

# Minor Makers Lab: Making as Design Research, feb-july 2018

## Why?

Challenges in today's society are often complex, which means that for designers, more than coming up with solutions, it is important to understand how design skills can be used to generate understanding and knowledge to inform any design process. In this minor, you gain both the *making* and the *research skills* you need to do design research. You will make the invisible visible and the intangible tangible by building and refining design research tools for a specific context and present them in aesthetic ways that spark discussion.



FALL IN LOVE WITH THE PROBLEM,  
NOT YOUR SOLUTION



## First trimester

The first three months of the minor consist of intensive lab sessions in the Makers Lab, the maker space of the Amsterdam University of Applied Sciences. Here you will learn *basic and advanced digital fabrication techniques* (converting code or digital designs into 2D or 3D objects and electronic circuits). Together, you will work as an interdisciplinary group of creatives and technologists that build on each others strengths and skills.

## Second trimester

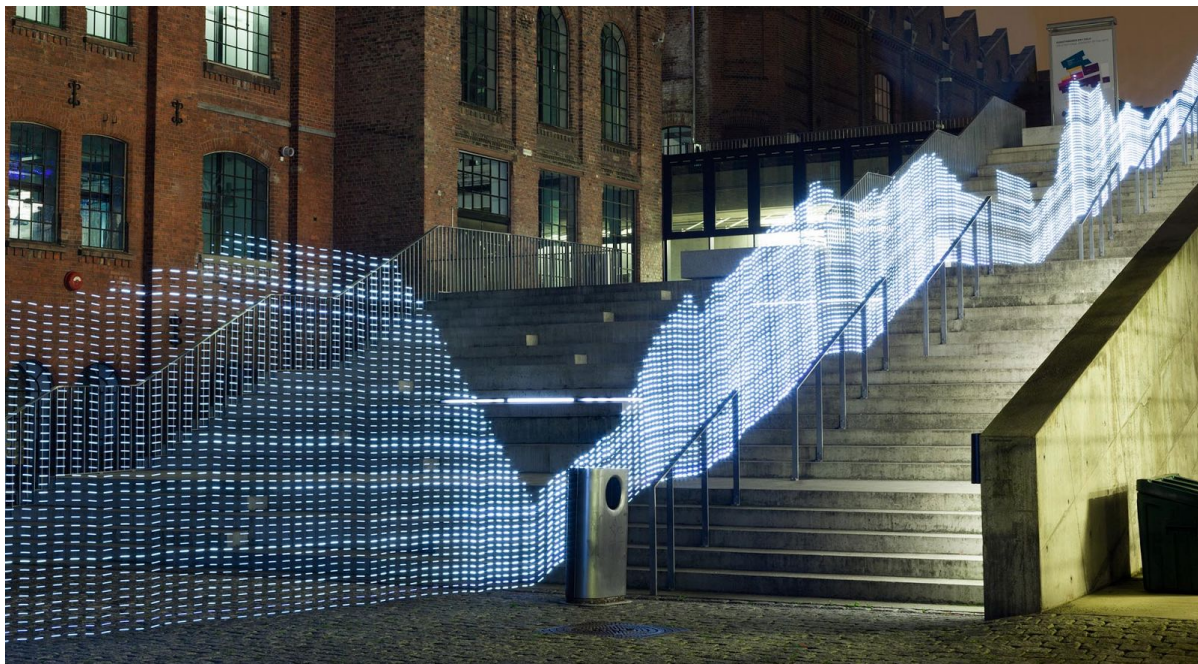
In the second part of the minor you will learn about *design research methods and tools*, and apply them to a real life problem in cooperation with researchers, external partners and fellow students. You always work towards a designed, tangible and shareable research output. Depending on your background, your learning goals and the chosen research theme of the semester, this research output may take the shape of networked objects, wearables, toys, interfaces or other prototypes, experiences, conversation starters, toolkits, exhibitions, (interactive) video, publications, games or installations.

During the course of the minor, students specify their personal learning objectives. Together with the group and mentors they will cultivate an appropriate learning environment and choose or propose additional learning activities required to meet their skills level, needs, and interests.

# MAKING VS. RESEARCH

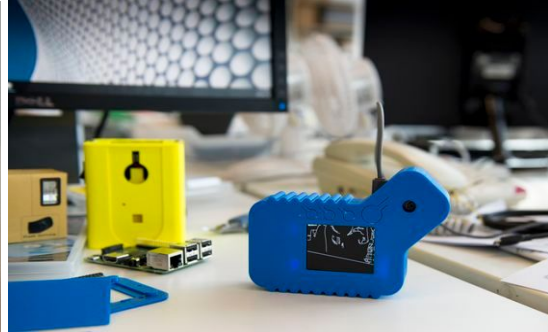
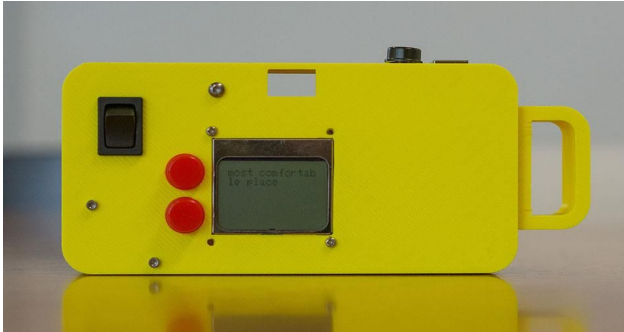


Plot Parties: Bringing together the expertise of many people in a collaboratively produced visualisation.



Immaterials, Timo Arnall: A physical representation of how different types of networks behave in their specific environments.

# MAKING VS. RESEARCH



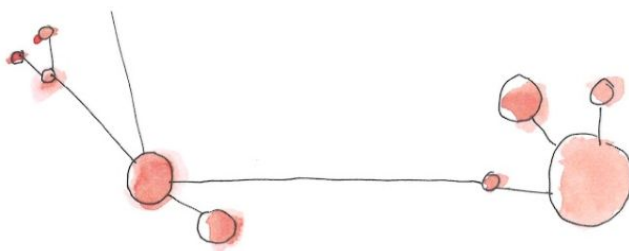
ProbeTools - Goldsmiths Interaction Research Studio: Open source digital devices for user research.



Who's Talking - Cathy Deng: App to keep track of who's dominating the conversation.



Ikdufniettezeggendat... - Moniker: Website that allows kids to share thoughts they are afraid to say out loud.



## Learning objectives

At the end of this minor you will be an all-round maker who has the knowledge and skills to build and adapt analog, digital and networked research tools to map out a problem area. You:

1. know all core digital fabrication techniques and modelling software to produce tangible 2D and 3D designs as well as the fundamentals of electronics design;
2. have knowledge of the context and history of makerspaces, open design principles and open source;
3. are able to work collaboratively in an interdisciplinary environment;
4. know how to take responsibility for your own learning process and objectives;
5. are able to document and share your design iterations, insights and learning progress using a process book;
6. are familiar with a number of research-by-design methods & tools and know how to adapt them for the needs of a specific research context;
7. can share the output of design research aesthetically, in a way that invites discussion.



## Are you...

...a self-directed student, aspiring to be a critical maker with strong hands-on design skills? Do you want to work experimentally in research and design? Do you write and speak English well and are you able to read and understand university-level English texts quickly and thoroughly?



Then please apply and submit your *letter of motivation* and a *portfolio of relevant work* (if applicable). A portfolio can consist of any design work, conceptual work or research project or documentation to demonstrate creative, conceptual, making skills and inquisitiveness. Give us an idea of who you are, how you work and how you realise ideas that you have. Please contact the coordinator if you have any doubts about what your portfolio should include. We will contact candidates for an intake in October to determine skills levels and interests in the group in order to further tailor the program's content to the group's interests and needs.

## Questions?

Please contact the minor coordinator Shirley Niemans at [s.j.niemans@hva.nl](mailto:s.j.niemans@hva.nl)

# MINOR MAKERS LAB

**Coordinator:**  
Shirley Niemans

**Lecturers and coaches:**  
Loes Bogers, Shirley Niemans, Marjolein Ruyg en Yuri Westplat

## Blok 1

Basic Digital Fabrication  
10 ECTS

Advanced Digital  
Fabrication  
5 ECTS

Individual  
assessment

Meet the Makers: Studio visits, excursions and guest lectures, and/or student initiated activities.

Week 1-7

Week 8-10

Week 10

## Blok 2

Making as Design Research, 5 ECTS

Team project  
10 ECTS

Individual  
assessment

Week 11-19

Week 20