

Product design team 8

Minutes meeting 6, 28.10.2016

Present: Cyrill, Loic, Micha, Tamara, Louai, Dominik
Excused: -

Communication channels used for this project:

Trello : <https://trello.com/b/pVXtibGt/magnetic-inductive-headlight>

Drive : <https://drive.google.com/drive/u/0/folders/0B7IF6TarFXPeZUJkdIZTMDMwQjA>

Blog : <http://blogs.epfl.ch/productdesignteam8>

Order address for components:
Office of Isabelle Schäfer, BM
Send an email before

link: pcb-pool

Points to discuss:

1. Time planning:
 - a. Last week of preparation, PCB and components should be ready to be ordered for next week
2. Administrative:
 - a. Component shopping list: put your components here
https://docs.google.com/spreadsheets/d/1BTRhUZ2idXD4Jx0o6bYSDy_6IClOLwxZlaAE9ag9fMw/edit#gid=0
 - b. Budget: Put your orders (also possible future orders) in the budget, we need an estimation of the money spent:
<https://docs.google.com/spreadsheets/d/1ia4HwptgQsI9jIC8UbB7MljW6SiCqLqLRF62BuRJfFI>
 - c. OpenSource PCB design software : **KiCad** / Altium EPFL licenses
 - d. Preparation of the presentation on tuesday 8 november (Doodle)
3. Updates about the separate divisions
 - a. **LED part (Head : Loic)**
PCB design finished, new circuit on Trello and Google Drive
Now: check on seedstudio for delivery times and other requirements
Put the button in the shopping list!
Add 4 screw holes to the PCB
 - b. **Harvesting part (Cyrill, Dominik)**
Things done: Basic tests, magnets ordered
100 windings, 30mm magnet peak value 3V
100 windings 20mm magnet peak value 2V
tube: 3D printed, coil produced

Possibility to produce coils at mechanical labs at EPFL. ("costs: under 100 CHF")

Decision: Produce 2

coil tubes, in parallel at 20mm diameter

make an analysis of the total volume, including the supercapacitor

c. Harvesting PCB and storage (Micha)

components ordering now, we decided to order a 100F and a 20F supercapacitor

still working on PCB, should be ordered at latest in 2 weeks

I propose robust jack connectors between the back part and the front part :

<http://eu.mouser.com/ProductDetail/CUI/PJ-075DH-SMT-TR/?qs=sGAEpiMZ ZMvh4ezHM5rsUnyFoUXZ19TP2CQWvC8XIMbSwGamfx0M1w%3d%3d>

<http://eu.mouser.com/ProductDetail/CUI/PJ-028-SMT-TR/?qs=sGAEpiMZZMvh4ezHM5rsUnyFoUXZ19TPbA%2f6IHl369r1DGu2ouMxg%3d%3d>

d. Mechanical and structure (Tamara, Louai)

Design verified by the atelier

Re-design and re-verify in the atelier.

Actual mechanism for changing the angle is only possible with powder, they only do this every 2 weeks...

Worst case scenario: Make something with a screw to change the angle

Prices: 1.- per gram

4. Tasks for next week

- a. Loic: Add the button & the connector to the PCB, reduce the size
- b. Cyril: with Dominic
- c. Dominic: Ask the mechanical labo for the production of the tubes & coils budget CHF 200.-
- d. Louai: see point 3d
- e. Tamara: see point 3d
- f. Micha: Test the boost (components arrive next wednesday)