T. BOCK, C. GEORGOULAS, T. LINNER. ***Towards robotic assisted hygienic services: Concept for assisting and automating daily activities in the bathroom.*** *Gerontechnology 2012;11(2):362;* doi:10.4017/gt.2012.11.02.127.00 **Purpose** Elderly people use competencies necessary to perform activities of daily living (ADL) in the following sequence: 1. bathing, 2. dressing, 3. going to the toilet, 4. transferring to another room, 5. continence, 6. eating. Although bathing is a basic ADL, little has been tried to establish advanced assistance technology for this. In the proposed research paper a basis for introducing automation and robotics for bathing activities was built. **Method** The act of bathing can be split up in a multitude of subactivities which have various relations to each other. In our research we identified those subactivities as well as the usual sequence of activity (activity chains). In order to identify subactivities which can and/or should be automated the bathing activity of several persons of different ages were analyzed (course of activity, time needed to perform subactivities, problems etc.). Based on this research, concepts for partially and fully automated bath environments have been explored. This exploration design was systematically performed as follows: (i) research and identification of needs, (ii) definition of requirements, (iii) identification of technologies and processes, (iv) initial concept, (v) experiment in real environment, and (vi) final concept and further development roadmap. **Results & Discussion** The concepts developed for configuring a robotic bath show that it is possible to automate a sequence of subactivities in the bathroom. However, there are still many open questions: What degree of automation is suitable for which kind of person? Can safety issues in the bathroom, be met by an automated bath? Can the system be modularized in order to meet the requirements of different room layouts?

References

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Keywords: ambient integrated robotics, daily living activities, demographic change design
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Full paper: doi:10.4017/gt.2012.11.02.127.713

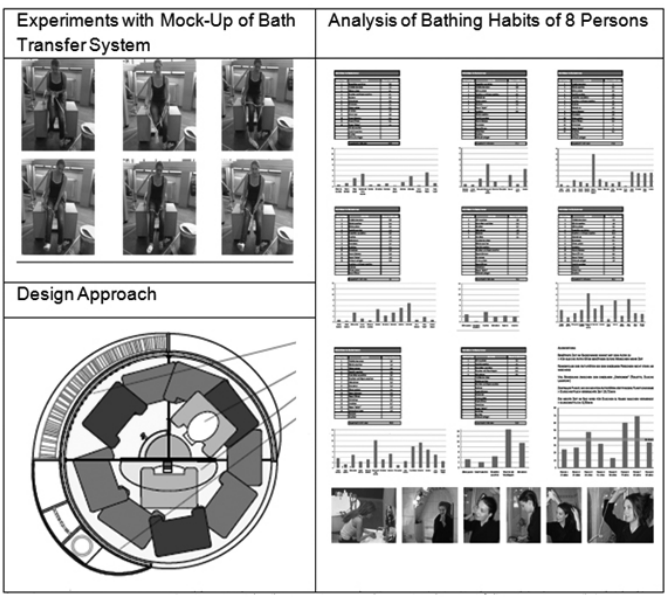

Figure 1. Presentation of various stages of the proposed implementation