

Robot glove grabbed Robotdalen Innovation Award

A lot of people need extra strength to grab things in their everyday life, like the coffee pot or a drill. This is due to things like age, repetitive strain injuries or medical conditions such as stroke or arthritis. The Swedish company Bioservo Technologies has developed the SEM Glove (Soft Extra Muscle), that adds extra power to the grip, through force sensitive sensors and robotics technology. The SEM Glove is the winner of the Robotdalen Innovation Award 2012 and will receive support from Robotdalen for further product development and commercialization.

Bioservo Technologies was founded by researchers from the Karolinska Institute and the Royal Institute of Technology in Stockholm, Sweden. They combine their experiences about human needs, with modern robot technology knowledge, to create innovative products that strengthen the body. The jury sees the SEM Glove as an excellent example of a user-friendly, adaptive robotic assistance. They also assess that the prototype is ready for serial production with great opportunities to reach a global market.

- The Robotdalen Innovation Award aims at giving the winners an opportunity to further develop their commercially valid robotics solutions, says Lennart Karlsson, Internationalization Manager at Robotdalen. The winners were selected among 24 contributions from 12 countries.



Further development with the support of Robotdalen

The winner receives €6,000 as well as an additional €6000 for further development of the product in co-operation with Robotdalen. The same goes for the 2nd prize, except the amount is €4000 + €4000, while the winner of the third prize receives a lump sum of €1,000. The 2nd prize in the Robotdalen Innovation Award 2012 went to Mohammad Reza Ghahremani from the University of Science and Technology in Iran and third prize to qrobotics, a R & D robot company in Pisa, Italy. The jury consisted of Danica Kragic Jensfelt, Professor of Computer Science at the Swedish KTH Royal Institute of Technology, Christer Rameback, Industrial Systems Business Area Manager at the company Prevas and Jacob Vierø, Director for Sales & Marketing at the robot company KUKA Nordic AB. Please see the jury's statements in the appendix.

For further information please contact:

Lennart Karlsson, Internationalization Manager, phone + 46 (0)72-200 91 95, e-mail lennart.karlsson@robotdalen.se
Peter Stany, Innovation Driver, phone +46 (0)70 934 93 02, e-mail innovation@robotdalen.se

Robotdalen is a Swedish robotics initiative with the mission to enable commercial success of new ideas and research within robotics & automation

Robotdalen is part of and mainly financed by VINNOVAS programme VINNVÄXT



Robotdalen is partially financed by

Investing in your future



Appendix 1 – Robotdalen Innovation Award 2012

The jury's statements for the winners:

Winner 2012 - Bioservo Technologies, Sweden

The SEM Glove (Soft Extra Muscle), a glove that adds extra power to the grip, through force sensitive sensors and robotics technology.

The jury's statement:

Bioservo Technologies develops and commercializes the concept of the SEM-Glove - an easy wearable textile device that adaptively adds robotic assistance to gripping strength through tendons and actuators. The jury agrees that the global market size is considerable in both main areas of the glove's intended use. The application shows a clearly pronounced vision, and the long term buy-out strategy is described in short yet relevant terms. Judging the technology- and business plans, this product is ready for high volume production hence finding relevant production costs for a feasible user price. The business plan defines the required bridge financing from well proven prototype to serial product. The jury finds the SEM glove to be an excellent example of non-invasive adaptive robot assistance under permanent and uncomplicated user control finding its roots in the simplicity of Sir Isaac Newton's discoveries.

2nd prize - Mohammad Reza Ghahremani, Iran

The jury's statement:

The "Non-electric Robot for Inspection & Rehabilitation Hazardous Installation" is solving a very concrete problem for petroleum related industries. The key feature of this robot is that it is eliminating the danger of gas explosions, since it has no electric devices in its structure and all the applied mechanisms are fully pneumatic. It is energized by a nitrogen pumping system and required light and pictures for inspection are transferred via optical cables. The jury finds the innovation to be a concrete solution to a real problem, and the business plan is well articulated with a clear target market.

3rd prize – qbrobotics, Italy

The jury's statement:

qbrobotics is a company producing Natural Motion™ actuators. The actuators can generate movements similar to those of humans - the behavior of the actuators can be soft or rigid. This is a technological innovation compared to the traditional actuators which are mainly rigid. Such actuators can support fostering of the next generation of robots that are expected to work in close collaboration with humans and to some extent emulate human behavior. The jury finds the business plan to be detailed and extensive - the company has both a short and a long term commercialization plan. Its mission is clear and viable - the product shaves a big market potential and can stand a serious competition.

Robotdalen is a Swedish robotics initiative with the mission to enable commercial success of new ideas and research within robotics & automation

Robotdalen is part of and mainly financed by VINNOVAS programme VINNVÄXT



Robotdalen is partially financed by

Investing in your future

