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<h2 style="text-align: center;">Mounting Speech Generating Devices and Tablets to Wheelchairs</h2> <p style="text-align: center;">Presenter: Michelle L. Lange, OTR/L, ABDA, ATP/SMS</p> <p style="text-align: center;"><small>Moderated by: Amy Natho, M.S., CCC-SLP, CEU Administrator, SpeechPathology.com</small></p>	

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MOUNTING SPEECH GENERATING DEVICES AND TABLETS TO WHEELCHAIRS

Michelle L. Lange, OTR/L, ABDA, ATP/SMS






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Mounting AT to Wheelchairs

- Speech Generating Devices (SGDs)
 - Larger
 - Smaller (less than 5 lbs)
- Computers
 - Notebooks
 - Tablets



Dynavox T Series

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Poll Time

- Are you working with Mounting Systems?
 - I recommend them
 - I mount them
 - Nope
 - I would like to!

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Whose Job is This? Recommendation

- Partly, it comes down to funding
 - If the SLP orders a mount with the device, then the SLP may need to "spec" this out
 - If the wheelchair supplier orders the mount, they may "spec" this out
- Sometimes, it is the Occupational Therapist
 - The OTR may determine the optimal SGD access, placement and mounting system

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Whose Job is This? Ordering and Funding

- If the mount is ordered with the SGD, funding may be for both and the SLP typically does this
- If the mount is ordered with a new wheelchair frame, the wheelchair supplier may order the mount, or at least a new frame clamp
- If a mount is ordered alone, whoever can pursue funding may order

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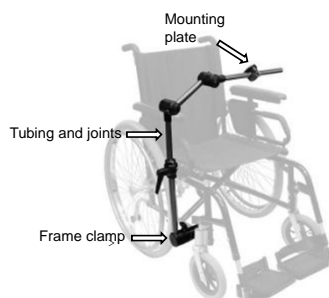
Whose Job is This: Mounting

- Who holds the Allen wrenches?
- Typically, whoever ordered the mount
- The wheelchair supplier often knows how, but if they did not pursue funding, they will not put on the mount
- Mounting is usually too difficult for a client or caregivers to do competently
- Whoever attaches the mounting system must be competent and assumes liability

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Terminology

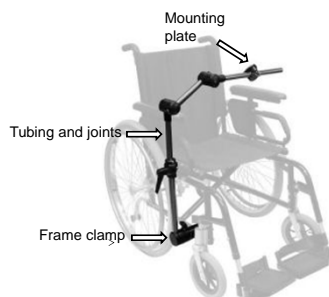
- Frame Clamp attaches to frame and is designed to fit a specific shape and diameter



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Terminology

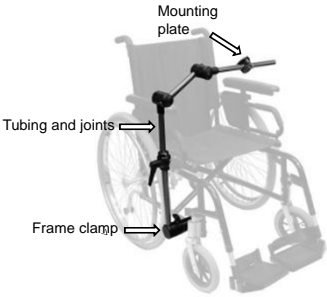
- Horizontal and/or vertical sections of tubing with or without joints dictate final position of mount



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Terminology


- Mounting Plate connects the mount to the AT device. A device adaptor may be required.



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Terminology

- SGDs must have an adaptor plate on the device, as well



Device Adaptor

Mounting Plate

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Why Mount?

- Access
 - Direct
 - Head Mouse
 - Eye Gaze
- Visual Regard
- Security
 - Falling
 - Theft

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How Do I Get Started?

- Device Type
- Device Placement
- Mount Placement

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How Do I Get Started?

- Device Type
 - Which device?
 - What mounting plate will be required?
 - Will a device adaptor be required for the device itself?
 - Choose appropriate mounting category



Prentke Romich
Accent

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How Do I Get Started?

- Device Placement
 - Determine approximately where the device needs to be placed
 - For optimal visual regard and access
 - Within boundaries of wheelchair so device doesn't get bumped
 - i.e. through doorways
 - Not blocking client's view of
 - Communication partner
 - Blackboard
 - Where they are propelling MWC or driving PWC

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How Do I Get Started?

- Mount Placement
 - Where will the frame clamp be placed based on desired device placement?
 - Place above tilt
 - Avoid moveable parts
 - Ensure mount can move out of the way for transfers
 - Fold, swing-away or remove
 - Ensure mobility base will not tip over from weight of mount and device if to the side during transfers



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Ordering Help

- Some Mounting manufacturers offer additional help
- For example, take photos from several directions holding the device where you want it in relation to the wheelchair
- They will spec out what you need!
 - REHAdapt VMS

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Questions?

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Mounting Speech Generating Devices (SGDs)

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Mounting: SGDs

- Larger devices include:

- Dynavox Maestro
- PRC ECO, Essence
- Tobii

- Smaller devices include:

- Dynavox T series
- PRC Accent
- Saltillo NovaChat series



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Mounts for Larger SGDs

- Larger devices are bigger in dimension and weight
- Usually not a weight limit due to variety of configurations and usage
- Devices accessed by eye gaze always require a heavier capacity mount due to both weight and height requirements

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Mounts for Heavier SGDs

- BlueSky Designs
- CJT Enterprises
- Daedalus
- Dynavox
- Prentke Romich
- REHAdapt

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BlueSky Designs

- Mount n Mover



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Specifications


- Pros:
 - Allows the user to independently move the mount in various positions for transfers and access. It can be especially helpful with Eye Gaze technologies.
 - Supports wide range of wheelchair frame sizes
 - Supports wide range of SGDs



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Specifications

- Cons:
 - Heavy
 - Bulky
 - Large frame clamp
 - Does not fold
- Cost
 - \$710-1300



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CJT Enterprises

- Profiler
- Profiler Angular




Profiler Angular

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Specifications

- Pros:
 - Fits most frames
 - Many options for placement on frame
 - Supports wide range of devices




Profiler

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Specifications


- Cons:
 - Heavy
 - Bulky
 - Large frame clamp
 - Does not fold
- Cost:
 - \$856-1400
 - Standard and Super versions



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Profiler Angular

- Can attach under the seat pan or behind seat back



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Daedalus

- Rigid
- Folding
- Locking Swing Away
- Rear Folding
- Positioner

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Specifications

- Pros
 - Wide variety of frame clamps, including custom sizes, locking clamp for tilt frames, side clamp for placement on seat rail
 - Clamp takes up little space on frame
 - Supports many devices
 - Folding version



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Specifications

- Cons
 - Heavy
 - Pin in frame clamp can slip during tilt if locking clamp is not used
- Cost
 - \$600 - 1100



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Rigid

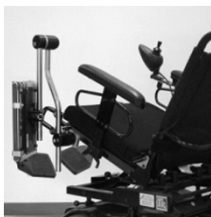
- Rigid
- Lighter than others
- Simple
- Less costly



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Folding

- Folds away to side
- Allows transfers without base tipping
- Device is facing out – risk of damage



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Rear Folding

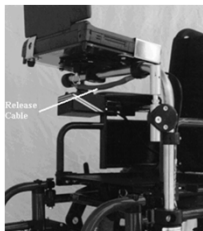
- Very heavy
- Non-removable
- Allows device to remain on chair out of the way, even during transport



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Locking Swing Away


- Allows client to pull down on cable and push mount to the side for independent transfers
- Can be difficult to operate



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Positioner

- Different joints than other Daessy mounts
- Less bulky
- More planes of adjustment at joints



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DynaVox

- ConnectIT
- Made by REHAdapt



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Specifications

- Pros
 - Lighter weight than other mounts in this category
 - Fits most frames
 - Frame clamp is small
 - Tubes flow through joints for increased adjustability



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Specifications


- Cons:
 - Only supports Dynavox products
 - Does not fold
- Cost:
 - \$1100 base



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Prentke Romich

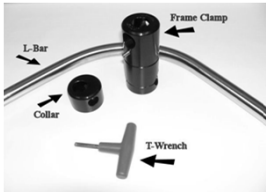
- Wheelchair Mounting Kit (WCMK)
 - Basically a Daessy Rigid Mount



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Specifications

- Pros:
 - Simple
 - Easy to mount
 - Less costly than some other options



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Specifications

- Cons:
 - Rigid with little adjustment
 - Heavy
 - Only supports PRC products
- Cost
 - \$675



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REHAdapt

- Monty 3D



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Specifications

- Pros:
 - Lighter weight than other mounts in this category
 - Fits most frames
 - Small frame clamp
 - Tubes flow through joints for more adjustability
 - Works with a variety of devices
 - 3 positions for transfers
 - Knob or tool adjustment versions



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Specifications

- Pros:
 - Folding version (3DK)
 - Heavy duty version for eye gaze systems (3D eye)

3 Built-in Positions
1: In Use
2: Extending
3: Parked

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Specifications

- Cons
 - Pin can slip during tilt without Swivel Joint with lever (not included on standard 3D)
- Cost
 - \$755 - 1100

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Power Options

- Some clients need to reposition a SGD for varying access methods (i.e. Direct and Eye Gaze)
- Some clients need to reposition a SGD for visual field during mobility
- Some clients need to move a SGD out of the way for transfers

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Power Options

- Power mount
- Motion Concepts





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Mounts for Smaller SGD's

- Smaller in dimension and weight
- If client uses excessive force against the device and/or mount, a heavier mount may be indicated
- Generally lack the height available in heavier mounts
 - i.e. for eye gaze

Nova Chat 7



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Mounts for Smaller SGD's

- CJT Enterprises
- Daedalus
- REHAdapt

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CJT Enterprises

- ProLite




A black and white photograph of the CJT Enterprises ProLite monitor mount. It features a flexible, articulated arm that can be adjusted to various angles. The arm is attached to a base that would typically be mounted on a desk or stand. The monitor itself is not shown, but the mount is designed to hold one.

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Specifications

- Pros:
 - Holds up to 5 lbs
 - Smaller and lighter than standard mounts



A black and white photograph showing the CJT Enterprises ProLite monitor mount installed on a chair. The mount's arm is extended, holding a small monitor. This demonstrates its use in a mobile or adjustable workspace.

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Specifications

- Cons:
 - Some frames require larger frame clamp
- Cost:
 - \$565.00




A black and white photograph of the CJT Enterprises ProLite monitor mount with a monitor attached. The monitor is a standard desktop size. The mount's arm is extended to the right, showing the range of motion and how the monitor is positioned relative to the base.

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Daedalus

- M series
 - Mini Adjustable Mount
 - Mini Folding
 - Mini Rigid




Mini Adjustable

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Specifications

- Pros:
 - Smaller and lighter than standard mounts
 - Holds up to 10 lbs
 - 3 versions




Mini Folding

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Specifications

- Cons:
 - Heavier than many other mounts in this category
- Cost:
 - \$900




Mini Rigid

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REHAdapt

- Tablet Mount
 - Supports other device adaptors for smaller SGDs




with SuperClamp

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Specifications

- Pros:
 - Smaller and lighter than standard mounts
 - Versions include knob (QS) or tool adjustment
 - Frame clamps for most size frames
 - SuperClamp for unusual sizes
 - Device adaptors and mounting plates for most lightweight SGDs, including tablet based devices




QS version

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Specifications

- Cons:
 - None that I have come up with...yet
- Cost:
 - \$275-355



IC version for wheelchair

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Questions?

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Mounting Computers

- Notebook/Laptop
- Tablet

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Mounting Notebooks

- BlueSky
- CJT Enterprises
- Daedalus

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BlueSky Designs


- Mount 'N Mover

A black and white photograph of a mechanical arm device. The arm is articulated with multiple joints, allowing it to move in various directions. It has a flat, rectangular base plate with several small holes, and a circular component at the end of the arm.

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CJT Enterprises


- Profiler
- Angular

A black and white photograph of a wheelchair with a specialized seat and backrest. The seat is tilted back, and the backrest is also tilted. The wheelchair has large rear wheels and smaller front wheels.

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Daedalus

- Daessy series

A black and white photograph of a specialized wheelchair. The seat is tilted back, and the backrest is also tilted. The wheelchair has large rear wheels and smaller front wheels.

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Questions?

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Poll Time

- Are you being asked to mount Tablets?
 - All the time!
 - Occasionally
 - Never

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Mounting Tablets

- REHAdapt
- Stealth
- Therafin
- Others

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Mounting Tablets

- There are an ever increasing amount of Tablet mounts
- Some do not hold their position well or offer adequate positioning, so are not included here

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REHAdapt

- Tablet Mount
- Pros:
 - Versions include knob or tool adjustment
 - Frame clamp fits most size frames
 - SuperClamp available for unusual sizes
 - Various tablet mounting plates available



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REHAdapt


- Cons:
 - None that I have come up with yet...
- Cost:
 - \$275-355



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Stealth Products

- Tablet Mount
- Pros:
 - Various links can be added or removed to achieve desired position
 - Adjustable mounting plate holds various size tablets
 - Swing away option



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Stealth Products

- Cons:
 - Heavy
- Cost:
 - \$375 Gatlin style
 - \$555 Standard



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Therafin Corporation


- Communication Mount
- Pros:
 - Holds iPads, iPad minis, 7" and 10" tablets
 - Extension kit adds 3-6" to any mount



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Therafin Corporation


- Communication Mount
- Cons:
 - Frame clamps are limited
- Cost:
 - \$510 - 815



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Other

- Resourceful? Check out RAM mounts
- <http://www.rammount.com>



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Funding

- Can you get funding for a Tablet mount?
- Yes – if Tablet is being used for communication
- No – most of the time

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Questions?

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Thanks!

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References:

- Wheelchair Mounting Systems Comparison Matrix, www.atilange.com, under Resources
- Carrington, Patrick, Amy Hurst, and Shaun K. Kane. "How power wheelchair users choose computing devices." *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, 2013.
- Lin, Wendy, et al. "Mobility-assistive technology in progressive neuromuscular disease." *Physical medicine and rehabilitation clinics of North America* 23.4 (2012): 885-894.

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