ROBOT DESIGN GUIDELINES

What are considerations that guide the design of the robot? Relate these back to the definition of your problem: the user(s), their needs and what goals they have, as well as ethical consideratons, and the robot's task.

Environment guidelines

What is guiding the design of environment, its operation context? Think about the robot's operating context. What should guide its design? If users are especially vulnerable, should it optimize for support and safety? If the robot is part of a strict process, should it optimize for efficiency and security?

Form guidelines

What is the thought guiding design of the robot's form, it's outward qualities such as apperance, voice, sounds, movement, touch and smell? Should the robot be designed to appear especially approchable, or more industrial? Should is be simple or complex?

Interaction guidelines

What is guiding the design of interactions? Is the interaction multimodal or is one modality being optimized for efficiency? Should the user feel empowered and lead the interaction, or does the robot provide safety via leadership? Is the goal exploratory or task-oriented?

Behaviour guidelines

What is guiding design of the robot's behaviour? For example, should it be simple or approaching human-likeness by being highly sensitive to context? Is it internally or externally driven, or a combination of the two? Is it socially aware, is it autonomous?

Ethical guidelines

How do the ethical considerations you defined in the ethics canvas relate to these 4 dimensions? How about outside of the dimensions?

Advantage guidelines

Think back to the advantages and added value of using a robot, which you defined in the problem space. How should these be guided to realization in your solution?