

INTRODUCTION OF THE iTOILET INTERNATIONAL RESEARCH PROJECT



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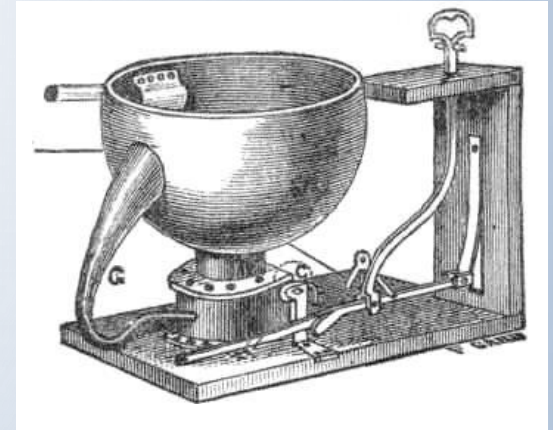
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ABOUT US

- 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
- WCs 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

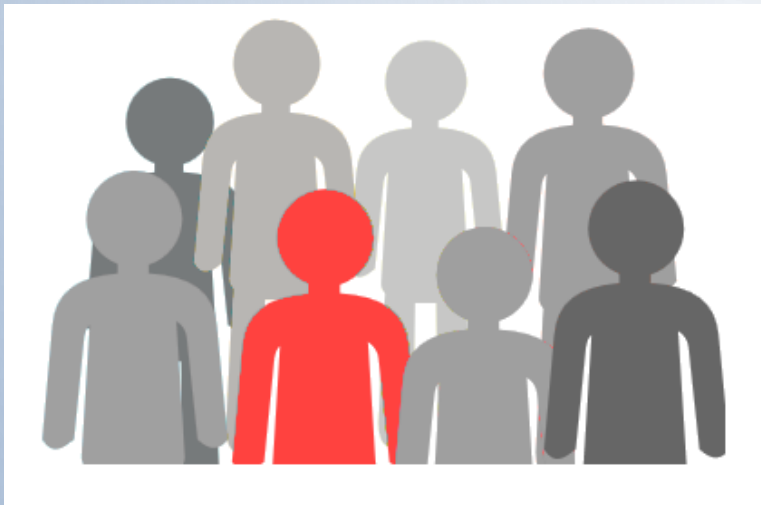
- Height and tilt adjustment, flush and bidet function operation by buttons placed on the handrail



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!

