INTRODUCTION OF THE iTOILET INTERNATIONAL RESEARCH PROJECT

2016.05.25.
ABOUT US

• National Institute for Medical Rehabilitation – Biomedical Rehabilitation Research Program
  • Leader: Dr. Gábor Fazekas Ph.D.
  • Colleges (in this project):
    • Györgyi Stefanik – physiotherapist, ergotherapist
    • Edit Mészáros – ergotherapist
    • Anna Sobják – physiotherapist
    • Rita Návay–Dorner – student specialized in rehabilitation
    • András Tóth – engineer
    • Tamás Pilissy – engineer
HISTORY OF THE WATER CLOSET

- Taboo topic in all ages → relatively few written reference
- Only slight improvements since invention
- WC\text{s} for special needs appeared in the last 50 years
e.g. integrated bidet function, raised, heated, self-sanitizing seat
PROBLEMS IN TOILET USE

• Elderlies and people with physical dysfunction often afraid of using/going out to the toilet

• Insecure situations can occur during:
  • Sitting down – too low, no handrail
  • Standing up
  • Toilet use e.g. due to lost of balance

• These problems are avoidable by aid of caregivers and relatives, but in return dignity is harmed
AIM OF THE iTOILET PROJECT

• Development of a „smart toilet”
  • Stand up and sit down support
  • Emergency detection
  • Alerting of caregivers/relatives
  • Protection of dignity and privacy

• In domestic environment:
  • Supporting self-sufficiency
  • Elderlies can stay longer in their own homes

• In institutional environment:
  • Reducing burden of caregivers
THE BASE TYPE – STAND-UP SUPPORT
FOR EXTANT TOILETS

• Beside supporting the standing and sitting down, the height and tilt angle of the toilet seat can be customized – video of a similar product
THE BASE TYPE – STAND–UP SUPPORT

WALL MOUNTED TOILET

• Height and tilt adjustment, flush and bidet function operation by buttons placed on the handrail
ADDITIONAL FUNCTIONS

- User identification
- Application of customized settings

  Personalized
  - Seat height
  - Seat tilt angle
ADDITIONAL FUNCTIONS

• Control the toilet by spoken commands – Both hands remain free
• Spoken help (from the toilet) about the available functions – example from another project
ADDITIONAL FUNCTIONS

• Fall detection

• Emergency call
WHAT IS COMING – THE INTERVIEW

• Lasts about one hour
• Talk about defined topics such as toilet related requirements, needs, functions for comfort and safety
• In groups of 6–8 persons
• Fill a short questionnaire anonymously at the end of the interview
THANK YOU FOR HELPING OUR WORK!

Help me stand up!