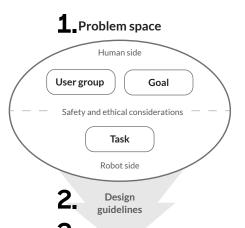
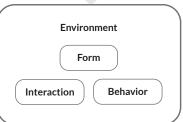
Canvases for the Process of Designing Social Robots



guidelines

3. Solution space

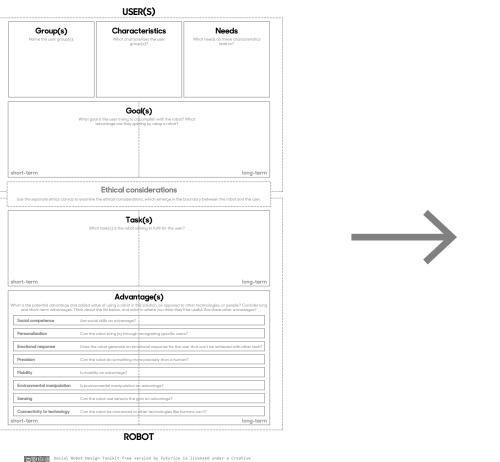


- **1.** Defining the problem
- Creating guidelines
- **3.** Defining the solution
- 4. Iterate! After user and expert feedback, redefine your problem space, guidelines, and solution.

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

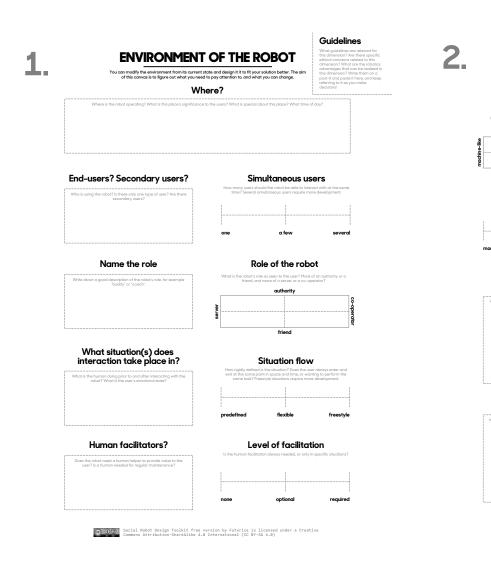


The Guidelines Canvas

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 operation?

The Form Canvas

Touch sensations

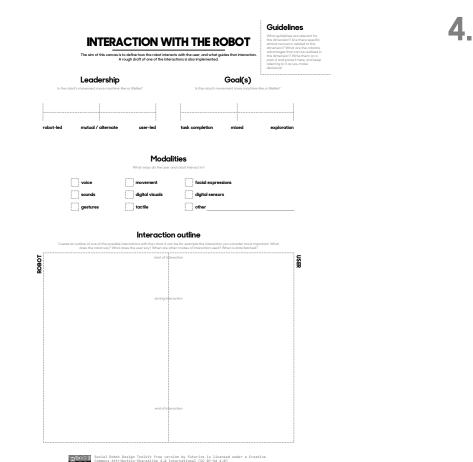
animal-shaped

What are the robot's outwardly perceptible qualities?

BEHAVIOUR OF THE ROBOT

Contextual adaptation

Smell sensations



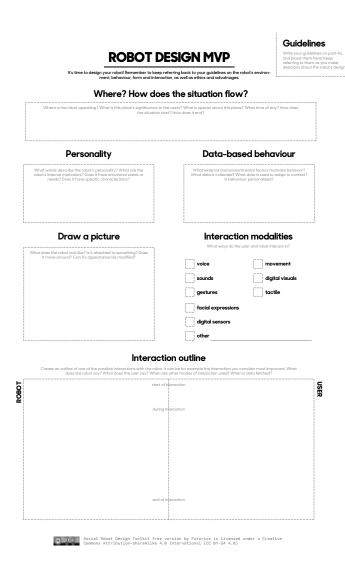
The Interaction Canvas

How does the robot interact with users?

Social awareness None social powers in the related to the social to the house stightly developed? In the related operating by last or a schoral set the loop? Is in human lastly connecting to the loop? In human lastly connecting to the loop? In human lastly connecting to the loop? It is in human lastly connecting to the loop? In human las

The Behaviour Canvas

What drives the robot's behaviour?



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.