Logbook

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

Weekly Report

1st Week Report

First Meeting – Team 2 – Business Lunch

Team Presentation until 11.03.2015

1. Project description

Maximum budget: 150 €

2. GANTT CHART

3. TASKS

DESIGN

- Brainstorming
- alternatives
- form study
- technology study
- prototype
- graphic design
- 3d simulation

RESEARCH

- What kind of characteristics do we have to fulfill? (Humidity, Temperature
- Choose suitable/cheap materials?
- Is there any technologies being used already?
- Do we need Elictricity? Programming?
- Easy to build up and down again?

BUSINESS

- Market research
- positioning

NEXT STEPS

1. Everybody collects Data (for their field) and thinks of upcoming Tasks and possible Deadlines
2. We need to find a good coomunication platform (dropbox, google docs) Any suggestion for a good program where you can mark/unmark tasks. So everybody can see what has been done.
3. NEXT MEETING on THURSDAY 05.03.2015 after the Meeting

2nd Week Report

Date: 5.03.2015

Meeting with supervisors, during which we were given first clues about the project.

- Requirements - functional test
- Use cases
- High level block architecture
- Card board scale model

Source of energy - research

Proper conditions for plants growing in aquaponics:

- Research
- Making an appointment with company producing aquaponics
- Choosing proper plants

First design:

- shelter:
  - size (width, height, length)
  - sketch
  - designing software?
  - shape
- materials needed - research
- product research (looooooooooong work)

Gantt chart

Questions will arise during the research process and after meeting with experts.

Next meeting 9.03.2015

3rd Week Report

Date 9.03.2015

Gantt chart, team building presentation and task allocations have been done.

Team Meeting - 12.03.2015

- Collected the first list of requirements / use cases
- Task allocation for the extended weekend
- Adriana: shape studies
- Pawel: Heating/cooling, law regulation
- Reelika: Diagram of construction materials
- Severin: State of the art Research, SWOT-Analysis
- Mateusz: Research for electronic materials, diagram

- Roland: Research for electronic materials, diagram

4th Week Report

Team Meeting - 17.03.2015

- Presentation of the Research done over the weekend
- Discussion about heating technologies
- Definition of the 1st/2nd choice in materials
- First designs
- Introduction in the marketing plan
- Discussion about electrical devices (costs)

Team Meeting - 18.04.2015

- Allocation of Wiki-chapters

Visiting the organic farm - 19.03.2015

We have visited a local organic farm (https://www.facebook.com/sustenta), did research and also got some feedback from the specialists.

Conclusions:

- during the winter, the temperature of the water is 5-8 ºC
- the aquaponic system needs at least 15 ºC to work properly
- we need to heat the shelter only during the winter(the best solution is to use thermal mass)
- we need to find a solution to decrease the power of the sunlight
- we should consider putting the window at the top of our construction(hot air flows to the top)
- price of the PC is much cheaper than we expected(11 €/m^2 instead of 44 €/m^2)

Photos from our visit:

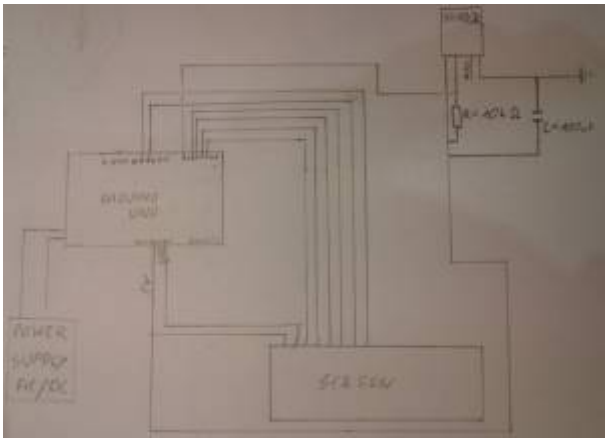




5th Week Report

List of materials

- Construction materials list material_list_with_prices.xlsx
- construction materials - calculations materials_model_design_copia_en_conflicto_de_adriana_jurado_2015-03-30_.xlsx
- electronic materials list electronic_materials_v2.xlsx
- electronic schematic



Meetings

1st Meeting (2015-02-26)

Agenda:

1. Presentation
2. Modus operandi
3. Project proposals
4. Electronic Logbook

Minute:

All 16 projects were introduced and explained. We had to choose which one we want and send an email.

2nd Meeting (2015-03-05)

Agenda:

1. Description of what we have already done
2. Advices from supervisors
    - wiki

Minute:

The meeting was conducted by Reelika. We introduced to the supervisors for what every team member is going to be responsible. Also got some feedback about the wiki and how we should use it.

3rd Meeting (2015-03-12)

Conductor of the meeting: Severin

Agenda

1. Talking about what we have done:
    - Leaflet design
    - Gantt chart
    - WBS
    - Materials
2. Questions:
    - dimensions / blueprints of existing aquaponics
    - If our shelter needs to be smart?
    - Do we need to buy all needed equipment?
    - Is there any website for construction materials?

Minute:

The meeting was conducted by Severin. We got some feedback about the wiki and product design (selecting the materials).

4th Meeting (2015-03-19)

Conductor of the meeting: Paweł

Agenda

1. Talking about what we have done:
    - We decided about the shape of shelter
    - We gave up heating and cooling
    - List of materials (mostly)
    - Tasks allocation in work breakdown structure (WBS)
    - task allocation of wiki chapters
2. Questions:
    - What are those topics in State on the Art (Wiki)?
    - If we can got any support with electronic devices from the University (finding better prices, renting the Arduino, etc.)
    - If there is a possibility to get bigger budget?

Minute:

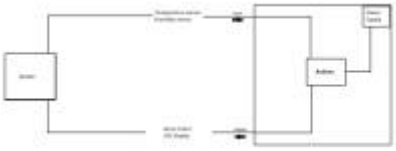
The meeting was conducted by Pawel. We got some feedback about selecting the materials, the supervisors answered our questions and also gave us useful advices.

5th Meeting (2015-03-26)

Conductor of the meeting: Mateusz

Agenda

Talking about what we have done:

- Blackbox diagram 
- Electronic components electronic_materials.xlsx
- Construction materials construction_materials.xlsx brico_depot_prices.xlsx
- Design 

Questions:

- Is the design proper? / Does it meet the requirements of the client?
- Are the electronic and construction materials proper?
- How the midterm presentation should look like?
- What is the deadline for delivering materials list? (hour)

Minute: During the meeting we were given support according to electronic materials and suggestion that we should think about it more. Our client likes our design and idea how it all will work.

6th Meeting (2015-04-16)

Conductor of the meeting: Roland

Agenda

Talking about what we have done:

- changes in the report after midterm evaluation
- changes in the materials list - comparisons
- better electronic schematic

Questions:

- When we will get materials to work with? (ASAP)

- How the bibliography should look like? (as in this example;references are added in BibTeX format in the refnotes.bib)
- Will we get an access to soldering iron? (to connect wires)
- The list of materials should be for electronic materials and construction materials or only electronic materials?

Minute: We were advised to revise the wiki webpage and to make the list of materials as fast as possible.

7th Meeting (2015-04-23)

Conductor of the meeting: Adriana

Agenda

Talking about what we have done:

- Finish material list
- Changed the electronic map
- Designing the different windows, and adding a new window in the design.
- Starting with the blueprints
- Design the brand logo: 

Questions:

- We are going to have a lux meter?
- The electronic scheme is okay?
- About the connections, using screws is okay?
- We have to use any box template in the blueprint?

Minute: We presented the logo of our product, the supervisors gave us feedback about the electronic schematic.

8th Meeting (2015-04-30)

Conductor of the meeting: Pawel

Agenda:

- Using panels instead of struts
- We built the mock up 1:2
- We started the paper
- Material list: material_list.docx

Questions:

- We are working with small pieces of wood and have to cut it with different angles. In order to put the pieces together in the end it has to be quite accurate. Therefore we are interested in what kind of saws/machines you have in your workshop to work on wood? circular bench saw? Chopsaw? Sliding bevel?
- Are we going to have a glue gun? What size we have to order for the glue sticks?

 (Is it in your list of materials?)

- We have to do waterproof test on the scale model?

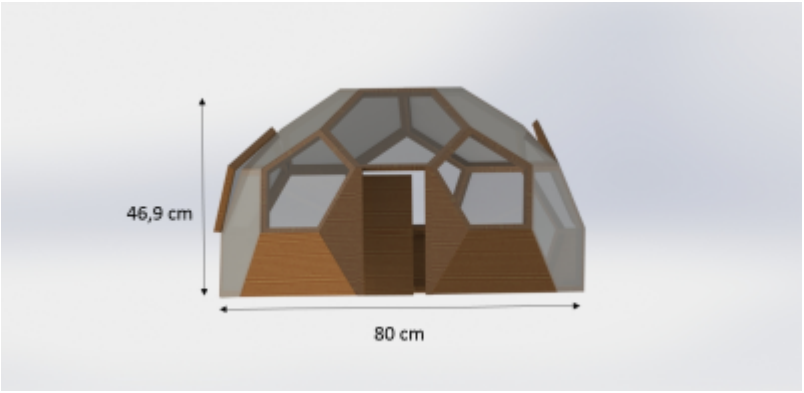
Minute: We got the feedback about the proper units at the material lists. The supervisors also gave us some comments about the wiki.

9th Meeting (2015-05-14)

Conductor: Severin

Agenda:

- We did layouts of the scale model and the simulations. layouts.rar
- Improved the wiki (Although not everything is uploaded to the wiki yet.)
- We worked on a pattern to cut the wooden board in an efficient way.wood_panel.pdf
- List of materials is changed. material_list2.docx
- As Beneditta proposed Adriana calculated the measurements for a Prototype twice the size.



Questions:

- Do we have to buy construction materials on our own? If yes, should we buy them with our money
- How to install the plugins for the wiki?
- Is the prototype with a diameter of 80 cm convenient?
- What about the plastic hinges?
- The proposed board with 2750 x 1220 x 32 would offer enough material for the model. BUT 32 mm of height is way too much. We need a height of around 5 mm.

Minute: We have discussed the material list and got the electronic components. We've got the

suggestions from supervisors about the places we can find the materials we need.

10th Meeting (2015-05-21)

Conductor: Reelika

Agenda:

- We did the comparison of the prices of cover material (acrylic glass, PC) in the stores that you suggested
- We have updated the wiki report
- We did the new 3D model for the scale model of the shelter
- We started the paper version of the report, the abstract part is done
- We did the price comparison chart of the two scale models, the old and the new one comparative_price_chart_40-80.docx
- We have done the cutting layouts of the wood in the different scales
- Electronic materials are connected.

Questions

- The price of the electronic materials you have sent us is 58.92 €, but during the meeting you said it will be around 48.00 €. Which price is the correct one? (58.92 €)
- Do you have any good websites with libraries for Arduino?

Minute: We decided that we are going to use PMMA instead of PC. Also finished with the material list.

11th Meeting (2015-05-28)

Conductor: Adriana

Agenda:

Questions

- How should the final presentation look like? What are the requirements?

Answer: 15 minutes including the video

- Is it possible to finish the prototype after the final presentation?

Answer: You can work on details

- Do we have to print the poster and other deliverables?

Answer: Poster and final report must be printed after all corrections have been inserted

- The programme for further development should be uploaded to the Arduino or on the Arduino there should be programme that is needed now? (Further development with servo motors that open windows. Current programme, is only measuring temperature, humidity and telling to close the windows manually if the temperature is too low)

Answer: The Arduino programme should interact correctly with all components provided.

- We would like to test our temperature and humidity sensor whether it works properly or not. Can you provide us with controlled humidity and temperature sensor?

Answer: Define your experiment setup and do the tests.

12th Meeting (2015-06-04)

Agenda:

* Arduino program: shelter_arduino.pdf

* Real model 3D Simulation:

Questions

* How should the Manual look like? What are the requirements?

Minute: We showed our final design. Learned how to write a user manual. We also got all the materials except plastic foil for windows, and hinges which we have to go and buy on our own.

13th Meeting (2015-06-11)

Conductor: Mateusz

Agenda:

- We started building but we have problem. We are out of double sided tape, we need 2 more packages.
- The report, paper and poster are almost finished. Still working on manual, presentation and video.
- The temperature and humidity sensor is broken. Probably because of changed polarity. We

have already contacted Paul to test it and figure out how we can solve this problem.
- Changes in the program are done but we need sensor to test it if it works. (The previous program was working properly)
- We need to make some changes in report and paper after the deadline (12.06) because we are not able to do the functional tests before the shelter is finished.

Questions:

- We have to buy the sided tape to have it as soon as possible?
- If the sensor is broken where can we buy another one in Porto? (to do it as fast as possible)
- Is it good idea that the program will ask user to enter the temperature limits when the system starts or is it better to set the limits for most common values and let the user change it while the system is working?
- The real deadline for uploading deliverables is 12.06 or can be 14.06 at night as it is a weekend ?

Activities

Please register here all project activities

Start	End	Task	Description	Who