Winter 2007

ABILITY Technology

Ability Newsletter

Product and Service News

VoiceMe 4

Low cost voice-controlled ECU

The original VoiceMe promised voice control of infrared commands (for TV, video, music, etc) at low cost. It partly succeeded. It has changed the lives of some, but brought frustration to others.

The VoiceMe 4 (called such because it supports up to 4 users) is a further development of the original product. How is it different? One significant difference is that the new model can be controlled by 4 x AA batteries as well as by mains power. This gives the VoiceMe 4 the advantage of portability. It also has some manual controls available, for volume and channel selection, through an "extender handset". One command on the VoiceMe 4 can activate up to 10 operations simultaneously.

In other respects it retains what was good about the original model. It is easy to train and setup; it has 30 commands per user (although the 4 "users" could be extra banks of commands); delays can be inserted between signals; automatic muting of other devices when commands are given; good IR output range and light weight (218g).

The price of the new unit, due in August, is likely to be just under $400. We will be getting one of the first units for testing - we'll report back on how it goes.

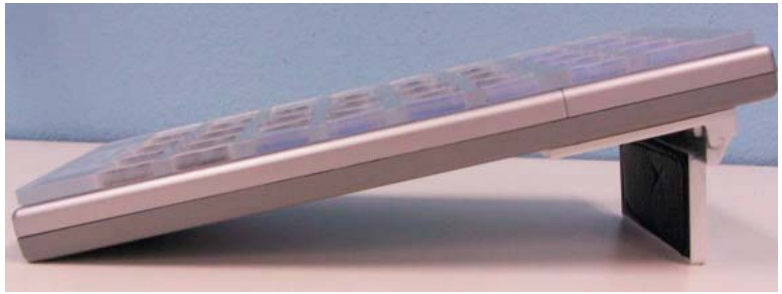
ECU Options

Radical Remote

This large button remote comes from RJ Cooper in the USA. It is designed to be used from a tray, lap, the floor or table - it is too big to be carried around. It claims to have a powerful infrared output capacity so that it doesn't have to be pointed directly at the device being controlled.

It comes with built-in codes for "almost all makes/models of entertainment devices" and "it's super-easy to program". This seems to indicate that it is not trainable from existing remotes, which means you won't know for sure if it will work on your devices.

It is 5" x 11" in size and comes with a key guard. It costs US$99.



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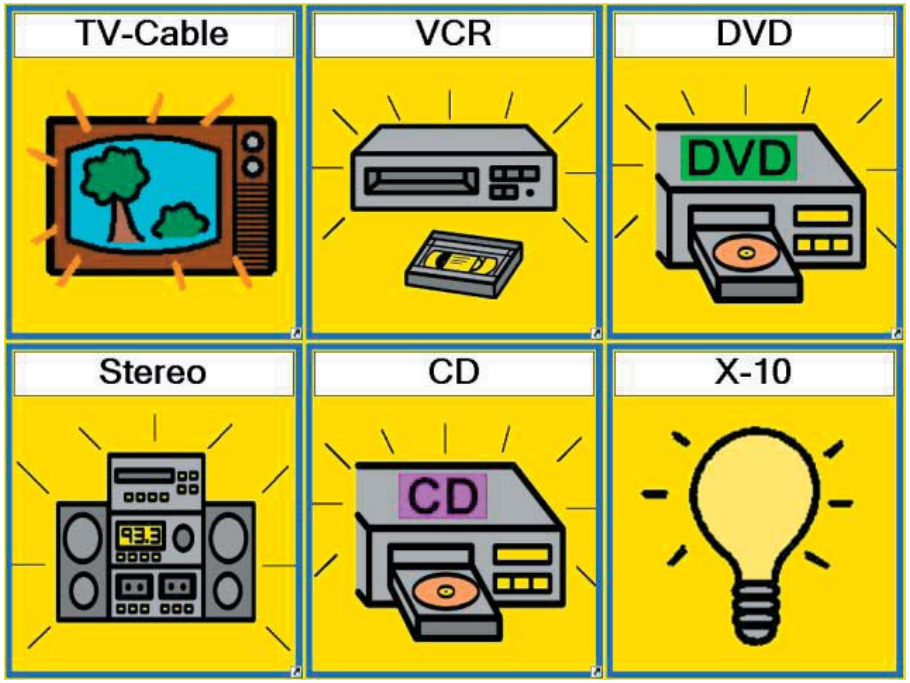
ECU Options

EADL Package from RJ Cooper

This is similar in concept to the GEWA Progress Star. It is a package that includes software (called "PTP-PC for EADL") and a USB-Infrared cable. The setup requirements are unknown at this stage, although a preview version can be downloaded at http://www.rjcooper.com/eadl-package/index.html.

Scanning is built in and the device can be trained from existing remotes.

The cost is US$249.



EADL stands for "Electronic Aids for Daily Living", which is a catchy (not) phrase for environmental control technology (itself a misleading term).

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Computer Access

Mini Trackball

This looks very much like the Rocket Mouse, which appeared a few years back. The Mini Trackball is meant to be held with your fingers and controlled by your thumb. It can be used in either the left or right hand.

There are three buttons:

One "trigger" button - for a left button click - is located inside the cutout and is designed to be operated with your index finger. Two buttons - middle and right click - are located above the trackball, and can be operated by your thumb. It is USB. The cost is $126 incl. GST.

ProTrack R60S Trackball

Based on the R60 (in last issue) the R60S has been designed especially for people with special needs and includes a keyguard, drag lock feature and switch adaptation. It has three brightly coloured buttons, a keyguard to prevent accidental button clicks, and a drag lock feature - both left and right buttons can be locked by holding the button down for 2 seconds.

The ball is backlit during use and flashes to indicate when the drag lock feature is turned on or off.

It has two switch sockets to allow two external switches to be plugged in to replace the left and right button clicks. It has threaded holes in the base to allow for attachment to mounting systems. USB or serial. The price is $360.

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Computer Access

Optimax Wireless Trackball

With the demise of the Kensington wireless trackballs, there have been few offerings in the wireless trackball category. The Optimax has an operating range in excess of 10 metres, so may be used on a desk, wheelchair tray or held by the user. It has:

* Built in keyguard to reduce unwanted button presses.

* Left, right and drag lock buttons.

* Both trackball and receiver are switch adapted so the unit can be used as a switch interface.

* High contrast colours make the ball and buttons easy to see.

* Large, free-running ball requires only very light pressure to move, and provides precise tracking and cursor control.

Cost is $480.

Ergo Trackball

This trackball features a wedge shaped base, three programmable buttons and a detachable wrist rest. It can be used with both the left and right hand. It has a USB connection and sells for $145.

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Computer Access

FOOTIME Slipper Mouse

Having problems controlling a mouse with your hands? This product may benefit you. The FOOTIME Slipper Mouse features an ergonomic layout of control pedals that are controlled by your foot. The foot pedals can define any keys or key combinations and the slipper-shaped controller provides cursor control. So you move the cursor with one foot and and press six buttons and a scroll wheel with the other.

The FOOTIME Slipper Mouse means that no stress is placed on the wrist or hand and it is beneficial for those who want to reduce usage of their upper limb when controlling a mouse. In combination with software like the Microsoft Tablet PC Input Panel it means the user can type with their foot.

The FOOTIME Slipper Mouse is USB and is compatible with both Mac and Windows. The cost is US$199.

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Feature

Mind Control

Recent press reports have documented developments in the control of technology by brain waves. One company, NeuroSky, has developed a headset with sensors that gauge people's moods by measuring brain wave emissions. Software then converts these readings into video game action. The technology is expected to be incorporated into video games by the end of the year.

Australian developers are behind another device that picks up facial expressions and emotions of users and displays them on a screen. Their company, Emotiv, received more than $1.5m from the Federal government to develop the brain computer interface helmet. It works by using 15 sensors to detect electrical activity generated by brain cells called neurons. The system apparently learns more about your emotions and intentions the more you use it.

A similar product has been developed in Germany by Guger Technologies. It has been used to compose messages on a computer and for simple games. They are also developing a thought-controlled robotic wheelchair.

Cyberkinetics Neurotechnology Systems is doing advanced work on a neural interface and claims early success with people with quadriplegia. So far, its BrainGate Neural Interface System has been used successfully by two people with quadriplegia to control a computer. The BrainGate system requires participants to have a silicon chip implanted via craniotomy in their brains.

Hitachi have also developed a brain-machine interface. It analyses slight changes in the brain's blood flow and translates brain motion into electric signals. They are reported to be developing a TV remote controller that is controlled by thinking alone. People with a disability are clearly in mind, with plans to adapt the technology for people with disabilities that rule out all other controlling options for communication, computer control and environmental control.

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Ability Activities

Ability Activities

Research

Our two major recent projects, for the Department of Education, Science and Training (DEST), and for the Department of Employment and Workplace Relations (DEWR) have now been completed successfully. We are anticipating that follow-up policy changes will flow from both projects. Further research is in the pipeline!

Staffing

We welcome **Sandra Kulhan** who is starting a work trial with us, as we farewell **Sally Argent**, who has completed a 6 weeks OT student placement with us. We are also pleased to have **Stef Duin** providing some voluntary assistance with us. **Lynda Hutchinson**, our senior OT, is moving to Adelaide in October and will be establishing an Ability base in South Australia.

Assistive Technology Forums - Bankstown, Newcastle and Wollongong 10th, 12th and 14th September

These excellent Forums will focus on assistive technology for education and employment. Ability will, as usual, be contributing workshop sessions. Get more details at: http://134.148.4.164/service/rdlo/2007assistivetechnologyforum.html

Remote Assessment Tools

We are currently testing the usefulness of 3G mobile phones and web cams in supplementing face-to-face assessments.

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