Assistive Equipment for Visually Impaired Students

By Kenneth Lam



The Hong Kong Society for the Blind 香港盲人輔導會

Ruby portable Video Magnifier

- 4.3" high resolution LCD display
- Magnification: 2x to 14x
- 5 viewing modes
- freeze frame
- folding handle
- lightweight design: 218g or 7.7oz
- rechargeable or disposable (AAA x 4 pcs.)
- 2 hours battery life





Pebble 4.3 portable video magnifier

- Adjustable magnification of 2 x to 10x
- Lightweight 7.7 ounce design
- 4.3" high resolution LCD display
- Adjustable brightness
- Easy-to-use tactile controls
- 28 available viewing modes
- Freeze Image feature with capability to magnify
- Foldable and adjustable telescopic handle with comfort grip
- Easy writing capability
- Over 2 hours battery life (2 rechargeable batteries included)







Sapphire portable video magnifier

- 7" color LCD display
- Magnifies 3.4x to 16x
- Full color plus 22 text color combinations
- 28 available viewing modes
- 4 hours continuous use rechargeable battery
- Slim 1-5/8 inches
- Weight less than 2 pounds



The PEARL Portable Reading Solution

(works together with OpenBook 9.0)

Bringing portability to scanning and reading

Customize your viewing

Lightning fast OCR

Automatic page capture

Reading all kinds of documents

Use as a video magnifier

Reformat text for easier reading

Reading





Transformer

The next generation of portable electronic magnifiers

- Magnification: 2.4 to 3.0x on 17" screen
- Weight less than 3 pounds
- Camera rotes 330°
- Reading, distance and self viewing modes
- Auto install software, plug & play
- Capture and store images
- 28 custom color select modes
- Self contained on/off LED lighting
- Battery operated up to 4 hours
- Includes soft carrying case and cloth sleeve







USB Bridge

(battery operated solution for Acrobat, Flipper, Max)

- Modular Power your Acrobat, Flipper or Max
- Split screen capability view computer & image
- Simple interface with customizable hot keys
- Flexibility to configure and re-size the display
- Snapshot function to capture & save images
- Quick change and removable battery
- 2 to 5 hours of battery life depending on product used
- Removable standard battery with internal charger
- Less than 250g (including battery)







PACMate Omni notetaker (\$11,800+)

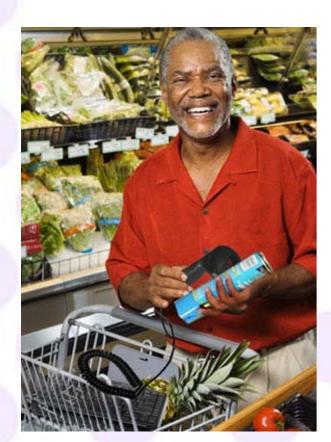
- Powered by Windows Mobile 6.1
- Pre-installed MS Word, Excel, Calendar, Outlook, Inbox, Contacts, Internet Explorer, Windows Media Player, etc.
- Detachable braille display
- Battery life of more than 20 hours
- QWERTY or braille keyboard
- 2 x Compact Flash slots







PACMate Omni notetaker



ScanTalker
Barcode Reader
(identify more than
1.2 million items)





FSTTY
Telecommunications for the Deaf-Blind

(A breakthrough in independent and portable two-way conversation)



StreetTalk VIP GPS (Navigation tool for the Visually Impaired)



PACMate Omni notetaker

Third-party Hardware:

- 56k Modem
- Ethernet Adaptor
- Bluetooth Adaptor
- WiFi Adaptor
- CF Memory
- IrDA embossing, etc.

Third-party software:

- Audible Manager (audio newspaper, magazine, ebooks.)
- AvantGo (free mobile internet channels)
- Pocket Player (audio player)
- PrintPocketCE (print Pocket Excel, Word, emails etc.)
- Resco Audio Recorder (Recording tool)
- SlovoEd Dictionary (multilingual dictionary)
- Sprite Backup (PACMate backup & restore
- Town Compass Data Viewer (.pdb portable database)





BrailleNote Apex Notetaker

- Built with Braille or Qwerty keyboard (WinCE6)
- 256MB DRAM, 8GB non-volatile user storage
- Built-in 100Mbps Ethernet, 802.11 WiFi
- Built-in Bluetooth v2.1
- 1 x SDHC socket
- 3 x USB host ports
- 1 x USB client port
- Weight: 812g (1.8lbs)
- Size: 19mm x 244mm x 143mm













Focus 40 Blue braille display (\$21,800.)

The Focus 40 Blue employs all the advanced features of the very popular Focus line of braille display. The refreshable braille cells, with seamless construction, feel like reading braille from paper.

- Support bluetooth or USB connection
- Quick movement around document with natural hand movements for greater productivity.
- WhizWheels design, let you scroll by line, sentence or paragraph, or pan through a document
- Front panel select buttons can be used in combination with panning buttons, rocker bars, and cursor router keys to copy & paste and quicker movements.
- VariBraille allows you to select the firmness of braille display





JAWS for Windows 12

- RealSpeak Solo supports Cantonese and Mandarin speech output
- Supports Cantonese braille output
- Standard edition works with Windows XP Home, Vista Home & Windows 7 Starter, Home Premium (\$6,700.)
- Professional edition works with all XP, Vista & Windows
 7 platform (\$8,500.)
- Enhancements & Improvements in support for Adobe Reader, Internet Explorer, iTunes, Microsoft Office 2010 and Windows Live Mail etc.





EmFuse Color Braille Station

Double-sided ink and braille instantly
8 different dot heights for raised graphics
Ethernet port for easy networking
holds 2,350 pages, 12 x 18 inches size
Drawers reloadable while printing
Wide range of media/paper types
400 cps ink braille, up to 200cps interpoint
20 dpi embossed braille dots









EmF**U**SE

Color Braille Station



Fast 400 CPS ink and braille documents

Braille Box V4 (single sheet fed high speed embosser)

- High speed 800 pages per hour
- Excellent braille quality
- Paper tray fitting 400 pages
- Very stable single sheet feeder
- Surprislingly low noise
- Newspaper format, one A3 folds to four A4











Next Generation Perkins Brailler









Easier to carry
Quieter
Gentle touch keys
Easy grip handle
High contrast colors





Next Generation Perkins Brailler



Colors:



AVAILABLE FROM PERKINS PRODUCTS NOW FOR SHIPMENT WITHIN THE US



AVAILABLE FROM PERKINS PRODUCTS NOW FOR SHIPMENT WITHIN THE US



Emprint SpotDot - braille and color ink embosser

- Prints braille and ink on the same page
- Formats Word and Excel documents to braille automatically
- Creates raised visual images on paper
- Includes Tiger Designer tactile graphics design software
- Twice as fast as the first Emprint model now 50 CPS
- New easy-to-use operator panel with tactile buttons
- Uses the paper & ink cartridges as an HP Inject printer
- Choice of case colors fire or ice (red or white)







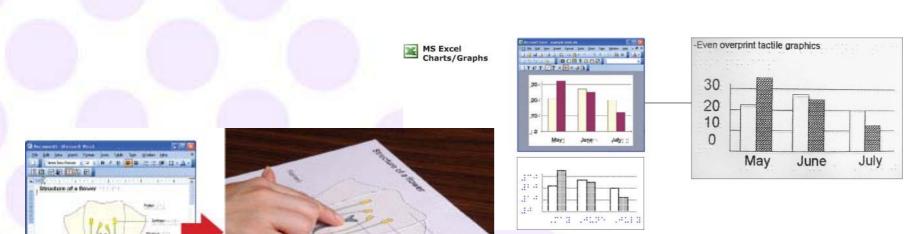




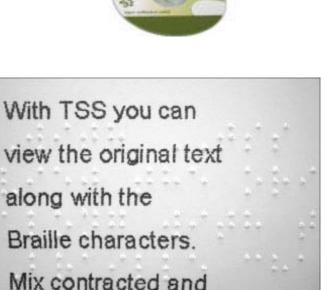
Tiger Software Suite

Your complete solution for producing braille & tactile graphics

The Tiger Software Suite 4.0 makes it easy to get accurate braille translation in seconds. Insert text and graphics within familiar programs such as Word and Excel and translate with the touch of a button. It's great for users of all skill levels!











Tiger Braille Math

Equation & Text Braille Translation

Translate text and math equations to braille with the touch of a button. The Tiger Braille Math Translator is built directly into Microsoft Word making math translation fast and easy. You can even add graphics to your braille math documents to add another level of learning.

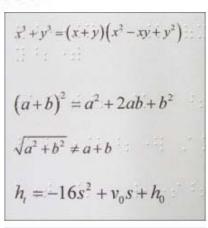
Braille Math with Tiger Software Suite - Fast and Easy Math Translation Create Braille Math in MS Word:

Insert text and math equations directly into a Microsoft Word document and translate to braille math with the touch of a button.

Equations will appear in both braille math and ink allowing sighted readers to follow along.

- · Currently outputs to Nemeth, LaTeX, UK, and French math braille codes
- Additional math codes available in 2010
- Available with Tiger Software Suite 4.0





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Microsoft Word

It Figmet I look Table Taper Window BachType Neb

The VinoFtus Taper Software

Suite (TSS) is capable of translating in any math equations to braile.

Some supported equation forms include:

x^3 + y^3 = (x + y^*)(x^2 - xy + y^2)
(a+b)^2 = a^2 + 2ab + b^2
\sqrt{a^2 + b^2} = a + b
h_t = -1.6 s^2 + v_0 s + h_0
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Print Braille & Ink on the same page



Emprint[™] Spot Dot



Learning through - Touch, Sound & Sight











IVEO Hands-on-Learning System version 2.0

Scaleable text display

- Zoom for low-vision users
- Output for braille display

Two levels of spoken information

- Add object title and description

Object to file link

- Add recorded voice and sound/music
- Connect object to web and other files

Overlay printing

- Use any Tiger embosser or Windows printer Zoom capability

- Zoom and print any view







eBook Player

EV1000 eBook Player

Functions include:

- Cantonese, Mandarin & English speech output
- eBook reader
- MP3 player
- Radio (FM, MW, SW)
- Recorder
- Support 32Mb SD card
- Mic & Earphone jack
- 2Gb on internal memory
- USB connections

Others eBook Players: HK960 & HK980









Mobile Smartphones (ScreenReader)



熊貓手機



BlackBerry Oratio



Symbian Talks & Braille, MobileSpeak





Windows Phone 7 MobileSpeak



iOS (iPhone) VoiceOver





Android Android Accessibility



Assistive Equipment for VI Students Facilities that aid VI students' daily learning

Audio Signage (multi-sensory tactile map)









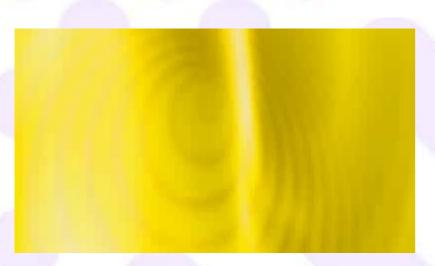


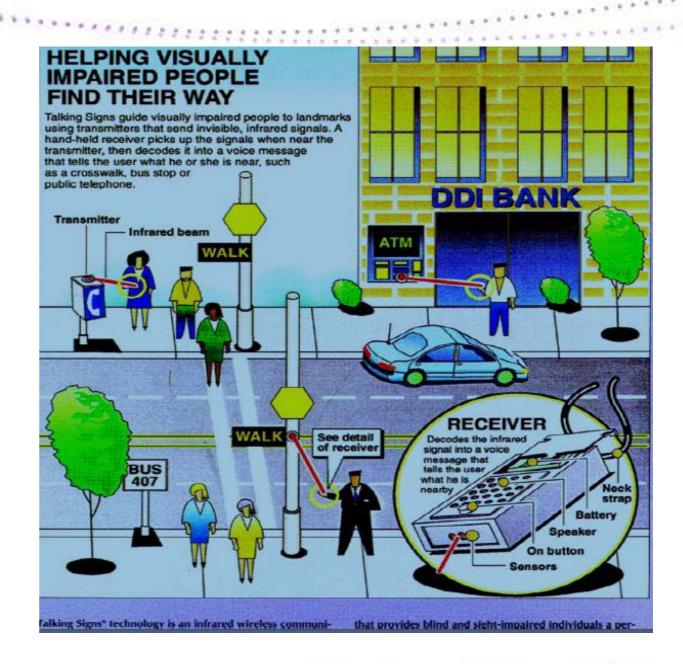
Assistive Equipment for VI Students Equipment that aid orientation and mobility

Way Finding Technology

Talking Signs :
By using Infra Red and/or radio frequency









Assistive Equipment for VI Students Trends and development

Current trends:

- CCTVs from standard reading desktop type to Reading,
 Self View, Distance View modes, 0 Value functions, etc.
- Braille devices more compact in size, with more connection ways, such as USB, bluetooth, serial, etc.
- Embossers integrated with more perpherals, added value accessories.

Future development:

- Portable devices with GPS/AGPS integrated, together with infra red, radio frequency, WiFi technologies, etc?
- Wearable audio guidance navigation system?
- OLED folding screen ?
- Card like projector type portable CCTV ?
- Wireless camera ?
- New braille display technology?







Assistive Equipment for VI Students Trends and development

BrainPort vision device

(Blindness 'licked' by new technology)

- Tiny camera takes pictures
- Information turns to pulse felt by tongue
- Allows blind people to "see" shapes, signs









THE END

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