

**Testing the FRR  
prototype system in  
URB Athens –  
including report about  
sequence of testing  
and used material**



**ΕΘΝΙΚΟΝ & ΚΑΠΟΔΙΣΤΡΙΑΚΟΝ  
ΠΑΝΕΠΙΣΤΗΜΙΟΝ ΑΘΗΝΩΝ**  
**NATIONAL & KAPODISTRIAN  
UNIVERSITY OF ATHENS**

**P. Sourtzi**

*Hellenic Association of  
Gerontology and  
Geriatrics*

**&**

*Faculty of Nursing,  
University of Athens*



**FRR prototype Tests**

***EPT (Engineering ProtoType) tests  
(February 2003)***

***APT: Alpha ProtoType tests  
(September 2003)***

***BPT: Beta ProtoType tests  
(June 2004)***

***PPPT: PreProduction ProtoType tests  
(December 2004-February 2005)***

## EPT in URB Athens

### *EPT components:*

- *Common toilet seat*
- *2 horizontal grip bars*
- *moving  $\updownarrow$  toilet bowl*
- *moving  $\updownarrow$  washbasin*
- *full functioning toilet*
- *in a smaller than required room*



**Number of users: 8**

## APT in URB Athens

Number of users: 9

### APT components:

- *Basic Lift – WC*
- *Mounting grid for toilet seat designs*
- *3 different toilet seats "Basic", "Flexible" and "Transfer"*
- *horizontal grab bars*
- *movement control*



"Flexible" seat



"Basic" seat



"Transfer" seat

## BPT components

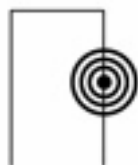
Number of users: 10

*The BPT components we have tested in URB Athens are the following:*

- 1) Toilet seat and transfer seat
- 2) Horizontal grip bars
- 3) Wall mounted body support bar
- 4) Waste container(s)
- 5) Accessibility sign
- 6) The user interface



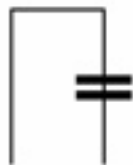
## Accessibility Sign



1

Door with circular symbol

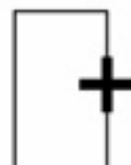
*Is intended to indicate the ID function of the system*



2

Door with equality symbol

*Is intended to indicate the equality of all users*



3

Door with plus symbol

*Is intended to show the extra service the system offers*



4

Door with remote control symbol

*Is intended to show that the system is operated via remote ID*



5

Door with remote communication symbol

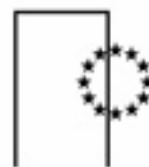
*Is intended to show that the system is operated via remote ID*



6

ID card with remote control symbol

*Is intended to show that the system is operated via remote ID*



7

Door with EU-stars

*Is intended to show that the system is equal in the whole of EU*



8

Door with 3 stars

*Is intended to show that the system is a 'three-star' service system*

## PPPT components

Number of users:

22 primary

11 secondary

*The PPPT components we have tested in URB Athens are the Following:*

- 1) Toilet seat and transfer seat
- 2) Vertical grip bars
- 3) Wall mounted body support bar
- 4) Accessibility sign
- 5) Toilet room
- 6) Storage place

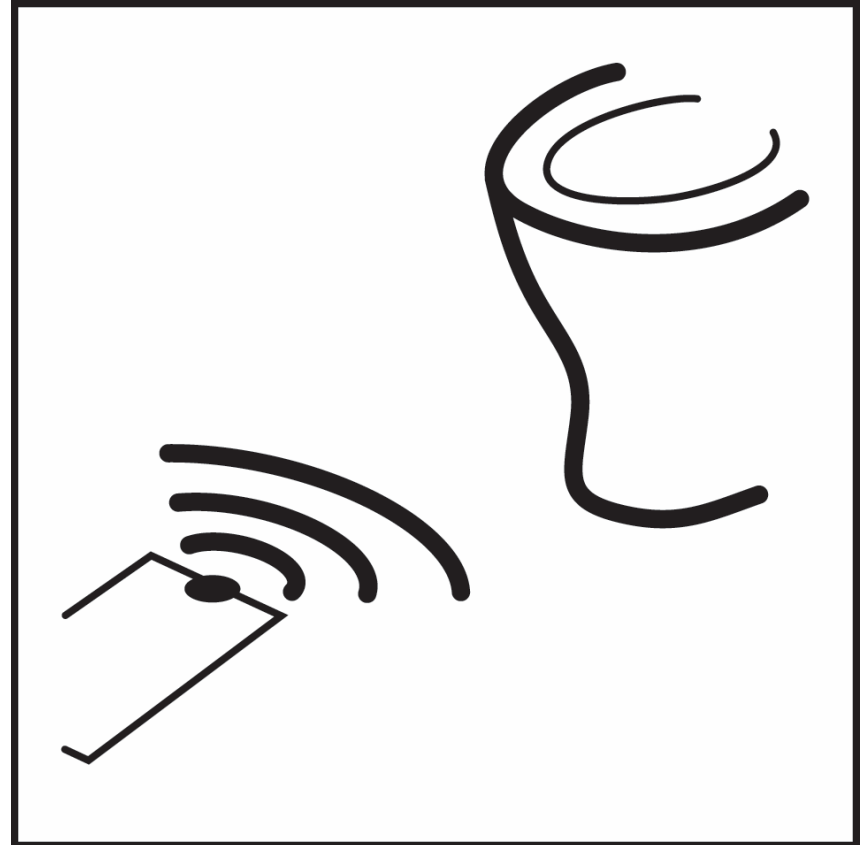
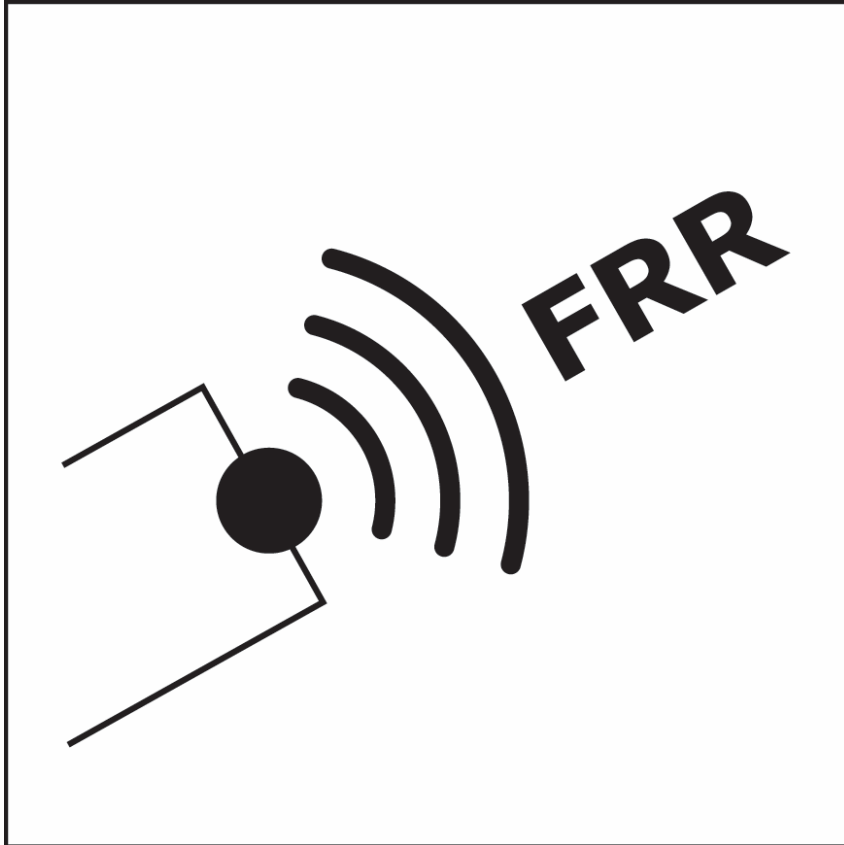


PPPT



Wall mounted body support bar

# Accessibility Sign





**Tests persons  
recruitment**

**-Primary users:**

*Elderly people from KAPI (Centres for Older People) or from the researchers' corresponding milieu*

*Disabled people with movement difficulties*

**-Secondary users:**

*Nurses*

*Occupational therapists*

*Physiotherapists*

**Experiences of testing:  
Older People**

*The testing procedure was very interesting to all of the users.*

*The prototype seemed to be:*

*Interesting, with many features and very helpful*

*Very innovative and up-to-date*

*but also,*

*Probably expensive*

*Complicated to some users due to some difficulty in use*

*“Too good to be true”*

**Experiences of testing:  
People with disabilities**

***The testing procedure was very  
interesting to most of the users***

***The prototype seemed to be:***

***New and innovative, very interesting,  
and useful to their needs***

***but***

***They needed more features to be  
provided when they used the  
prototype***

**Experiences of testing:  
Secondary users**

***The testing procedure was commended  
as demanding by the most of the  
secondary users***

***The prototype seemed to be:***

***New and innovative, very interesting,  
and useful to the needs of people  
who care for***

***but***

***They felt that it would be difficult for  
such device to be widely available***

## Experiences of the research team

- *Working with people with different abilities*
- *Gaining knowledge about what test persons need, think and feel about their difficulties in daily life*
- *Managing difficulties during interaction with test persons and prototypes*
- *Working in a multidisciplinary group*
- *Collaborating successfully with other URBs from different scientific and cultures*