WakeyWakey Machine

Final presentation

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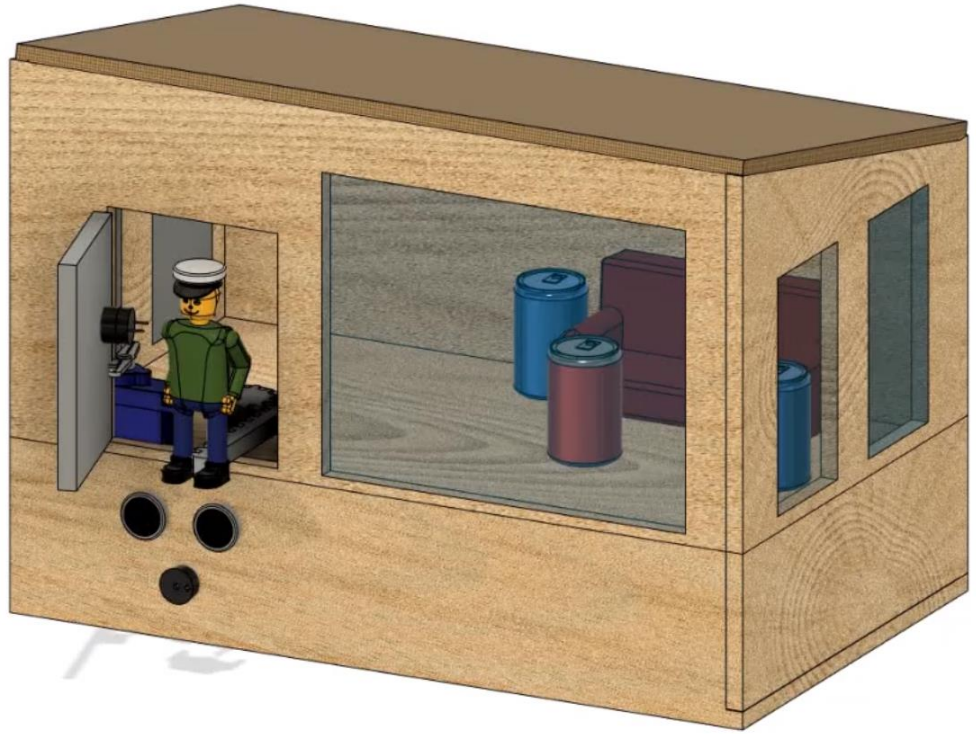
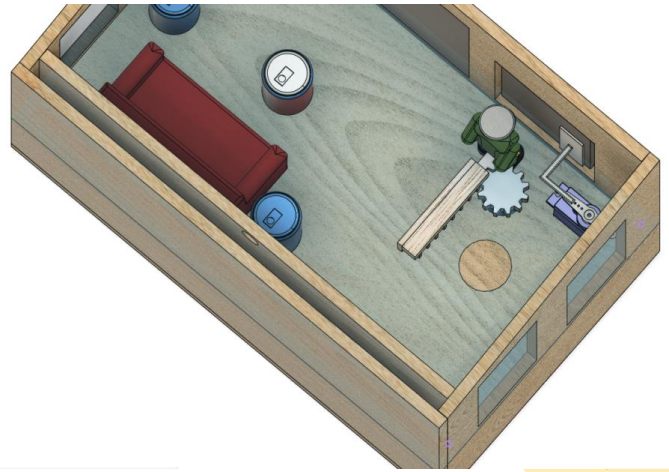
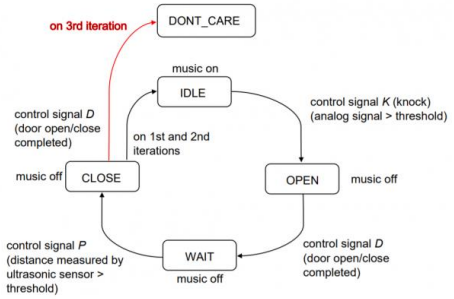


Project summary and timeline

mid-term presentation





Coming up with the idea

Planning the functionality

3D modelling & 3D prototype

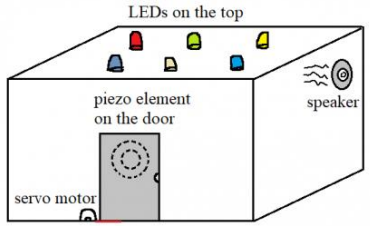
Fine-tuning (e.g. 3D prototype)

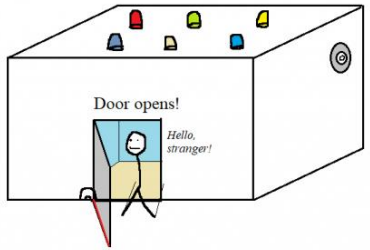
Rough sketches

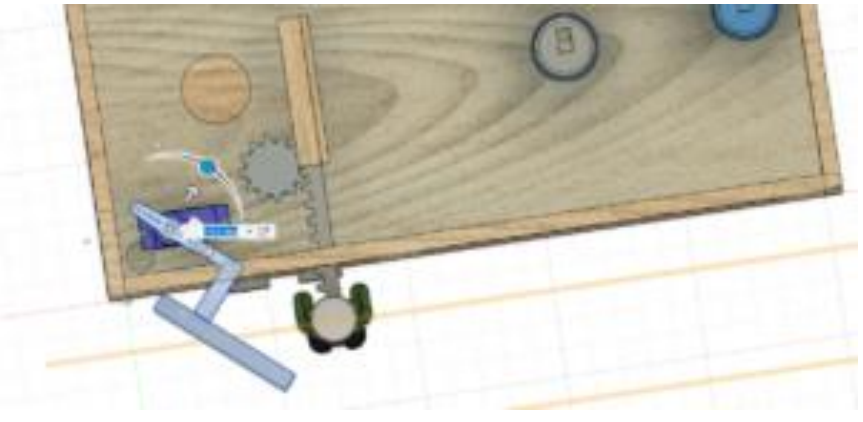
Programming & electronics

Laser cut models & cardboard prototype

Door mechanism

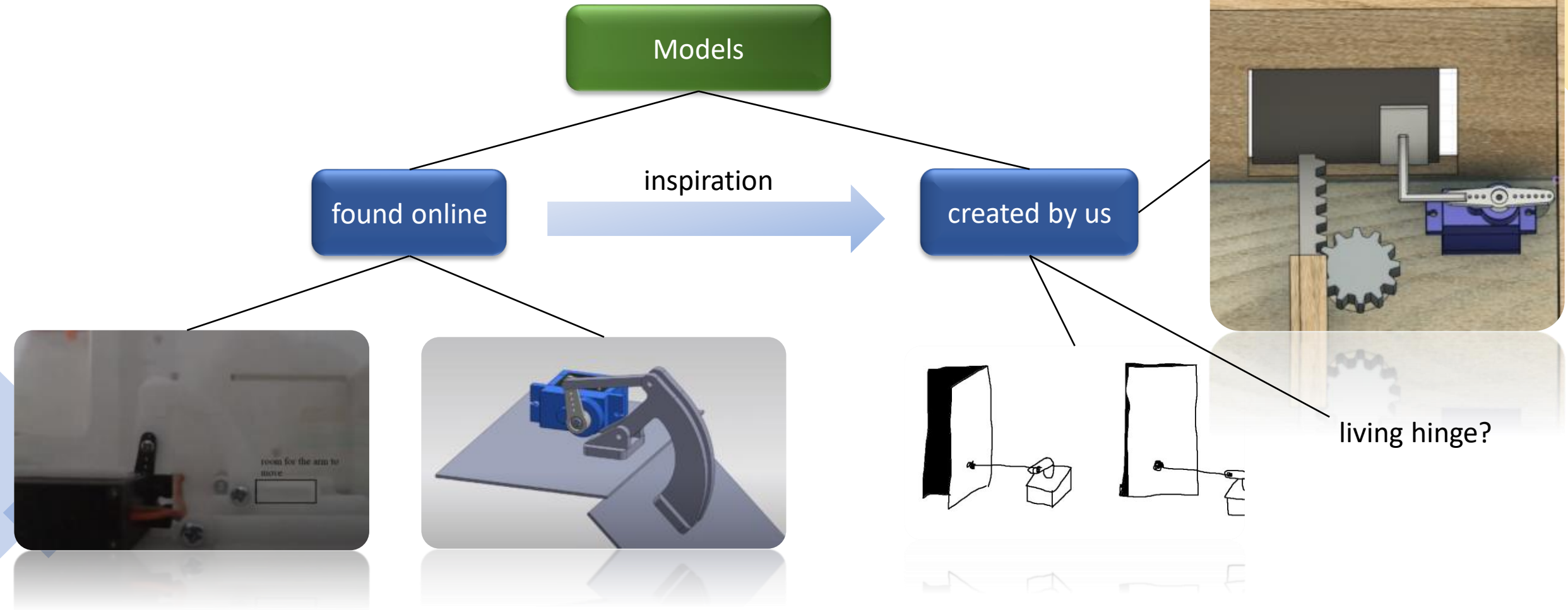






The door

- Assessing the pros and cons associated with different solutions
  ⇒ choosing and implementing the most suitable one for our needs.



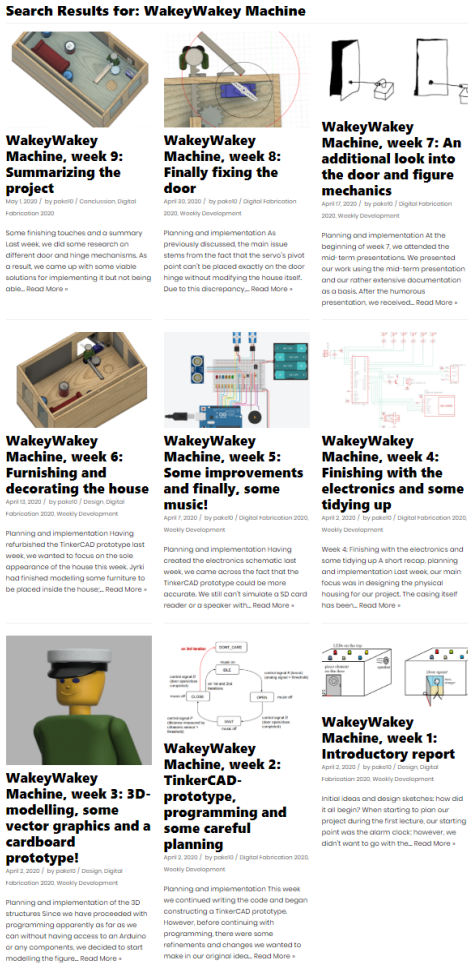
Some fine-tuning

Tidying up the repository

pake10 Delete tölkki v1.f3d

..	
f3d	Add files via upload
gcode	Delete a.lb
stl	Delete a.b

Going through the whole documentation



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WakeyWakey Machine, week 9: Summarizing the project

May 1, 2020 / by pake10 / Conclusion, Digital Fabrication 2020

Some finishing touches and a summary Last week, we did some research on different door and hinge mechanisms. As a result, we came up with some viable solutions for implementing it but not being able... Read More »

WakeyWakey Machine, week 8: Finally fixing the door

April 30, 2020 / by pake10 / Digital Fabrication 2020, Weekly Development

Planning and implementation As previously discussed, the main issue stems from the fact that the servo's pivot point can't be placed exactly on the door hinge without modifying the house itself. Due to this discrepancy,... Read More »

WakeyWakey Machine, week 7: An additional look into the door and figure mechanics

April 17, 2020 / by pake10 / Digital Fabrication 2020, Weekly Development

Planning and implementation At the beginning of week 7, we attended the mid-term presentations. We presented our work using the mid-term presentation and our rather extensive documentation as a basis. After the humorous presentation, we received... Read More »

WakeyWakey Machine, week 6: Furnishing and decorating the house

April 13, 2020 / by pake10 / Design, Digital Fabrication 2020, Weekly Development

Planning and implementation Having refurbished the TinkerCAD prototype last week, we wanted to focus on the sole appearance of the house this week. Jyrki had finished modelling some furniture to be placed inside the house:... Read More »

WakeyWakey Machine, week 5: Some improvements and finally, some music!

April 7, 2020 / by pake10 / Digital Fabrication 2020, Weekly Development

Planning and implementation Having created the electronics schematic last week, we came across the fact that the TinkerCAD prototype could be more accurate. We still can't simulate a SD card reader or a speaker with... Read More »

WakeyWakey Machine, week 4: Finishing with the electronics and some tidying up

April 2, 2020 / by pake10 / Digital Fabrication 2020, Weekly Development

Week 4: Finishing with the electronics and some tidying up A short recap, planning and implementation Last week, our main focus was in designing the physical housing for our project. The casing itself has been... Read More »

WakeyWakey Machine, week 3: 3D-modelling, some vector graphics and a cardboard prototype!

April 2, 2020 / by pake10 / Design, Digital Fabrication 2020, Weekly Development

Planning and implementation of the 3D structures Since we have proceeded with programming apparently as far as we can without having access to an Arduino or any components, we decided to start modelling the figure... Read More »

WakeyWakey Machine, week 2: TinkerCAD-prototype, programming and some careful planning

April 2, 2020 / by pake10 / Digital Fabrication 2020, Weekly Development

Planning and implementation This week we continued writing the code and began constructing a TinkerCAD prototype. However, before continuing with programming, there were some refinements and changes we wanted to make in our original idea... Read More »

WakeyWakey Machine, week 1: Introductory report

April 2, 2020 / by pake10 / Design, Digital Fabrication 2020, Weekly Development

Initial ideas and design sketches: how did it all begin? When starting to plan our project during the first lecture, our starting point was the alarm clock; however, we didn't want to go with the... Read More »

Summarizing the project and writing some personal reflection

Reflection and lessons learned

We have already discussed the specific challenges we have faced over the course of the documentation and described how we managed to solve them. However, there have been some recurrent themes we have run into during the project and we began the reflection by summarizing them.

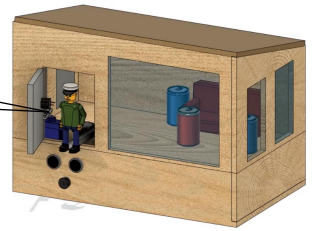
A key challenge over the course of the whole project has been the **planning and implementation of the project with very little physical footing.** Without having access to Fablab, we were largely limited to 3D modelling software when planning the house and simulating the door mechanisms, for instance. Martti did build a fine cardboard prototype of the house and while it turned out to be a great aid in visualizing our plan, testing different mechanisms with a cardboard prototype wasn't very beneficial or let alone convenient. As a result, we had to adapt to a certain level of abstractness. One

Key lessons learned

Never omit seemingly small details in design...

Plan carefully in advance.

Trial and error can be a surprisingly useful method when learning to use 3D modelling software!



small details

maintaining the balance

the overall view