



Latest News

January 20, 2016

A brand-new product manufactured out of demands in medical settings: newly developed “foot-operated mouse” plays a big role for interventional radiology

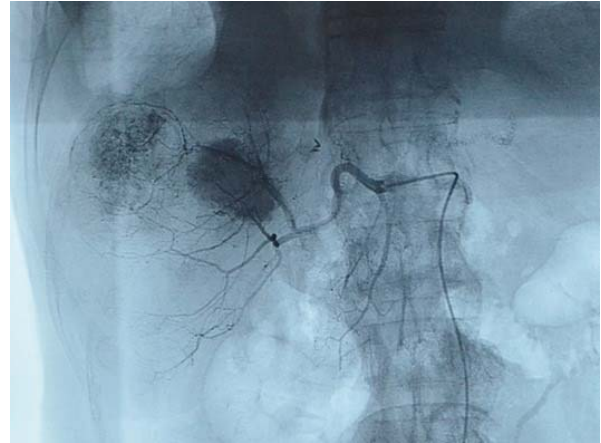
At the Shizuoka Cancer Center, collaborated researches among doctors, nurses and manufacturing companies have been widely done through the Farma Valley Center for better cancer treatment than ever. They exchange ideas about new medical equipment and items for medical care which doctors and nurses wish to use, and the manufacturers develop products based on them. Those products are brought back to the SCC, where doctors and nurses use them for daily medical practices.

The Division of IVR (Interventional Radiology) of the Shizuoka Cancer Center and Be Alive Corporation collaborated on developing a special “foot-operated mouse (foot mouse)” and came up with a trial model of it in February, 2015. During the IVR procedures, doctors handle needles and catheters to let them go through patients’ arteries and into their organs for cancer treatment. They always look closely at the monitors for CT scans and electronic medical records during the course of the procedure, while manipulating needles and catheters and making sure where they are located in arteries and organs all the while. The procedures are now recognized as essential for minimally invasive cancer treatment, as laparotomy is not required, but the doctors used to feel stressed as they had to depend on others for scrolling the images to get what they wanted. Now with this newly developed “foot-operated mouse,” they can click and scroll themselves to get the images they want instantly, even while both hands are busy with the procedures.

The “Foot Mouse” has been developed for the needs of the doctors in such medical settings, but the possibilities of applying the technology for helping people with disabilities in arms and hands or with muscle atrophy have come up. The manufacturer, Be Alive, recently upgraded the “Foot Mouse” being aided by crowd-funding for more use-friendly operation. The features of the new model are listed below.

1. The wireless interface makes it possible to use it wherever it is needed.
2. By refining the wheels, the movement of the “Foot Mouse” has been significantly reduced, and by moving the left click bottom to the middle, it has become easier to click.
3. The positions and the sizes of click bottoms are very much improved, so that the user can click and scroll by foot without looking.
4. The stainless steel body is washable and can be kept clean.

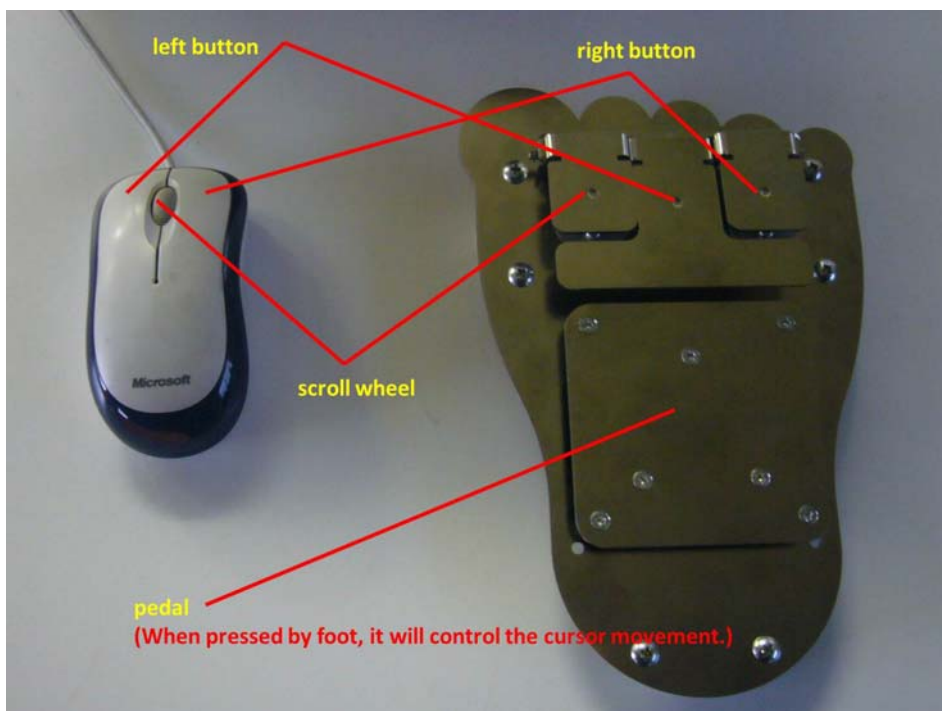
Now, it is highly expected that the “Foot Mouse” will help people with disabilities in arms and hands operate the computers, and will work as a support tool for their recovery from motor dysfunctions.



A doctor needs to look at the monitors all the while during the IVR procedures (left) and an angiographic image of a catheter going into an artery (right). As a doctor has to keep his hands free during the course of the procedure and is unable to operate the mouse for hygienic reasons, the demand for developing the “Foot Mouse” came up.

Product Profile

1. Name of the Product: Foot-operated Mouse (a.k.a. Foot Mouse)
2. Main Features:
 - i. It can be used in an operating suite (antifouling and waterproof).
 - ii. No special drivers are needed. It can be connected to any computers with standard drivers for computers which accompany with medical equipment.
 - iii. It can be operated with one foot (the toes and the back of the foot) only.
 - iv. Wireless interface.
 - v. It has exactly the same functions (left click, right click and scroll) as a regular computer mouse.
 - vi. With the keyboard screen, which is a standard feature of all the computers nowadays, keyboard input can be done by foot.
3. Distributor: Be Alive Corporation



Collation of functions of a regular computer mouse (left) and foot-operated mouse (Foot Mouse) (right)

Profiles

Shizuoka Cancer Center

A medical institution specialized in cancer treatment since September, 2002. It has been known for providing highly advanced medical care including the proton therapy and the da Vinci Robotic Surgical System. It has been authorized as a special functioning hospital since April, 2013. The current capacity of hospital beds counts 611 including 50 in the Palliative Care Unit. It aims at the medical care focusing on patients' perspectives, providing holistic medicine which covers from the most advanced and cutting-edge medical treatment to patient's mental healthcare. It has been actively recruiting ideas about medical equipment and health care supplies from the medical staff, and been promoting collaborated research projects with manufacturing companies through the Farma Valley Center to have the new products marketed for use at the medical front line.

Farma Valley Center

A prefectural government-backed up institution since April, 2003, built solely for promoting the Farma Valley Project which integrates research projects among medical institutions and medical or healthcare industries in the eastern Shizuoka. It promotes research projects focused on 1) building the base of citizens' health, 2) fabricating useful items, 3) cultivating human resources and 4) developing local communities. In the field of fabricating useful items, the Farma Valley Center is always willing to support development of new products by local companies, research collaborations among local medical institutions and companies, and product-development out of ideas coming up from clinical sites, which will meet the "bedside needs" of patients as well as medical staff.

Be Alive Corporation

Since the establishment in 2008, Be Alive has been a machinery manufacturer in various fields including robotic technologies and production line systems covering from food production to automobile component production, adopting the 3D CAD and the unique networks for machinery designing and development. It has participated in the Farma Valley Project as a manufacturer for developing medical equipment and devices.

For more information, please contact:
Public Relations, Management Center, Shizuoka Cancer Center
1007 Shimonagakubo, Nagaizumi-cho, Sunto-gun, Shizuoka Pref, 411-8777
Tel. 055-989-5222
Email: info@scchr.jp