

Type: Entertainment Robot

**AIBO**

Company: **Sony**

Research Project:

Target Group: **young people / children**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.sony-aibo.com>

Country: **JP**

Year: **2006**

est. Price: **approx. 2500€**

**Description:**

Entertainment robot that resembles the look and behavior of a dog. Although over 150.000 units were sold worldwide, the product was discontinued in 2006 because of poor profit.



<http://www.sony-aibo.com>

**Application Domain:**

Entertainment

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Manipulation

**ASIBOT**

Company:	Country: <b>SP</b>
Research Project:	Year: <b>2010</b>
Target Group: <b>impaired people</b>	est. Price: <b>n.a</b>
Technology Readiness: <b>7-System prototype demonstration in an operational environment</b>	
Reference Link: <b><a href="http://roboticslab.uc3m.es/roboticslab/robot/asibot">http://roboticslab.uc3m.es/roboticslab/robot/asibot</a></b>	

**Description:**

ASIBOT is a manipulator robot with 5 DOF, about 10 kg of weight, 1.3 m of reach and 2 kg of payload. The feature that makes the robot unique is the fact that all the control system is on-board. It needs only 24V external power supply for start working. This is why the robot is totally portable with the weigh and size (after homing) that permit them to be transported, for example, as a hand bag in the airplanes.

The climbing ability of the ASIBOT transforms it into a mobile robot able to move in domestic and office structural environments.

The robot applications are oriented mainly to domestic assistive task for elderly and diseased people. The applications that have been tested in real environments and with real patients are: eating, drinking, shaving, make up, tooth cleaning, etc. The robot is under testing in the National Hospital for Tetraplegics in Toledo now.



<http://roboticslab.uc3m.es/roboticslab/robot/asibot>

**Application Domain:**

Personal Care Support  
Physical Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

## Aufstehlifter AKS TORNEO

Company: **AKS**

Research Project:

Target Group: **impaired people**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.aks.de/sites/torneoii.html>

Country: **GER**

Year: **2012**

est. Price: **2300€**

### Description:

The active hoist, aks-torneo II, is designed for users with residual mobility. The movement of the patient is optimally supported through the hoist.



<http://fruehwaldfiles.web-tech.at/1293.jpg>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Rehabilitation Robot

## Auto Ambulator

Company: HealthSouth Corporation

Country: US

Research Project:

Year: 2002

Target Group: impaired people

est. Price: n.a.

Technology Readiness: 10-Commercial

Reference Link: <http://www.healthsouth.com/experience-healthsouth/the-healthsouth-difference/leading-technology/autoambulator/>

### Description:

Supports patients suffering from stroke, spinal cord injury, Multiple Sclerosis and Parkinson's Disease, which often have a hard time walking. A popular therapy, BWSTT (body-weight supported treadmill training) attempts to retrain a patient's mind and muscles to walk properly.



<http://www.pearltrees.com/physiofirst/neuro-rehabilitation/id12030371/item138098111>

### Application Domain:

Rehabilitation Support

### AAL Robot Features:

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Personal Care Robot

**Bestic**

Company: **Bestic**

Country: **SE**

Research Project:

Year: **2013**

Target Group: **impaired people**

est. Price: **n.a.**

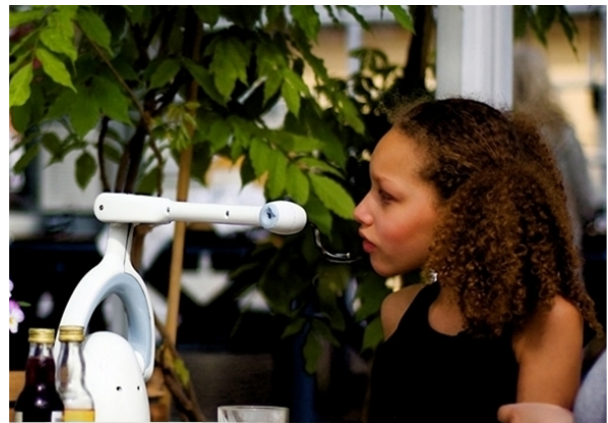
Technology Readiness: **10-Commercial**

Reference Link: <http://www.besticinc.com/home/>

**Description:**

Bestic can best be described as a small, robotic arm with a spoon in the end that can easily be maneuvered.

By choosing a suitable control device, the user can independently control the movement of the spoon on the plate and choose what and when to eat.



[http://www.informationweek.com/mobile/10-medical-robots-that-could-change-healthcare/d/d-id/1107696?page\\_number=5](http://www.informationweek.com/mobile/10-medical-robots-that-could-change-healthcare/d/d-id/1107696?page_number=5)

**Application Domain:**

Physische Unterstützung  
Personal Care Support  
Physical Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Fetch & Carry Support

**Botlr**

Company: <b>Savioke</b>	Country: <b>US</b>
Research Project:	Year: <b>2014</b>
Target Group: <b>general public</b>	est. Price: <b>unknown</b>
Technology Readiness: <b>9-Actual system proven through successful mission operations</b>	
Reference Link: <b><a href="http://www.savioke.com">http://www.savioke.com</a></b>	

**Description:**

Butler for hotel chain. Delivers small items autonomously from the reception to the rooms



<http://www.savioke.com>

**Application Domain:**

Fetch & Carry

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

**Braava**

Company: **iRobot**

Country: **US**

Research Project:

Year: **2010**

Target Group: **general public**

est. Price: **300€**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.irobot.at/>

**Description:**

This cleaning device wipes floors with wet or dry tissues.



<http://www.irobot.at/Shop/Robots/Braava/300-Serie/iRobot-Braava-320-Floor-Mopping-Robot>

**Application Domain:**

Haushaltstätigkeiten  
Cleaning  
Housekeeping Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Fetch & Carry Support

## Budgee for assistive living

Company: **Five Elements Robotics**

Country: **US**

Research Project:

Year: **2014**

Target Group: **older adults**

est. Price: **1545 USD**

Technology Readiness: **10-Commercial**

Reference Link: <http://5elementsrobotics.com>

### Description:

Budgee follows you with a bag, in which you place your items. You can take Budgee shopping or for excursion - it will follow you around and keep your hands free from heavy carrying.



<http://www.33rdsquare.com/2014/01/simple-and-effective-budgee-robot-is.html>

### Application Domain:

Fetch & Carry

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Companion Robot

## Care-O-bot 4

Company: **Fraunhofer IPA**

Research Project:

Target Group: **care staff**

Technology Readiness: **7-System prototype demonstration in an operational environment**

Reference Link: <http://www.care-o-bot.de/>

Country: **GER**

Year: **2015**

est. Price: **70.000  
-150.000 €**

### Description:

Care-O-bot 4 is the product vision of a mobile robot assistant to actively support humans in their daily life. It can be used for a variety of household tasks, for example to deliver food and drinks, to assist with cooking or for cleaning.



<http://www.care-o-bot.de/>

### Application Domain:

soziale Unterstützung, Kommunikation  
Physische Unterstützung  
Communication & Social Support  
Fetch & Carry  
Cognitive / Emotional Support  
Entertainment  
Monitoring of Health, Security or Safety

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

## CareBot

Company: **Geckosystems**

Country: **US**

Research Project:

Year: **2009**

Target Group: **older adults**

est. Price: **18500 USD**

Technology Readiness: **7-System prototype demonstration in an operational environment**

Reference Link: <http://www.geckosystems.com>

### Description:

The CareBot is designed as a companion robot that supports older users at home and was the first eldercare assistance robot to be tested in an actual home environment.



<http://www.geckosystems.com>

### Application Domain:

Entertainment

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

## Catgenie

Company: **PetNovations Ltd.**

Country: **Israel**

Research Project:

Year: **2006**

Target Group: **general public**

est. Price: **419 €**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.catgenie.com>

### Description:

self-cleaning toilet for cats.



<http://www.robotshop.com/en/petnovations-catgenie-120-self-flushing-washing-cat-box-tabby.html>

### Application Domain:

Haushaltstätigkeiten  
Cleaning  
Housekeeping Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☐ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Rehabilitation Robot

**CCPM**

Company: **FERROBOTICS**

Country: **AT**

Research Project:

Year: **2013**

Target Group: **impaired people**

est. Price: **n.a.**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.ferrobotics.at/en/products/medical-technology/ccpm.html>

**Description:**

This CCPM line detects eventual pain reactions of the patient, gives in and integrates them intuitively into the therapy. This very new CPM generation performs with humanlike feeling competence. Beyond the so-far limits in the automated physiotherapy CCPM optimizes both, economical efficiency and therapy quality.



<http://www.ferrobotics.at/en/products/medical-technology/ccpm.html>

**Application Domain:**

Rehabilitation Support

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Personal Care Robot

## Cooki

Company: **Sereneti**

Country: **US**

Research Project:

Year: **2014**

Target Group: **general public**

est. Price: **n.a**

Technology Readiness: **6-Model or prototype demonstration in a relevant environment**

Reference Link: <http://www.gizmag.com/cooki-robotic-chef/35510/>

### Description:

Cooki is a self-contained unit that comprises a small robotic arm positioned above a cooking pot that sits atop an induction cooktop. After selecting your desired recipe from the companion app on an Android or iOS device, you're prompted to load the relevant trays of fresh, ready-to-cook, pre-portioned ingredients into the side of the device.



<http://www.gizmag.com/cooki-robotic-chef/35510/>

### Application Domain:

Personal Care Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Fetch & Carry Support

## CoRo Platform

Company:	Country: IT
Research Project: Robot-ERA	Year: 2014
Target Group: older adults	est. Price: n.a
Technology Readiness: 6-Model or prototype demonstration in a relevant environment	
Reference Link: <a href="http://www.robot-era.eu/robotera/">http://www.robot-era.eu/robotera/</a>	

### Description:

carrier robot for indoor usage



<http://www.robot-era.eu/robotera/>

### Application Domain:

Fetch & Carry

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

DoRo

Company:	Country: IT
Research Project: Robot-ERA	Year: 2014
Target Group: older adults	est. Price: n.a
Technology Readiness: 6-Model or prototype demonstration in a relevant environment	
Reference Link: <a href="http://www.robot-era.eu/robotera/">http://www.robot-era.eu/robotera/</a>	

**Description:**

Domestic robot for usage at home or in sheltered housing. Supports older users with several different applications.



<http://tams-www.informatik.uni-hamburg.de/projects/robot-era/index.php>

**Application Domain:**

Housekeeping Support  
Communication & Social Support  
Monitoring of Health Security or Safety  
Fetch & Carry

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Company:	Country: n.a.
Research Project:	Year: 2012
Target Group: general public	est. Price: n.a
Technology Readiness: 2-Technology concept and/or application formulated	
Reference Link: <a href="http://www.techhive.com/article/252138/meet_the_robotic_luggage_that_follows_you_like_a_dog.html">http://www.techhive.com/article/252138/meet_the_robotic_luggage_that_follows_you_like_a_dog.html</a>	

**Description:**

suitcase on wheels,  
responds to sender that is worn by the user  
(not a serious product)



[http://www.techhive.com/article/252138/meet\\_the\\_robotic\\_luggage\\_that\\_follows\\_you\\_like\\_a\\_dog.html](http://www.techhive.com/article/252138/meet_the_robotic_luggage_that_follows_you_like_a_dog.html)

**Application Domain:**

Haushaltstätigkeiten  
Mobility Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Companion Robot

**Florence**

Company:	Country: <b>EU</b>
Research Project: <b>Florence</b>	Year: <b>2012</b>
Target Group: <b>older adults</b>	est. Price: <b>n.a</b>
Technology Readiness: <b>6-Model or prototype demonstration in a relevant environment</b>	
Reference Link: <b><a href="http://www.florence-project.eu/">http://www.florence-project.eu/</a></b>	

**Description:**

The project aims to create a low-cost solution which is technically feasible with the current state of technology. The Florence robot is a wheel-based, 1,5 meter high, screen-based robot with no arms. Sensor input is based on a 2D laser scanner, 3D structured light (kinect) and an (optical) camera. The robot software is based on the Robotic Operating System (ROS) – the emerging de facto standard in robotic software. In addition, the project focuses on a scalable platform-based approach that enables the addition/extension of 3rd party applications.



<http://www.florence-project.eu/>

**Application Domain:**

Communication & Social Support  
Monitoring of Health, Security or Safety  
Cognitive / Emotional Support

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

**FRIEND**

Company: **IAT Uni Bremen**

Country: **GER**

Research Project:

Year: **2003-2012**

Target Group: **impaired people**

est. Price: **n.a**

Technology Readiness: **9-Actual system proven through successful mission operations**

Reference Link: <http://www.iat.uni-bremen.de/sixcms/detail.php?id=1090>

**Description:**

The assistive robot FRIEND (Functional Robot arm with user-friENdly interface for Disabled people) is a semiautonomous robot to support users with handicaps and older users. The robot was developed at the University of Bremen in the course of several research projects over a time span of approx. 10 years.



<http://www.iat.uni-bremen.de/sixcms/detail.php?id=1090>

**Application Domain:**

Mobility Support  
Physical Support  
Manipulation Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Telepresence Robot

**Giraff**

Company: **Giraff Technologies**

Country: **SE**

Research Project: **Giraffe+, Excite**

Year: **2012**

Target Group: **older adults**

est. Price: **n.a**

Technology Readiness: **8-Actual system completed and qualified through test and**

Reference Link: **<http://www.giraff.org/?lang=en>**

**Description:**

The robot uses a Skype-like interface to allow e.g. relatives or caregivers to virtually visit an elderly person in the home. The robot is embedded into a smart-home environment which uses sensors to measure medical and environmental parameters.



[http://www.informationweek.com/mobile/10-medical-robots-that-could-change-healthcare/d/d-id/1107696?page\\_number=2](http://www.informationweek.com/mobile/10-medical-robots-that-could-change-healthcare/d/d-id/1107696?page_number=2)

**Application Domain:**

soziale Unterstützung, Kommunikation  
Communication & Social Support  
Monitoring of Health, Security or Safety

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

## Google Car

Company:	Google Inc.	Country:	US
Research Project:		Year:	2014
Target Group:	general public	est. Price:	n.a
Technology Readiness:	8-Actual system completed and qualified through test and		
Reference Link:	<a href="http://www.google.com/selfdrivingcar/">http://www.google.com/selfdrivingcar/</a>		

### Description:

autonomous car that drives without intervention of the user.



<http://recode.net/2014/05/27/googles-new-self-driving-car-ditches-the-steering-wheel/>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

## Grillbot

Company: Grillbot, LLC

Research Project:

Target Group: general public

Technology Readiness: 10-Commercial

Reference Link: <http://grillbots.com>

Country: US

Year: 2014

est. Price: 129USD

### Description:

The grillbot does all the grill cleaning for you. No more scrubbing! A grillbot is easy-to-use and fun to watch



<http://grillbots.com>

### Application Domain:

Housekeeping Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

**Guido**

Company: **Haptica**

Country: **US**

Research Project:

Year: **2012**

Target Group: **older adults**

est. Price: **yet unknown**

Technology Readiness: **6-Model or prototype demonstration in a relevant environment**

Reference Link: <http://www.rehab.research.va.gov/jour/00/37/6/lacey376.htm>

**Description:**

The Pam-Aid looks like a closed-front walker on wheels and has bicycle-type handlebars. The person walking behind the device turns the handlebars, causing the wheels to turn. If the ultrasonic sensors detect an obstacle in front of it, the brakes prevent the user and device from colliding with it.



Figure 1.  
Front view of Guido robotic walker.

<http://www.rehab.research.va.gov/jour/08/45/9/Rentschler.html>

**Application Domain:**

Mobilität  
Mobility Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Personal Care Robot

## Handy 1

Company: **RehabRobotics**

Research Project:

Target Group: **impaired people**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.emeraldinsight.com/doi/abs/10.1108/01439919810232459>

Country: **UK**

Year: **1987**

est. Price: **n.a.**

### Description:

The Handy 1 was developed in 1987 by Mike Topping to assist an 11 year old boy with cerebral palsy to eat unaided. The system is a low-cost, commercially available robotic system capable of assisting the most severely disabled with several everyday functions such as eating, drinking, washing, teeth cleaning, shaving and makeup application



<http://robotnews.wordpress.com/2006/04/03/handy1-rehabilitation-robot-for-the-severely-disabledhelping-you-to-eat-and-drink-and-brush-and-even-do-make-up-2/>

### Application Domain:

Physische Unterstützung  
Personal Care Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Companion Robot

**Hector**

Company:	Country: <b>GER</b>
Research Project: <b>Companionable</b>	Year: <b>2012</b>
Target Group: <b>older adults</b>	est. Price: <b>n.a</b>
Technology Readiness: <b>7-System prototype demonstration in an operational environment</b>	
Reference Link: <b><a href="http://www.companionable.net">http://www.companionable.net</a></b>	

**Description:**

This prototype is developed in a series of German national and EU funded research projects and represents a typical socially assistive mobile platform to support older adults at home.



[http://www.plasticpals.com/?attachment\\_id=33946](http://www.plasticpals.com/?attachment_id=33946)

**Application Domain:**

Cognitive / Emotional Support  
Monitoring of Health Security or Safety  
Entertainment  
Communication & Social Support  
Monitoring of Health, Security or Safety

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Personal Care Robot

**HIRB**

Company: **Sanyo**

Research Project:

Target Group: **care staff**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.globalaging.org/elderrights/world/2004/japaninvention.htm>

Country: **JP**

Year: **2004**

est. Price: **50000 USD**

**Description:**

Sanyo unveiled the \$50,000 HIRB ("Human In Roll-lo Bathing") system, a compact version designed for use in elderly homes. This is an ultrasonic Bath, a pod-like human washing machine that cleans, massages and dries the user in a fully automated 15-minute process.



<http://www.inreview.com/archive/topic/17594.html>

**Application Domain:**

Personal Care Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☐ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Household Robot

**Hobot**

Company: **e.zicom**

Research Project:

Target Group: **general public**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.e-zicom.com/>

Country: **FR**

Year: **2013**

est. Price: **400 €**

**Description:**

Multi-Surface Cleaning Robot

"Single-side surface cleaning

- No restrictions on surface thickness
- Powerful processors with AI-technology
- Embedded UPS for safety
- Convenient and ECO-friendly"



<http://www.e-zicom.com/ezistore/e-ziclean-entretien-de-la-maison/robot-laveur-vitre-eziclean-windoro.html>

**Application Domain:**

Haushaltstätigkeiten

Cleaning

Housekeeping Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

## Hybrid Assistive Limb

Company: **Cyberdyne**

Research Project:

Target Group: **older adults**

Technology Readiness: **10-Commercial**

Reference Link: [http://www.cyberdyne.jp/english/products/LowerLimb\\_medical.html](http://www.cyberdyne.jp/english/products/LowerLimb_medical.html)

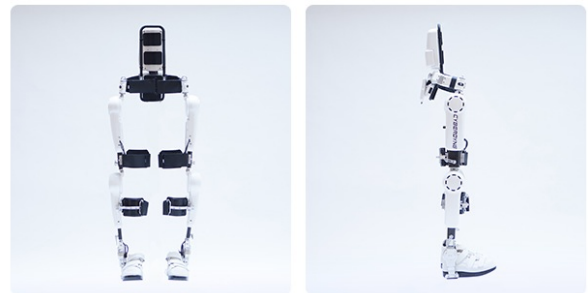
Country: **JP**

Year: **2011**

est. Price: **2000 USD / Month**

### Description:

Exoskeleton for the lower body, designed to support people who have disorders in the lower limb and people whose legs are weakening. Picks up nerve signals to support movement.



[http://www.cyberdyne.jp/english/products/LowerLimb\\_medical.html](http://www.cyberdyne.jp/english/products/LowerLimb_medical.html)

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Entertainment Robot

ifbot

Company: Business Design Laboratory Co

Country: JP

Research Project:

Year: 2008

Target Group: older adults

est. Price: 6000 €

Technology Readiness: 10-Commercial

Reference Link: <http://www.plasticpals.com/?p=1409>

### Description:

ifbot is a robot that comes equipped with a camera, speakers, sound-direction recognition microphone, voice recognition and locomotion. About 45cm tall, 10kg.



<http://shewalkssoftly.com/2008/10/04/ifbot/>

### Application Domain:

Entertainment  
Cognitive / Emotional Support  
Communication & Social Support  
Monitoring of Health, Security or Safety

### AAL Robot Features:

- ☐ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

**JIBO**

Company: **Jibo, Inc.**

Research Project:

Target Group: **general public**

Technology Readiness: **10-Commercial**

Reference Link: <https://www.jibo.com>

Country: **US**

Year: **2015**

est. Price: **749 USD**

**Description:**

JIBO is a little pod with a motorized swivel, equipped with cameras, microphones and a display. It recognizes faces and voices, and can act as a personal assistant by setting reminders, delivering messages and offering to take group photos. It also serves as a telepresence robot for video chat.



<http://time.com/2994153/jibo-robot/>

**Application Domain:**

Cognitive / Emotional Support  
Communication & Social Support  
Entertainment

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Emotional Robot

**JustoCat**

Company: **Robyn Robotics AB**

Country: **SE**

Research Project:

Year: **2014**

Target Group: **older adults**

est. Price: **1299 €**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.justocat.de/index.php/produkt/funktion-und-eigenschaften>

**Description:**

Alternative to the PARO seal robot. Was developed to support older users with dementia inside of care institutions and at homes.

Simulates breathing, purring, meowing. Senses petting or harassing and reacts upon it.



<http://www.robynrobotics.se>

**Application Domain:**

Cognitive / Emotional Support

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

**Kompai**

Company:	<b>Robosoft</b>	Country:	<b>HU</b>
Research Project:	<b>DOMEO</b>	Year:	<b>2010</b>
Target Group:	<b>older adults</b>	est. Price:	<b>unknown</b>
Technology Readiness:	<b>7-System prototype demonstration in an operational environment</b>		
Reference Link:	<b><a href="http://www.robosoft.com/robotic-solutions/healthcare/kompai/index.html">http://www.robosoft.com/robotic-solutions/healthcare/kompai/index.html</a></b>		

**Description:**

DOMEO was a research project in the area of "Ambient Assisted Living", partly funded by the EU and by national funds. DOMEO aimed at the demonstration of the use of robots for providing support in the home of old people.

**DOMEO:**

- \* Showed the relevance and efficiency of an evolutionary integration platform
- \* Found out the needs in robotics, sensors and 24/7 communication services for the elderly
- \* Evaluated the deployment of the proposed systems in realistic environments



<http://www.aal-domeo.org/index.php/robots>

**Application Domain:**

Gesundheits-/Sicherheitsmonitoring  
soziale Unterstützung, Kommunikation  
Monitoring of Health Security or Safety  
Communication & Social Support  
Cognitive / Emotional Support  
Personal Care Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

## Liftkar PT S

Company: **Sano**

Research Project:

Target Group: **older adults**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.sano-stairclimbers.com/en/liftkar-pt>

Country: **AT**

Year: **2011**

est. Price: **about 5600€**

### Description:

The LIFTKAR PT S features advanced stairclimbing technology and can handle any challenge. The 130 model is designed for people up to 130 kg while the 160 is for people up to 160 kg. The soft upholstered and ergonomically-shaped seat guarantees a comfortable ride. 10, 14 or 18 stairs per minute



<http://www.sano-stairclimbers.com/en/liftkar-pt>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Rehabilitation Robot

**Lokomat**

Company: **Hocoma**

Research Project:

Target Group: **impaired people**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.hocoma.com/de/produkte/lokomat/>

Country: **CH**

Year: **2007**

est. Price: **approx.  
200000 €**

**Description:**

The Lokomat is a gait therapy device on a treadmill with a robotic gait orthosis, and exercises in a virtual reality environment with a constant audio and visual feedback



[http://www.sms.hest.ethz.ch/research/gait\\_rehab](http://www.sms.hest.ethz.ch/research/gait_rehab)

**Application Domain:**

Rehabilitation Support

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

## Looj 330

Company: **iRobot**

Country: **US**

Research Project:

Year: **2013**

Target Group: **general public**

est. Price: **300 USD**

Technology Readiness: **10-Commercial**

Reference Link: <http://store.irobot.com/irobot-looj-330>

### Description:

The iRobot Looj 330 Gutter Cleaning Robot blasts away leaves, dirt and clogs while brushing gutters clean. Featuring a high-velocity, four-stage auger and CLEAN mode, Looj travels down your gutter on its own, sensing and adapting to debris in order to provide the most effective cleaning.



<http://store.irobot.com/irobot-looj-330>

### Application Domain:

Housekeeping Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

## MOVAID

Company:	CRIM	Country:	IT
Research Project:	MOVAID	Year:	1997
Target Group:	general public	est. Price:	n.a
Technology Readiness:	6-Model or prototype demonstration in a relevant environment		
Reference Link:	<a href="https://www-crim.sssup.it/research/projects/MOVAID/default.htm">https://www-crim.sssup.it/research/projects/MOVAID/default.htm</a>		

### Description:

The MOVAID system consists of a number of fixed workstations (PCs), located where main activities are carried out at home, such as the kitchen and the bedroom, along with a mobile robotic unit able to navigate in the house avoiding unexpected obstacles, to grasp and manipulate common objects and to dock to the fixed workstations for data exchange and power supply.



<https://www-crim.sssup.it/research/projects/MOVAID/default.htm>

### Application Domain:

Haushaltstätigkeiten  
Housekeeping Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Emotional Robot

## Nabaztag / Karotz

Company:	Violet / Mindscape	Country:	FR
Research Project:	SERA	Year:	2007
Target Group:	general public	est. Price:	150 USD
Technology Readiness:	10-Commercial		
Reference Link:	<a href="http://en.wikipedia.org/wiki/Nabaztag">http://en.wikipedia.org/wiki/Nabaztag</a>		

### Description:

Robotic rabbit with Wi-Fi access.  
Tells the time and has interfaces to a variety of web-services (reads emails and RSS news feeds, reports on air quality or traffic (in Paris), plays mp3s and gives the weather forecast).

Discontinued.



<http://en.wikipedia.org/wiki/Nabaztag>

### Application Domain:

Entertainment  
Communication & Social Support

### AAL Robot Features:

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

NAO

Company:	Aldebaran	Country:	FR
Research Project:	KSERA, ...	Year:	2006
Target Group:	older adults	est. Price:	5500 €
Technology Readiness:	7-System prototype demonstration in an operational environment		
Reference Link:	<a href="https://www.aldebaran.com/en">https://www.aldebaran.com/en</a>		

**Description:**

Assistive Robot based on the Platform NAO from Aldebaran. Several research projects built upon this robot to develop application scenarios to serve older users at home.



<http://ksera.ieis.tue.nl>

**Application Domain:**

kognitive/emotionale Unterstützung  
soziale Unterstützung, Kommunikation  
Cognitive / Emotional Support  
Communication & Social Support  
Entertainment  
Monitoring of Health Security or Safety  
Rehabilitation Support  
Monitoring of Health, Security or Safety

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Personal Care Robot

## Nature's Call

Company:	Country: n.a.
Research Project:	Year: 2011
Target Group: older adults	est. Price: n.a
Technology Readiness: 2-Technology concept and/or application formulated	
Reference Link: <a href="http://lovettoilets.blogspot.co.at/2011/04/robotic-toilet-maintains-personal.html">http://lovettoilets.blogspot.co.at/2011/04/robotic-toilet-maintains-personal.html</a>	

### Description:

mobile robotic toilet;  
precondition for use: person has to be able  
to rise from bed  
state of development & company unknown.



<http://lovettoilets.blogspot.co.at/2011/04/robotic-toilet-maintains-personal.html>

### Application Domain:

Physische Unterstützung  
Personal Care Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Emotional Robot

NeCoRo

Company: **Omron**

Research Project:

Target Group: **older adults**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.machinebrain.com/articles/omroncat101601.html>

Country: **JP**

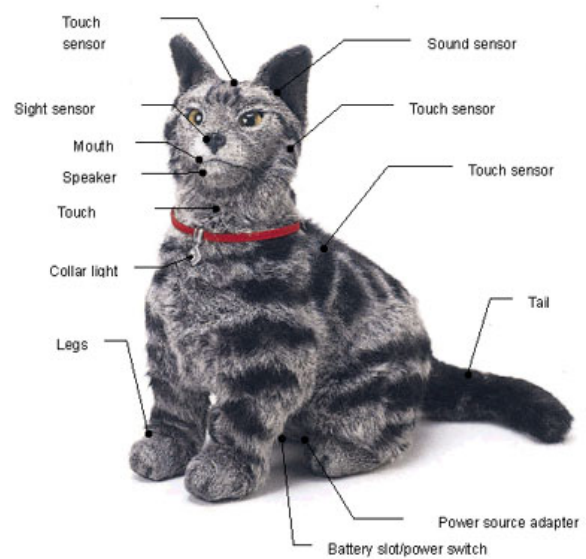
Year: **2001**

est. Price: **approx 1500€**

**Description:**

Robotic Cat

Moves eyes, tail, ears, purrs, miaows,  
reacts on touches and pet strokes  
recognizes owners voice and own name.  
Simulates emotions



[www.megadroid.com](http://www.megadroid.com)

**Application Domain:**

kognitive/emotionale Unterstützung  
Cognitive / Emotional Support

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

## Nursing-Care System

Company:	Country: n.a.
Research Project:	Year: unknown
Target Group: older adults	est. Price: n.a.
Technology Readiness: 3-Analytical and experimental critical function and/or characteristic	
Reference Link: Yukawa et. al. 2012	

### Description:

a normal wheelchair  
- transforms into bed  
- is combined with a lift for bathing  
- houses a mobile toilet robot under the seat



Yukawa et. al. 2012

### Application Domain:

Mobility Support  
Personal Care Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes



Type: Fetch & Carry Support

## oRo Platform

Company:	Country: IT
Research Project: Robot-ERA	Year: 2014
Target Group: older adults	est. Price: n.a
Technology Readiness: 6-Model or prototype demonstration in a relevant environment	
Reference Link: <a href="http://www.robot-era.eu/robotera/">http://www.robot-era.eu/robotera/</a>	

### Description:

carrier robot for outdoor usage



<http://www.robot-era.eu/robotera/>

### Application Domain:

Fetch & Carry  
Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Emotional Robot

## Paro

Company: **AIST**

Research Project:

Target Group: **older adults**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.parorobots.com>

Country: **JP**

Year: **2001**

est. Price: **5000 USD**

### Description:

This robotic system in the shape of a baby seal is used as a variant of pet-therapy in institutional care of older adults with dementia. Caretakers facilitate the system to interact with their clients. The main benefits of the system were studied to be an influence on the emotional regulation of patients and enhanced social interaction.



<http://www.japantrendshop.com/DE-paro-roboter-therapie-robbe-p-144.html>

### Application Domain:

kognitive/emotionale Unterstützung  
Cognitive / Emotional Support

### AAL Robot Features:

- ☐ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

**Pearl**

Company:	CMU	Country:	US
Research Project:		Year:	2002
Target Group:	older adults	est. Price:	unknown
Technology Readiness:	3-Analytical and experimental critical function and/or characteristic		
Reference Link:	<a href="https://www.ri.cmu.edu/research_project_detail.html?project_id=347&amp;menu_id=261">https://www.ri.cmu.edu/research_project_detail.html?project_id=347&amp;menu_id=261</a>		

**Description:**

Designed to interact with and guide people in assisted living facilities.



[http://www.cmu.edu/PR/releases05/051212\\_aging.html](http://www.cmu.edu/PR/releases05/051212_aging.html)

**Application Domain:**

Cognitive / Emotional Support  
Communication & Social Support  
Fetch & Carry

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Emotional Robot

**Primo Puel**

Company:	unknown	Country:	JP
Research Project:		Year:	2000
Target Group:	general public	est. Price:	70 €
Technology Readiness:	10-Commercial		
Reference Link:	<a href="http://news.bbc.co.uk/2/hi/programmes/this_world/golden_years/4436633.stm">http://news.bbc.co.uk/2/hi/programmes/this_world/golden_years/4436633.stm</a>		

**Description:**

interactive doll that talks, giggles and asks for hugs.



[http://news.bbc.co.uk/2/hi/programmes/this\\_world/golden\\_years/4436633.stm](http://news.bbc.co.uk/2/hi/programmes/this_world/golden_years/4436633.stm)

**Application Domain:**

Cognitive / Emotional Support  
Entertainment

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☐ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Robotic Mobility Aid

**Resyone**

Company: **Panasonic**

Country: **JP**

Research Project:

Year: **2014**

Target Group: **older adults**

est. Price: **8400 €**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.gizmag.com/panasonic-resyone-robot-bed-wheelchair-iso13482/31656/>

**Description:**

a patient bed that splits in two parts: one part can detach and transform into a wheelchair. No information found whether the wheelchair is robotic when moving. From the description it is not clear what exactly is "robotic" about the bed, because it seems to be controlled by a nurse/caregiver



<http://www.gizmag.com/panasonic-resyone-robot-bed-wheelchair-iso13482/31656/pictures#1>

**Application Domain:**

Mobilität  
Physische Unterstützung  
Mobility Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Robotic Mobility Aid

**ReWalk**

Company: **ReWalk Robotics**

Research Project:

Target Group: **impaired people**

Technology Readiness: **10-Commercial**

Reference Link: **rewalk.com**

Country: **US**

Year: **2014**

est. Price: **USD 69500**

**Description:**

ReWalk is a wearable robotic exoskeleton that provides powered hip and knee motion to enable individuals with spinal cord injury (SCI) to stand upright, walk, turn, and climb and descend stairs\*. ReWalk is the only FDA cleared exoskeleton for rehabilitation and personal use in the United States.

\*Stair function not currently available in US



<http://rewalk.com/rewalk-personal/>

**Application Domain:**

Mobility Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

**RI-MAN**

Company: **Riken Bio-Mimetic Control Center**

Country: **JP**

Research Project:

Year: **2008**

Target Group: **care staff**

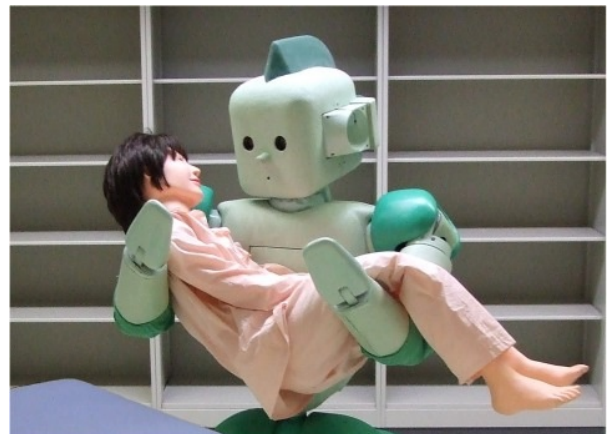
est. Price: **unknown**

Technology Readiness: **6-Model or prototype demonstration in a relevant environment**

Reference Link: [http://rtc.nagoya.riken.jp/RI-MAN/index\\_us.html](http://rtc.nagoya.riken.jp/RI-MAN/index_us.html)

**Description:**

Platform to support lifting of patients in a hospital or at home



[http://rtc.nagoya.riken.jp/RI-MAN/index\\_us.html](http://rtc.nagoya.riken.jp/RI-MAN/index_us.html)

**Application Domain:**

Physische Unterstützung  
Fetch & Carry  
Mobility Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Robotic Mobility Aid

**ROBEAR**

Company: **RIKEN**

Country: **JP**

Research Project:

Year: **2014**

Target Group: **care staff**

est. Price: **n.a**

Technology Readiness: **4-Component and/or bread-board validation in laboratory**

Reference Link: [http://www.riken.jp/en/pr/press/2015/20150223\\_2/](http://www.riken.jp/en/pr/press/2015/20150223_2/)

**Description:**

Successor of RIBAll, the main target group is care staff, secondary users are older people although it is not immediately clear which benefit they would have from such a system. It is used to transport patients inside care facilities from bed to toilet / wheelchair etc.



[www.riken.jp/en](http://www.riken.jp/en)

**Application Domain:**

Fetch & Carry  
Mobility Support

**AAL Robot Features:**

- ☐ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Robotic Mobility Aid

## Robotic Wheelchair

Company: **Chiba Tech**

Country: **JP**

Research Project:

Year: **2012**

Target Group: **impaired people**

est. Price: **unknown**

Technology Readiness: **3-Analytical and experimental critical function and/or characteristic**

Reference Link: <http://www.gizmag.com/chiba-robot-wheelchair/24584/>

### Description:

robotic wheelchair that is able to climb steps to enhance the mobility of the user



<http://www.gizmag.com/chiba-robot-wheelchair/24584/>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Telepresence Robot

## RP-VITA

Company: InTouchHealth

Country: US

Research Project:

Year: unknown

Target Group: care staff

est. Price: yet unclear

Technology Readiness: 9-Actual system proven through successful mission operations

Reference Link: <http://www.irobot.com/For-Business/RP-VITA.aspx>

### Description:

A remote presence robot for doctors who can virtually visit patients at their bedside. The system has been piloted in a number of hospitals in Europe, Canada and US and reached FDA-clearance.



<http://www.intouchhealth.com>

### Application Domain:

soziale Unterstützung, Kommunikation  
Communication & Social Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Rehabilitation Robot

## Rufus Running Companion

Company: **runfun GmbH**

Country: **GER**

Research Project:

Year: **2014**

Target Group: **general public**

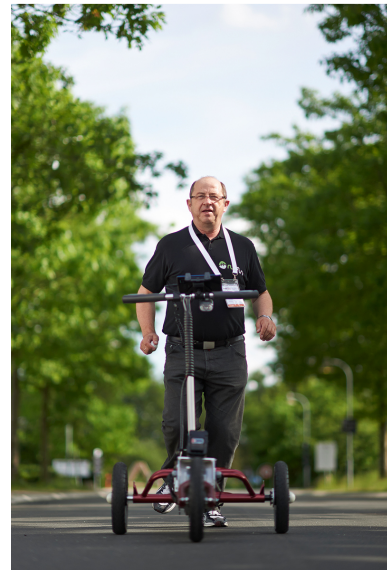
est. Price: **unknown**

Technology Readiness: **9-Actual system proven through successful mission operations**

Reference Link: **<http://www.blue-ocean-robotics.com/en/robots/healthcare/rufus-running-companion>**

### Description:

RUFUS is a robotic device developed to support runners. It is an electrically driven vehicle with an automatic cruise control. RUFUS Basic is your personal running coach and RUFUS Pro is your professional coaching assistant.



<http://www.blue-ocean-robotics.com/en/robots/healthcare/rufus-running-companion>

### Application Domain:

Rehabilitation Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

## RYDIS H68 PRO

Company: **Moneual**

Research Project:

Target Group: **general public**

Technology Readiness: **10-Commercial**

Reference Link: <http://moneualusa.com>

Country: **US**

Year: **2014**

est. Price: **379USD**

### Description:

Vacuum cleaning robot that also mops the floor.



<http://moneualusa.com>

### Application Domain:

Housekeeping Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

**Scooba**

Company: **iRobot**

Country: **US**

Research Project:

Year: **2006**

Target Group: **general public**

est. Price: **300-500€**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.irobot.at/Shop/Robots/Scooba-450>

**Description:**

floor cleaning robot



<http://www.irobot.at/Shop/Robots/Scooba-450>

**Application Domain:**

Haushaltstätigkeiten  
Cleaning  
Housekeeping Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Robotic Mobility Aid

## Stairmax Selbstfahrer

Company: **Lehner-Lifttechnik**

Research Project:

Target Group: **impaired people**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.lehner-lifttechnik.at/de/products/Standard>

Country: **AT**

Year: **2007**

est. Price: **2300 €**

### Description:

System that supports stairclimbing, also for individuals on their own. The wheelchair is attached to a battery driven crawler type undercarriage.



<http://www.liftunion.de/treppenlifte-treppenraupen/treppenraupen-stairmax.html>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Robotic Mobility Aid

## Stairwalker

Company: **ThyssenKrupp**

Country: **GER**

Research Project:

Year: **2013**

Target Group: **older adults**

est. Price: **unknown**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.thyssenkrupp-access-solutions.com/solutions/stairwalker/>

### Description:

The StairWalker provides support in the user's back for going upstairs or in front to lean on while going down. It is a daily exercise to keep the user fit and independent. The product was discontinued in 2014.



<http://www.thyssenkrupp-access-solutions.com>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☐ motion in two or more axes

Type: Robotic Mobility Aid

## TEK RMD Robotic

Company: **Matia**

Research Project:

Target Group: **impaired people**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.matiarobotics.com>

Country: **TR**

Year: **2012**

est. Price: **18000 USD**

### Description:

Scooter-like mobility aid, supports standing up and sitting down, moving around in standing position, for indoor use only.



<http://www.matiarobotics.com>

### Application Domain:

Mobility Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes



Type: Robotic Mobility Aid

(unknown)

Company: **Panasonic**

Country: **JP**

Research Project:

Year: **2014**

Target Group: **older adults**

est. Price: **estimated to be below 1m**

Technology Readiness: **7-System prototype demonstration in an operational environment**

Reference Link: <http://ajw.asahi.com/article/business/AJ201409250035>

**Description:**

Users of Panasonic's new device will wear a special vest-like sling that attaches to the robot's arm. The arm moves in coordination with the user's physical movements to aid such motions as standing and sitting. To move about, the user places their arms on a handle-like support device that helps them guide the robot.



<http://ajw.asahi.com/article/business/AJ201409250035>

**Application Domain:**

Mobility Support

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☐ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Household Robot

## Vortex OV 3300

Company: **Zodiac Pool Care**

Research Project:

Target Group: **general public**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.zodiac-poolcare.co.uk>

Country: **FR**

Year: **2015**

est. Price: **866 €**

### Description:

Pool cleaning system that operates autonomously and cleans the whole pool including the walls.



[http://www.myrobotcenter.at/de\\_at/rasen-und-poolroboter/poolroboter/zodiac-ov3300](http://www.myrobotcenter.at/de_at/rasen-und-poolroboter/poolroboter/zodiac-ov3300)

### Application Domain:

Housekeeping Support

### AAL Robot Features:

- ☒ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☒ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Entertainment Robot

## WheeMe 2.0

Company: **DreamBots**

Country: **US**

Research Project:

Year: **2014**

Target Group: **general public**

est. Price: **80 €**

Technology Readiness: **10-Commercial**

Reference Link: <http://www.wheeme.com>

### Description:

#### Massage and Relaxation Robot

WheeMe is a palm-sized robot that gently massages and caresses as it moves slowly across your body. Using unique sensor technology, WheeMe automatically steers itself over your body with very little chance of falling off or losing its grip. As it moves, WheeMe's four small wheels and the rotor finger gently press and caress providing a delightful sense of relaxation and calm.



[http://www.myrobotcenter.at/de\\_at/gadgets/massageroboter/dreambots-wheeme-v2-0#reviews-section](http://www.myrobotcenter.at/de_at/gadgets/massageroboter/dreambots-wheeme-v2-0#reviews-section)

### Application Domain:

Entertainment

### AAL Robot Features:

- ☐ assists activities of daily living/working
- ☐ specific design for older adults
- ☐ no specific design, but seems usable by seniors
- ☐ improves/maintains independent living
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes

Type: Companion Robot

**Zora**

Company: **QBMT**

Research Project:

Target Group: **care staff**

Technology Readiness: **10-Commercial**

Reference Link: <http://zorarobotics.be>

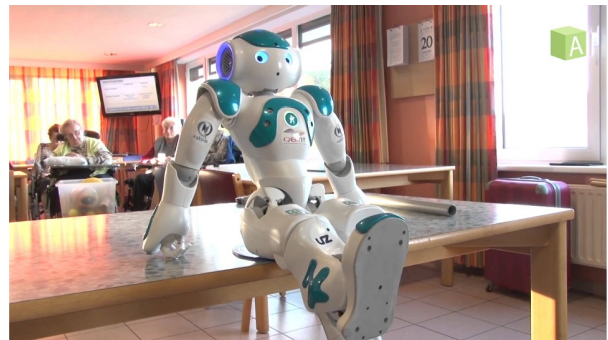
Country: **BE**

Year: **2014**

est. Price: **15000 €**

**Description:**

Zora is a software solution on the mobile humanoid platform Nao, that supports older users at residential facilities and patients in hospitals. Zora's services include reminders, motivation and guidance for physical training and communication.



<http://www.emerce.nl/wire/zorgrobot-zora-gaat-kunst-maken-kunstenaar-pim-smit>

**Application Domain:**

Cognitive / Emotional Support  
Communication & Social Support  
Entertainment

**AAL Robot Features:**

- ☒ assists activities of daily living/working
- ☒ specific design for older adults
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- ☐ improves/maintains independent living
  
- ☒ is capable of visible motion
- ☒ has sensors and actuators
- ☒ makes sensor/knowledge-based decisions
- ☒ motion in two or more axes