PROBLEM SPACE OF DESIGNING A ROBOT

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

USER

Group(s)

Name the user group(s).

Characteristics

What characterises the user group(s)?

Needs

What needs do these characteristics lead to?

Goal(s)

What goal is the user trying to accomplish with the robot? Does the goal change short-term and long-term?

short-term

long-term

Ethical considerations

Use the separate ethics canvas to examine the ethical considerations, which emerge in the boundary between the robot and the user.

Task(s)

What task(s) is the robot aiming to fulfil for the user?

short-term

long-term

Advantage(s)

What are the potential advantages of using a robot to accomplish this task?
Do the technological aspects of the robot enable something a human can't do?
Do the social aspects of the robot enable it to do something other technologies can't?
Are there other advantages?

Social skills	Humans treat robots as social actors. Can the robot use its social skills to accomplish its task?
Emotional response	Can the user have a useful emotional response to the robot?
Personalization	Can the robot accomplish its task better through personalization?
Precision	Can the robot be used to accomplish a task that requires precision?
Mobility	Is mobility an advantage for the robot to accomplish its task?
Environmental manipulation	Is environmental manipulation an advantage for the robot to accomplish its task?
Data collection with sensors	Can the robot sense useful things from its environment or users?
Connectivity to technology	Can the robot make use of being connected to other technologies?

ROBOT