Introduction
The goal of this masters thesis is to accelerate the technology within the healthcare sector. This can be done by shortening the time period from idea to clinical testing. These days it takes two or three years to make a working prototype ready for clinical testing. But we think it could be possible to do this within 1 year when you have access to the proper tools and information to do so. And that is what this masters’ thesis provides.

Results

- Online portal with all the information and tools needed to make a prototype or product for medical purposes:
  - Tool to help you choose a board
  - Example projects
  - Summarized open source licenses
  - Information about requesting a patent w.r.t. open source hardware

Patent request
Request your patent before you start prototyping so you do not interfere with the licenses of the open source hardware.

Mobile prototyping
- Make apps fast and easy
- Limited android knowledge
- Drag and drop process

Hardware prototyping
Advantages of Open Source:
- Faster and easier development
- Less expensive process and product
- A lot of support and examples
- Wide overall compatibility

Pre-clinical testing
This can be done faster because the development is in-house:
- No waiting time due to PCB supplier
- Rapid feedback to development team
- Close control over test results

Pre-clinical testing flowsheet:
1. Idea
2. Patent request
3. Prototyping
4. Pre-clinical testing
   - Negative results, make adjustments
5. Validate
   - Clinical testing
   - Getting CE markings
   - Preclinical product

shorten this time period from 2-3 years to 0.5-1 year

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