*Projet Waterproof*

Week 1

. create a system which allows you to filtrate dirty water

. searching existent “water cleaning “devices

. mark down pros & cons of each project

|  |  |  |
| --- | --- | --- |
| Project | pros | cons |
| With chemicals | Kills bacteria easily / portable | toxic |
| UV light | Great technique to kill bacteria without having to use chemicals | Need a power supply |
| Boiling system | Cheapest project | Takes a lot of time + need to build a fire |

Week 2

. Recap what we did last week + be more precise about what the project really is

. look for what already exists and what is missing

. What is the capacity of current project (≈ 0.5 L)

. How do they work

. Forgetting all projects with chemicals

. Finding the idea: a water cleaning device for emergencies like floods

Week 3

Going deeper into the technical aspect

. must be packable => size constraint

. must be light => weight constraint

. UV light system was the best one to use

. How do you power up the device? Emergency means no power

. We will have to use a dynamo

. How much water do we want our device to carry? (≈3L)

Week 4

Our first idea was a box

Cons:

. Not easy to carry

. Not an optimal design

. No packable

Une image contenant texte, tableau blanc

Description générée avec un niveau de confiance très élevé

Une image contenant texte

Description générée avec un niveau de confiance très élevé

Problems left to work on:

. optimization

. wiring

. a first filter for mud

Week 5

Instead of a box we will use a cylinder. It is easier to pack, smaller and lighter but also optimize the ratio UV light per area.

Une image contenant texte, tableau blanc

Description générée avec un niveau de confiance très élevé

Pros:

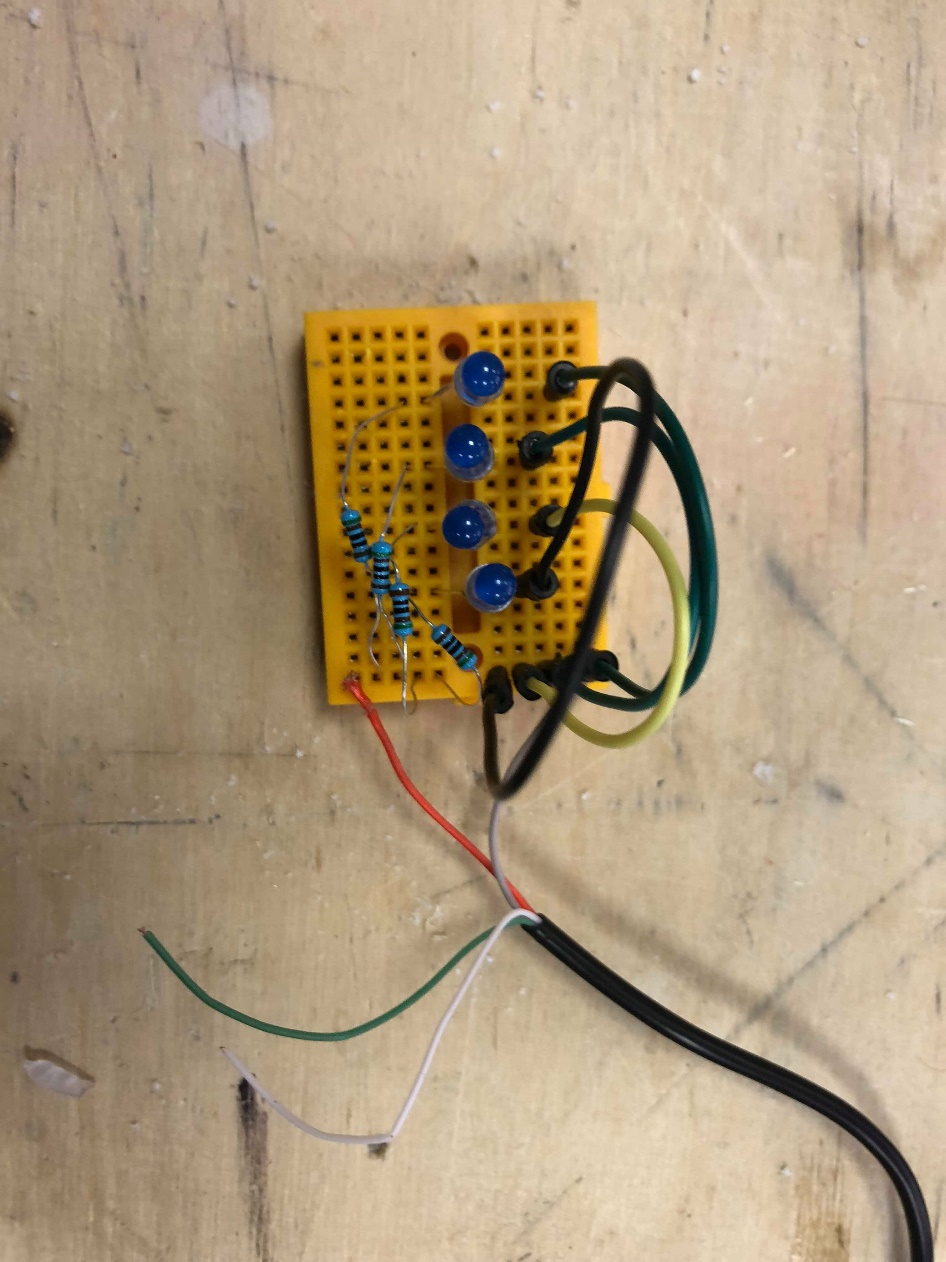
. double filtration system

. the wires will not be in contact with the water

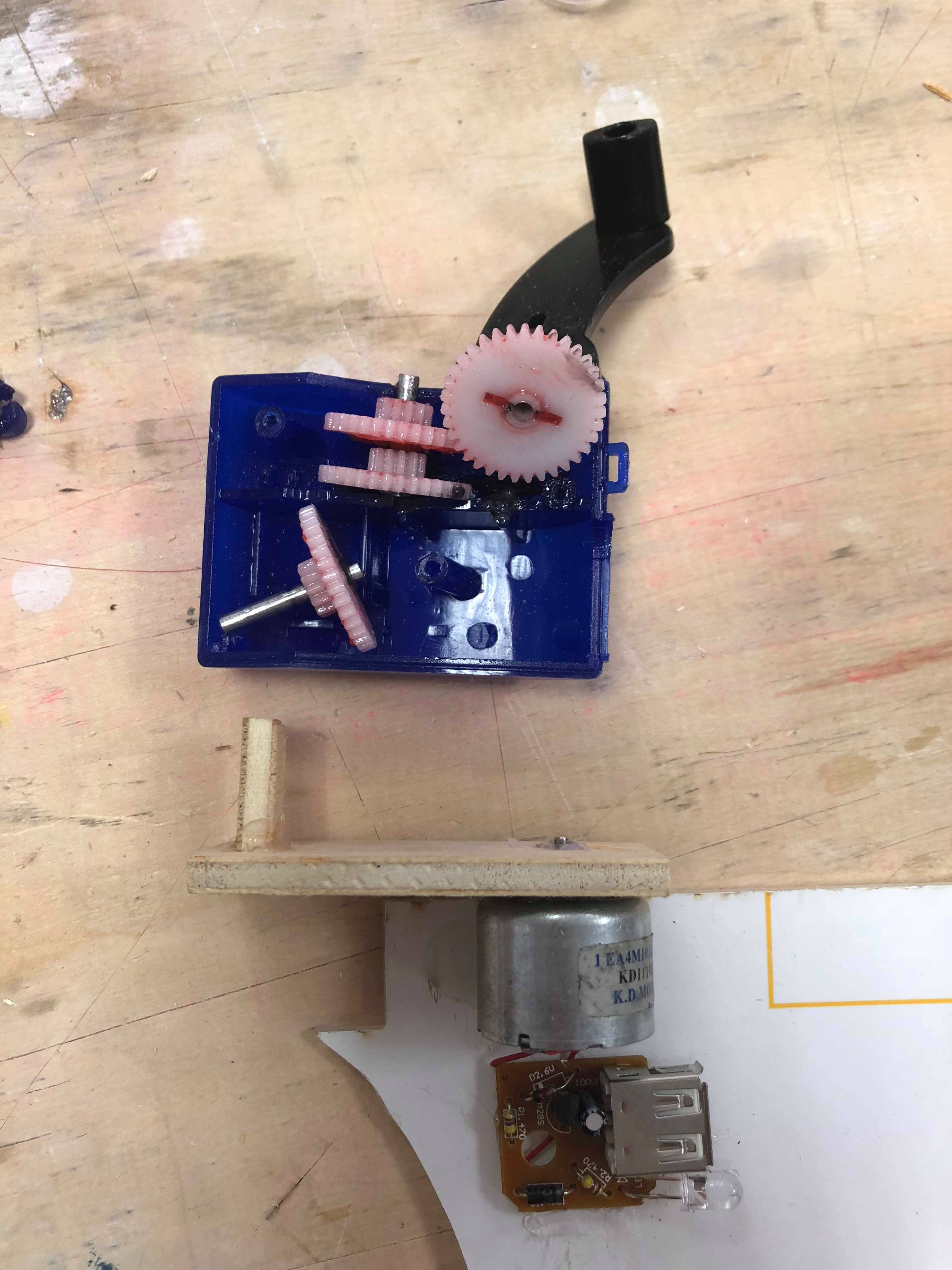
Week 6

We wanted to connect the UV light to the dynamo so when you are using the dynamo it does generate power to use the UV light. Unfortunately, there is a problem with the UV light, so we can’t use the UV light for the actual test. We will use blue LED to replace the UV light.

Here is a look on how the lighting system works.

Une image contenant jaune, équipement électronique

Description générée avec un niveau de confiance élevé

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Week 7

Finishing the last details of our project.