figures and tables should be numbered and mentioned in the text.
- In the logo the coffee bean is hard to see, we should give it a different form. Definitely different colors.
- Flyer is good, change isep logo.
- Use better sensors (smd, break out board → indicates good sensors).

- Better readable canvas business model (it has to be readable in pdf format).
- Flow chart: devices need to turn off. It needs to start at the beginning and everything goes to the end or in a circle. Wait 1 day is wrong.
- 5.6 conclusion is missing.
- sht3.0 bottom row?? Sensor.
- gas sensor: measures voc's in equivalent of co2.
- what can we measure for air quality in our budget.
- Next week we will have feedback on the mushroom seed.
- Mqtt broker needs to be separate from the api in the scheme.

7th Meeting (2024-04-18)

Agenda:

- Finish the 3d Model + video
- Implement water level sensor
- App design
- We are improving the interim report
- Delirevable part
- 7.6.3 Change on the architecture: create the github repository for Coffeemush and wrote the initial code.

Minute:

- How do you control the humidity? Do they need to be sprayed everyday? Where in the 3d model? If humidity needs to be different in different stages you need to have multiple sensors and water sprays.
- How do you train the AI system? → explain in the report
- Don't the mushrooms grow out of the box? Will you cut them when you take the box out? Think about in which ways the mushrooms can grow; only to the top or also to the sides? Boxes places directly next to each other cannot grow to the sides.
- Amount of mycelium in every box has influence on the amount of mushrooms, think about those amounts.
- Water level sensor: like in the toilet, not a humidity sensor.
- MQTT broker cannot connect/communicate via HTTP. This needs to be improved (probably also MQTT or translate to HTTP).
- Specify user stories / cases in android application. After the specifications / functionalities, like the powerpoint.

8th Meeting (2024-04-24)

Agenda:

- Professionalize the project

- Growing mycelium
- Bigger door 3d design
- Water float switch sensor
- Packaging solution
- Component list

Minute:

- Change links so that the “?” does not appear anymore.
- Replace the SHT30 sensor with another one because it cannot be connected.
- Explore more solutions for the packaging and decide which is best.
- Check the things that we want to buy in leroy merlin. Check if we can really buy it from there.

9th Meeting (2024-05-02)

Agenda:

- Report
- Leaflet
- Mockups
- User cases
- Packaging solution
- Components List
- Do we need to complete the personal motivations stuff? Also the pictures?

Minute:

- State of art table: smartness column: state functionalities instead of -, 0, +.
- Work on the paper.
- Leaflet:
  - Think about the space that is not used on the leaflet; think of something to place there
  - Colour of the 3d model should match with the colour palet of the leaflet
  - Typo in point 3 (we = when)
  - Put the three steps in one slide of the paper, not in two
  - Top right is more expensive and first attention goes there, so think about what you want to place there
  - Maybe capital letter of C and M
- Superscript is done by ^{3}. Other way around it is $_{2}$.
- Don’t use the same caption for the different figures (leaflet).
- Leaflet on deliverables.
- All images should be with no background, it is easier to put it in the paper and it is more consistent. Add them as png.
- Use case: like table 2 in 4.2 in the paper in overleaf.
- Materials packaging: natural water resistant materials like cork, wood, natural fibres (hemp), materials made from mycelium (leather, foam, ‘Ecovative’).
- Update schematic with the component list.
- Power budget: our voltage regulator is analogue… we need to check if the voltage convertor

can handle the power.
- CO2 needs to be written correctly in the report.
- In paragraph 1.1 Presentation we could put more information on who we are (maybe group picture).
- In 1.2 write down why we were motivated to do EPS.

10th Meeting (2024-05-16)

Agenda:

- Paper
- 3D Model
- Leaflet
- Packaging solution
- Updated electro schematics

Minute:

- Filter: metal net combined with the blanket the teacher provided us
- The fan is specified for normal conditions, not with a filter. Be careful with that. An opening should be made between the filter and the fan, they should not be connected directly.
- White material = expanded pvc, is waterproof, can be glued (is preferred to little screws)
- Think about the corners, how to connect them. There are some metal corners that can be glued instead of screwed.
- Write on the team channel what we still need from the materials (asap) with exact dimensions.
- Sensors cannot be glued, only tape (double face tape)
- Use less lists in Overleaf, it takes a lot of space. You can also do (i)…; (ii)…; and (iii)… .
- Leaflet:

    - 'CoffeeMush is for you' with picture should be above 'if you are …'
    - 'Coffeemush is for you!' should be at the same hight as 'easy to use'
    - CoffeeMush should be darkbrown in the leaflet, like the logo.
    - Be more consistent, for example with headings and normal text (corner right down should be heading or not?)

- Rail should be called conveyor
- Write about how to water the mushrooms in the report
- Color of the package? And say something about the size for the last picture.

11th Meeting (2024-05-23)

Agenda:

- Still needed materials for the prototype
    - 2 x Reduction union FEMEA 3/4 1/2 AQUAFLOW
    - 2 x GEOLIA tap connection 3/4MACHO
    - 1 x PEX tube roll 20X2MM 5M

    - 1 x 2 TORRO pipe clamps 16-27/9 W
    - Acrylic glass 70cm*30cm
    - Double sided tape
- Progress of the mushroom grow
- Progress of the prototype
- Poster
- Functional tests

Minute:

- Lab: Take all the pictures from the mushrooms growing in the same angle.
- Lab: Add new boxes with the lids covered to avoid contamination
- Poster: A device to grow. Remove the period at the end. The both the same shape. Love instead of like (coffee lovers). Commited to environment. Remove ´coffeemush is for people who´. [coffe drinkers, mushroom lovers, environmental friendly]. Add mushrooms in the pictures. Change the colors. 2 pictures: the first one and the last one. The last one with the box full of mushrooms + notification of when the mushrooms are ready.
- Sustainabilitry scale (links in paper are removed).
- Add on/off swich.
- Drawings of the pieces

12th Meeting (2024-05-29)

Agenda:

- advancing the prototype
- stress analysis
- improve wiki
- testing the broker
- adding switch and led into the electric schematics
- introduction paper chapter 2;3;4;5, ethic part and sustainability
- marketing improving
- leakage problem solenoid valve, possible to add silicon or something else?
- ESP32-C3 Core communication
    - Can upload to the microcontroller, cannot receive data back in the terminal

Minute:

- Paper should be handed in Sunday
- Results are most important in paper
- Leaking connection in valve: add tape or rubber or teflon
- Pictures stress analyses have to be in the deliverables
- Paper
    - Marketing: logo, name of the project, position in the market. It should be shorter.
    - Ethics: shorter
    - Structure smart control and web/mobile: prototype development: what has changed in the project and what developed. Tests: results. Design: what we wanted to do in the beginning.

    - Acknowledgments: nothing
    - 3d should be 3D
    - What was your experience on eps = personal outcomes (everyone should do a couple of lines)
    - Add all references
    - Design: read red lines, add pictures, HEPA should be explained before abbreviated
    - Logo, name and slogan should be 1 sentence and not in bold

13th Meeting (2024-06-06)

Agenda:

- Advancing the prototype
- Finish paper
- Improved the poster
- Manual user and app
- Home → 'clients' → what should be here?
- 7.4.2 schematic drawing

Minute:

- Photo’s prototype on wiki
- Paper:
    - bibliography is not correct (for a book it’s not like a website)
    - ‘Chapter’ should be ‘Section’
    - Structure of the document should not be in the abstract
    - Abstract should be a sentence about the problem, then that the team from eps tried to find a solution for this. After the proposed solution. Finally conclusion.
    - Introduction: sections should have dynamic links
    - 3.2: Figure with 4 pictures: device should be transparent. Add third and fourth phone with camera, boxes. References are still from example.
    - Fix the warnings
- Poster: Change colour of the text in the bottom and make it bigger, to make it readable. The text is too thin and/or the white border in the text should be deleted. So make the text solid white or solid black. The device should drag more attention and be more clear. The blue of the mobile phone screen does not match the poster. Separate the 3 steps in different blocks.
- In client: isep
- Drawings: feedback from Joao will come, first opinion:
    - Size of the font is too small for A0
    - Drawing nr
    - Arrows are too small, you cannot see it
    - Pmg instead of jpg please
    - Bill of materials
- Manual:
    - First senctence app manual does not make sence. It is not part of the manual: delete.

14th Meeting (2024-06-13)

Agenda:

- Improvement of the prototype
- Improvement of the poster
- Improvement of the manual
- Presentation next week

Logbook:

- Improve tables in paper
- Improve red feedback in paper
- Add additional screens of the phone in the paper
- Message on teams when paper is refined, please this weekend
- Presentation:
  - 12 minutes with video included
  - Amount of slides for amount of minutes
  - Discuss problem, solution, prototype, requirements, problem, conclusion

Activities

Please register here all accomplished project activities

Start	End	Task	Description	Who