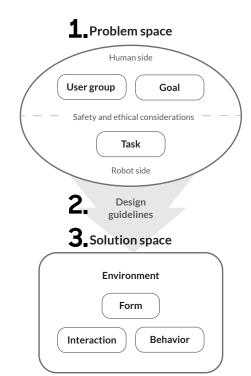
Canvases for the Process of Designing Social Robots

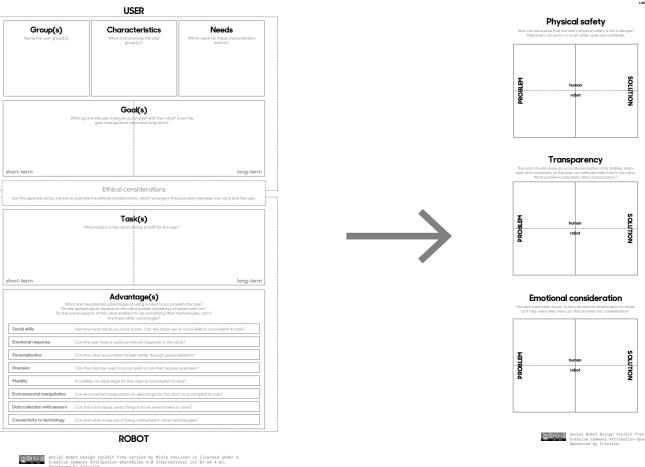


- 1. Defining the problem
- 2. Creating guidelines
- 3. Defining the solution
- 4. Iterate! After user and expert feedback, redefine your problem space, guidelines, and solution.

1. The Problem Space

What is the problem worth solving? Define it clearly through the user and the robot.

PROBLEM SPACE OF DESIGNING A ROBOT



The Problem Canvas

Define who you are building for and why. What are the advantages? Always use this canvas first.

The Ethics Canvas

How are ethics considered already in the definition of the problem? Use these six ethical considerations.

ETHICAL CONSIDERATIONS OF THE ROBOT

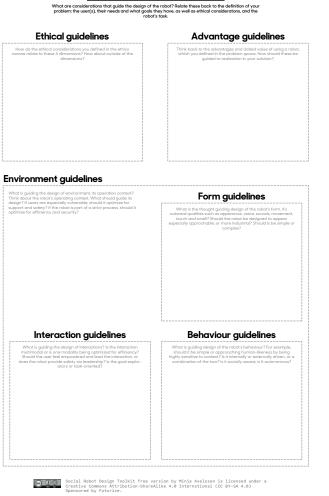
Equality across users

Behaviour enforcement

2. Guidelines

Create guidelines for your future robot. How will your problem be answered by the design?

ROBOT DESIGN GUIDELINES

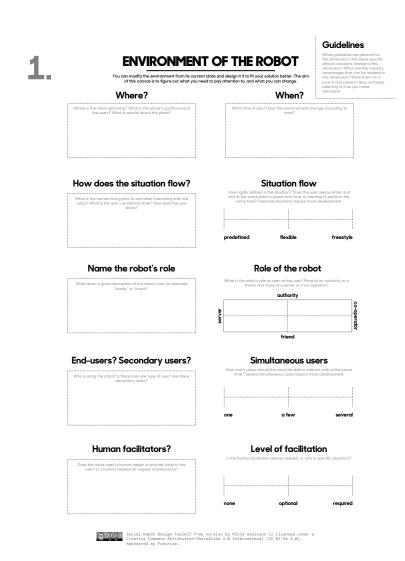


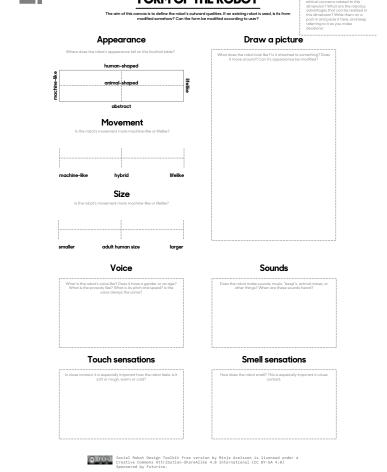
The Guidelines Canvas

How will the definition of your problem and the ethics be visible in the final design? Make guidelines for different dimensions of the robot.

3. The Solution Space

It's time to start designing your robot! The solution is visible in four dimensions: environment, form, interaction, and behaviour.





The Environment Canvas

What is the context of the robot's opera-

The Form Canvas

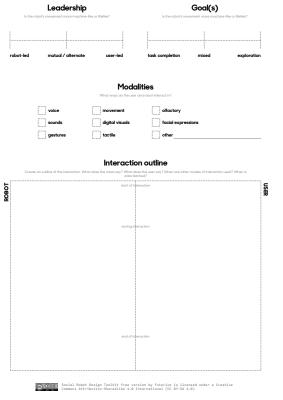
What are the robot's outwardly perceptible qualities?

BEHAVIOUR OF THE ROBOT

none partial extensive

none partial extensive

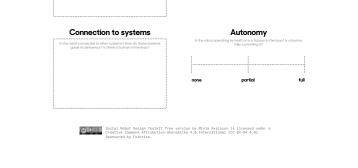
INTERACTION WITH THE ROBOT



The Interaction Canvas

How does the robot interact with users?

external / mixed internal environment based



The Behaviour Canvas

What drives the robot's behaviour?

Context-based behaviour Draw a picture facial expressions

4. Iterate

Test your prototype, ask for expert and user feedback, and iterate.

The MVP Canvas

If you want to prototype rapidly, the "minimum viable product" canvas can act as a replacement for the four dimensions.

Interaction outline