
Weekly Journal

— Peaceful Penguins - MLC 2016 —

28 January 2016 - General notes

Discuss and determine the problem we want to solve.

Prepare for field work. Discuss timeline.

Domestic use of water:

Human consumption - detecting water contamination in an individual home (Home sensor device, water bottle? screw on tap?) - research Detroit, Michigan!

isolated water recycling/circulatory system - use the same water to shower for like a year!

28 January 2016 - Individual Journal

Adrik

Today we narrowed down our options for problems to solve to two possible issues: one, detecting the toxins that get into home water sources, and two, reducing the output of greywater with isolated water recycling systems for the household.

I have some nice design ideas I'm ready to share when we begin to develop these solutions further. I'm excited to begin work on problem solving for these designs.

Mellonie

I think today went fine because I knew what I was doing and I had lots of curiosity on what we were discussing about. This reflects back on me on the Kenya Science and Engineering Fair and we were doing the scientific research and i do enjoy.

I think I can come up with ideas on the device and we can share them as a group. I like the participation and and group involvement.

28 January 2016 - Individual Journal

Wysteria

I like hearing everyone's idea and views on each idea of our two prototypes. I think we have to agree with one idea on a whole as a group. More fluid discussion needs to happen and maybe letting only the students have a discussion group one day and then reflect with the help of the mentors. I would like to go further with the idea of the circulatory water system because I feel that the home sensor device is too of a specific existing problem.

Morgan

I think we still need to do more work trying to get more specific with the problem and the specific solution to that problem. I think we are creating a space where we can have a more open dialogue but we need to start thinking and discussing more specifically and critically. I personally am more interested in the Isolated circulatory system cause it seems like a more long term solution but also seems complicated in the proposal stage and prototype stage if we choose to go that direction.

28 January 2016 - Individual Journal

Zander

Not Present

Dwynn

I took general notes today.

I want to do either of the problems we discussed. For the isolate water circulatory system I want to make something for one single appliance, such as a shower, that would allow you to reuse the same water for an extended period of time (6 months, a year, etc.)

For the sensor I want to make one that will screw onto a kitchen faucet and alert you if the water flowing through it is contaminated.

04 February 2016- Individual Journal

Adrik

This session was interesting, only half of the group was present and we had to start making decisions, so we chose to focus our contaminant sensor idea. I've started some research on the concept and there are some promising technologies that we could utilize. Overall I'm happy with the choice to focus on the sensor, this is something I am excited to research and explore further.

Mellonie

This week was simple hard for me because there was no communication between us, the students. I think communicating to each other is much better rather than assuming that something will work out. Helping each other in research will make work easier.

General view of my thoughts, I think that the day was good even though we were only three students. I also feel that this is the time where we can generalize what we want to focus on and make it rigorous

04 February 2016- Individual Journal

Wysteria

Not Present

Morgan

Not Present

04 February 2016- Individual Journal

Zander

I started making a prototype non electrical pump and I didn't finish it yet. It is connected to the water containment filtration unit that was sketch out by other team members. I am planning to make this prototype out of paper. If possible, the team would like to 3D print a more complete model.

11 February 2016- Individual Journal

Adrik

During this session we explored the questions we received in response to our fieldwork strategy document. We delved into the possibility of an isolated water system by defining what some of the specific components would be. We now have a rough model of the system (that is missing some key features), that will incorporate the shower, dishwasher, and washing machine. This will help reduce most of the greywater output of the common household.

Mellonie

Today went fine and we came up with better ideas. I liked the corporation that we had in the group and I can see how we've made a good progress.

During the session, we were able have a rough sketch of how the storage system should look like. I think that teamwork has led to a great impact on our progress.

February 11 2016 - Individual Journal

Morgan

I was not able to stay for the whole meeting and so I wasn't able to make a lot of progress with the group but I see how we are getting closer to the proposal and I think that will be the next big thing for us to work on.

Wysteria

I was not able to attend the whole meeting, only part time. I was able to do a bit of research details about our model proposal and add on thoughts. I now caught up with our discussion and work we have to do. I know we are making a lot of progress each time we meet and are coming close to our proposal.

February 18, 2016

Zander Hoffman

There are better filters that can be powered by solar power. A small tool that attaches to the hose, that filters the dirty water. In the filter it passes through redox crystals and granular activated carbon (aka GAC).

Feb 18 2016 Individual Journal

Adrik

Mellonie

Actually the meeting went well and we were working on the proposal on our project. We did so many research and we discussed on various things and I like the fact that I feel engaged in this project.

We also got to have talk about the best way of sharing duties for everyone. And how other people would do in the group.

February 18 - Individual Journal

Morgan

This Thursday I felt like I got a lot more done than I have in the past because we started to make a lot of process on the proposal and are working out more of the details and in the past we have more focused on the idea and what we wanted to do.

Wysteria

This team meeting I got everything I needed to do done as well as getting caught up on our discussions and thoughts. I worked on the proposal specifically the human factors and I learned a lot about our model and the actual human factors that will be benefiting.

February 25th 2016

Adrik

Mellonie

This day we finished the proposal. Everyone was busy working on the assigned area the previous week. We then kept doing some research and seeking help from our mentors.

We also discussed on what would work best concerning our project and how we would help each other. We had a quite good time this day.

February 25 Individual Journals

Morgan

In this session I worked on researching what kinds of materials we would need to make the water tank (theoretically) but there are so many kinds of things to use and many different parts that we need to get parts for, so I'll need to do more research. I also came up with the idea that our water system can also work as a water source in case of a disaster and added it to the problem and solution in the proposal.

Wysteria

Today we finished the proposal and cleared out any lingering questions, each day we are making progress to concluding our project. I finished up on the Human resource factor and starting adding on to the problem paragraph. We have ran into some issues but quickly resolved it by doing more in depth research. I hope next meeting we start working on a different project, hopefully.

March 3, 2016

Zander Hoffman

Today only I and Harsh showed for PSU challenge it was kinda strange with no one else arriving I did feel a bit nervous for a little. As time passed harsh left and I was all alone at the PSU challenge for the rest of the time.

March 3rd 2016

Adrik

Mellonie

Absent.

March 3rd - Individual Journal

Morgan

Absent

Wysteria

Absent

March 10th 2016

Adrik

Mellonie

We started to work on the posters. It was actually a good idea simply because we did not have any mentors around as apart from Regina. It ended up to be fun listening to everyone's opinion.

We also planned ahead of time on what things we were going to accomplish before the spring break. We talked about writing journals too.

March 10 - Individual Journal

Morgan

Today we started to work on the poster that we will use to present our final project proposal, show our works, research, and our final design. I helped by working on the Key Observations part and researched more info about the pros and cons of the tank materials, specifically plastic water tanks. I came to the conclusion that plastic, even though it's the cheapest option proves to be more toxic and less reliable for long term use. I also researched cement water tanks but need to research more about metal water tanks.

Wysteria

In this meeting we are starting to discuss and prepare our poster template rough draft. We are all going through the major points and factors we want to present through our poster and how everyone will contribute. We are also finalizing our assignments and realizing the due dates, we are planning out in advance when and how we are going to get everything done on time.

March 17 - Individual Journals

Adrik

Today, Mellonie and I continued to work on the poster. I worked on finishing up the diagrams; getting them drawn, labelled, and on to the poster. We are nearing the end of our work, but we're definitely pressed for time at this point. I plan to type out the conclusion before the next meeting, and I'll make sure that all the details for the diagrams are there.

Mellonie

Adrik and I helped each other with the poster and that there were some challenges to be only two people in the group. We just stood and kept doing everything together.

We actually discussed how we would like to present our poster on 9th of April and I decided to present the problem and solution.

March 17 - Individual Journals

Zander

Glass beads will be a good tool to use for filtering out the water in a city space. Also be a cleaner and more affordable than pebbles as a filter also will last longer. The company is **sigmund linder** the name is in german. We also looked at an ozone generator. It claims to be 200 times more effective than chlorine, but possibly creates pollution.

March 31st 2016

Zander

Text here

Mellonie

Today we were just finishing to work on the poster. We did lots of research and also compared our device with other system especially the filters. We have been struggling a lot in terms of showing up after school but we ended up finishing our poster early. I think we could improve on teamwork since there is a lot of dependence through the team members. We never gave up on the project despite on the challenges that we had as a group. We have planned on who is going to present on certain topics.

March 31st - Individual Journal

Morgan

Absent

Wysteria

Today I am getting caught up on the work my other teammates have done so far last week and adding onto their progression. I think are team struggles with showing up for these meetings mainly because of inconvenience but it does have a small impact to our work and how much we can do more rapidity all together. We are still able to get everything done but at a slower pace.

March 31st 2016

Adrik

Sick?