

Mount'n Mover

by BlueSky Designs





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Objectives:

- List 5 benefits and medical justifications for a movable mounting and positioning system
- Identify 3 ways using a movable mounting system impacts functional and psych-social well being
- List 3 types of device mounting/positioning alternatives and a feature consideration for each

As the use of mobile technology grows...so does the need for mounting!

- Assistive technology keeps evolving
- Mainstream technology e.g. Microsoft Windows 10 includes built-in eye tracking support good for eye gaze communicators
- More affordable to obtain
- Download apps
- Communication options expanded, not just traditional modalities but also texting, instant messaging, e-mail, and social media
- Multiple devices: phone, laptop, tablet, iPad

Essential Life Skill

Ability to access that technology has become an essential life skill for interacting with the world!

- Communication
- Functional Activities: eating, reading, writing
- Safety - access to call for help at all times
- Vocational, academics and work
- Hobbies and recreation
- Minimize individual's dependence on others
- Improve quality of life



Optimizing Device Positioning

“Optimal” varies (consider the whole picture)

- From person to person
- Their needs and specific considerations
- Impacts access, mobility, health, independence

Holistic approach

- Accommodate different devices and activities
- Multiple devices (concurrent access)
- Different operating positions
- Across environments (bed, w/c, table, work)

Types of Mounts

Simple: Basic support, static

Added Features: Movable, locking

High Tech: Powered

Movable Mounts



NEW!



Unique mechanisms allow users to independently manipulate the attached device with great ease and flexibility.

Static vs. Movable

Static Mount

- Impede transfers
- Obstructs vision
- Single operating position
- Most can not be moved independently

Movable Mount Consider if you want...

- Move independently
- Set multiple lock positions, changes with ability
- Safety - visual or physical access, reduce tipping hazard
- Use multiple devices

Do more – with a mount that moves!!!!



NEW! Simple Mounts



Quick Connect

Speech devices,
Compatible with
other mounts



Small Tray 3.75" x 7"

Phones, remotes, small devices



Large Tray 11.4" x 9"

Medium devices, eating,
writing and reading

New Simple Mounts Quick Connect

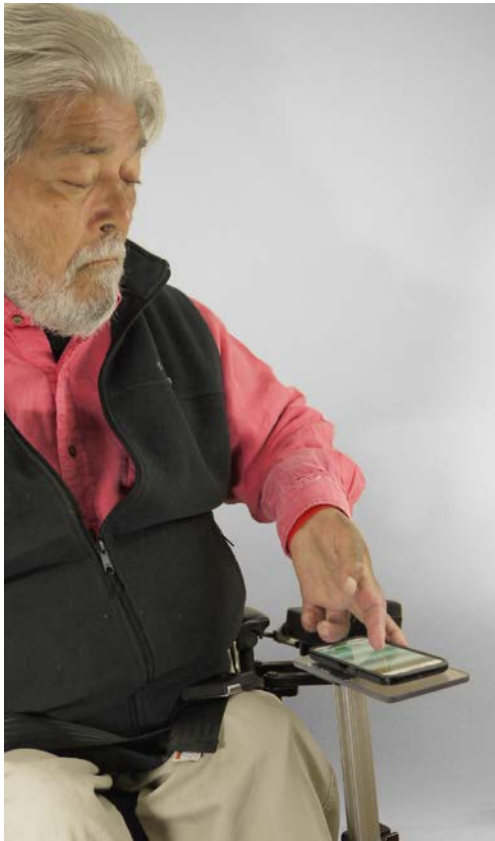


Quick Connect Plate

All Swivel



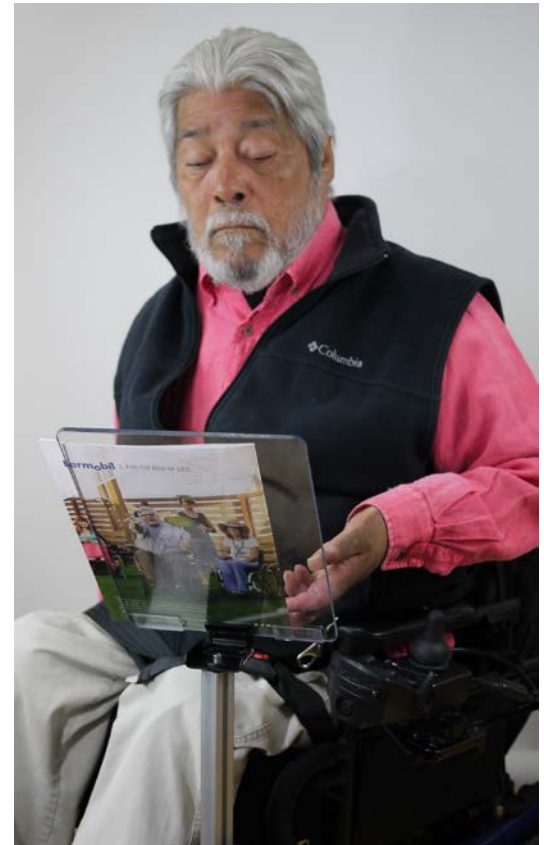
Lay Horizontal



Large tray has off-set
option to adjust depth



Vertical Tilt



Folds Down flat for Storage (trays)



Customizable Support Edges for Trays



Bottom placement



Bottom and
side placement

Corner
placement



Attach 2 edges
make channel



Double Decker



COMBINE WITH A DUAL OR SINGLE ARM

Two mounts

Dual Arm with locks holds Laptop

Simple Mount with Large Tray
holds mouse or phone and offers
an arm rest when fatigued.

***“I can now access my laptop
everywhere – not just my office”
-Cindy***



Mount'n Mover Options



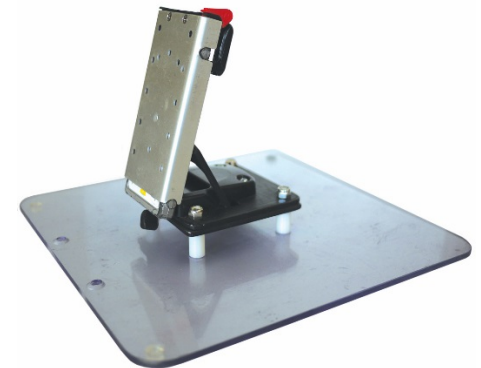
Dual Arm



Single Arm



Tilt'n
Turner

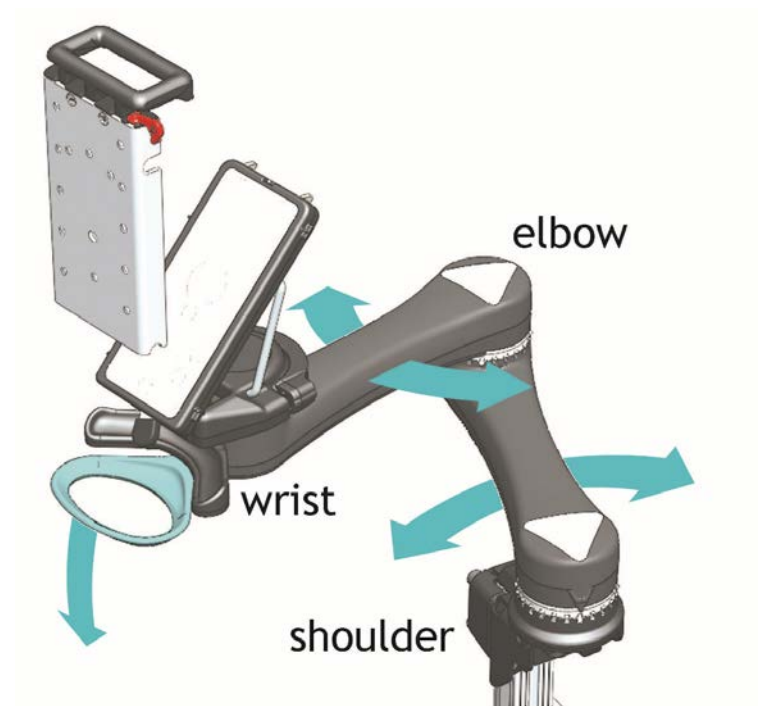


Mount'n Tilter

Now black! Silver original.

Moving The Arm

1. Press hoop. Unlocks both shoulder and elbow.
2. Move both arms at once. Use hoop to steer.
3. Let up on the hoop. Continue moving arms to find a memory lock position.



Rotate The Wrist

1. Press PADDLE to unlock wrist. Wrist is momentarily unlocked at that position.
2. Move it! Wrist will remain unlocked until it finds memory lock position.

One-handed operation!



Adjust The Tilt

1. **Unlock:** move tilt lever to the right.
2. **Adjust tilt angle:** push down or pull up on the device.
3. **Lock:** move tilt lever to the left.

High or Low resistance hinge available.

High resistance hinge recommended for large devices 5 pounds or heavier.

Slight forward tilt for eye gaze access



Customize Lock Positions



To set one or more lock positions, push lock setter(s) down.
Up to unlock*.

**Setters can only flip up when NOT locked in position*

Quick Release Plate (QRP)




The QRP is needed to attach a device or tray to the Mount'n Mover.

The QRP makes attaching or swapping out devices a snap!

New Easy Mover

- Movable joints
- Adjustable low to high resistance
- New Quick Connect Receiver compatible with other mounts and devices
- Available with locking and non-locking tilt plate



Dual Arm with
Quick Connect Receiver




Single Arm



Quick Connect Plate



Easy Mover Tilt'n Turner

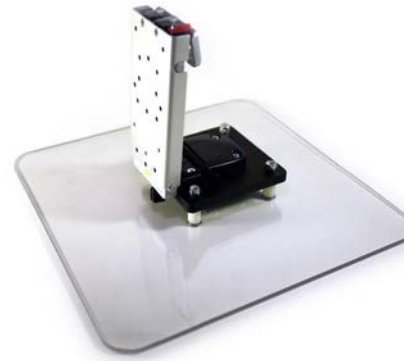
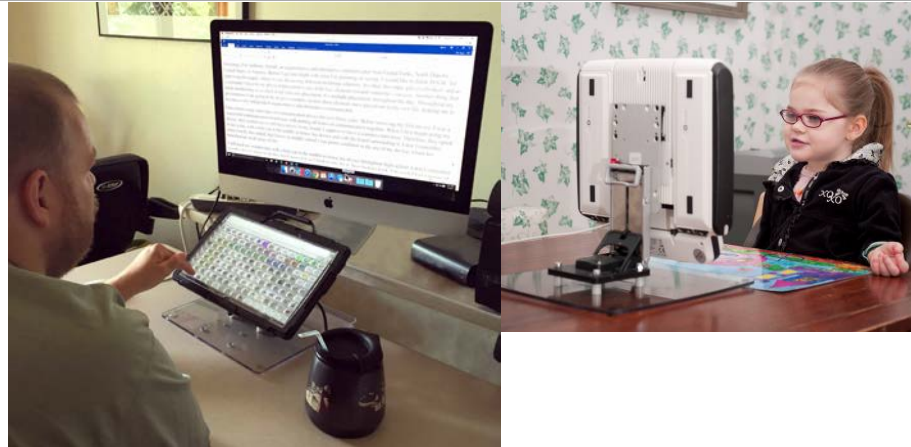


Quick Connect Plate
Locking or Non-Locking

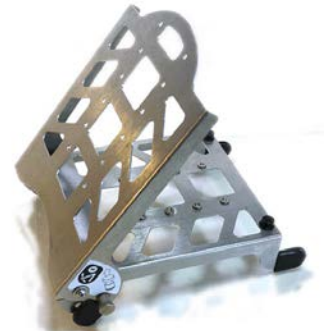
Table Mounts



Table Clamp



Mount'n Tilter



Stand +90

Where to Mount

Wheelchair



Standers

Strollers



Where to Mount



Wall



Floor Stand



Bed



Walkers



Table

Access ALL Day = Increased Communication



School added mounts for AAC to:

- Gait Trainers
- Adapted classroom chairs
- High/low standers
- Beds and more!

Noticed constant access to devices led to increase in communication

***“No more sabotaged
“speech sessions” and
set up time significantly
decreased”***

~Julie OT

Wheelchair Tray



One Mount – Many Uses

Wheelchair, bed, walker, stander, table and floor stand!



What to Mount

Trays



Mobile Devices



Other



Communication Devices



Camera



Rosie



Device & Tray Attachment Options



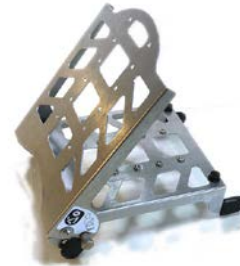
iTab Tray



12" x 12" Tray



Universal Rotator



Stand +90



Camera



Laptop Tray



Tray with Lip



Phone



Tablet & Keyboard



Device Plates

Custom Trays Available



Custom Large Tray



Can be independently moved by the User

Reduces dependency on caregivers

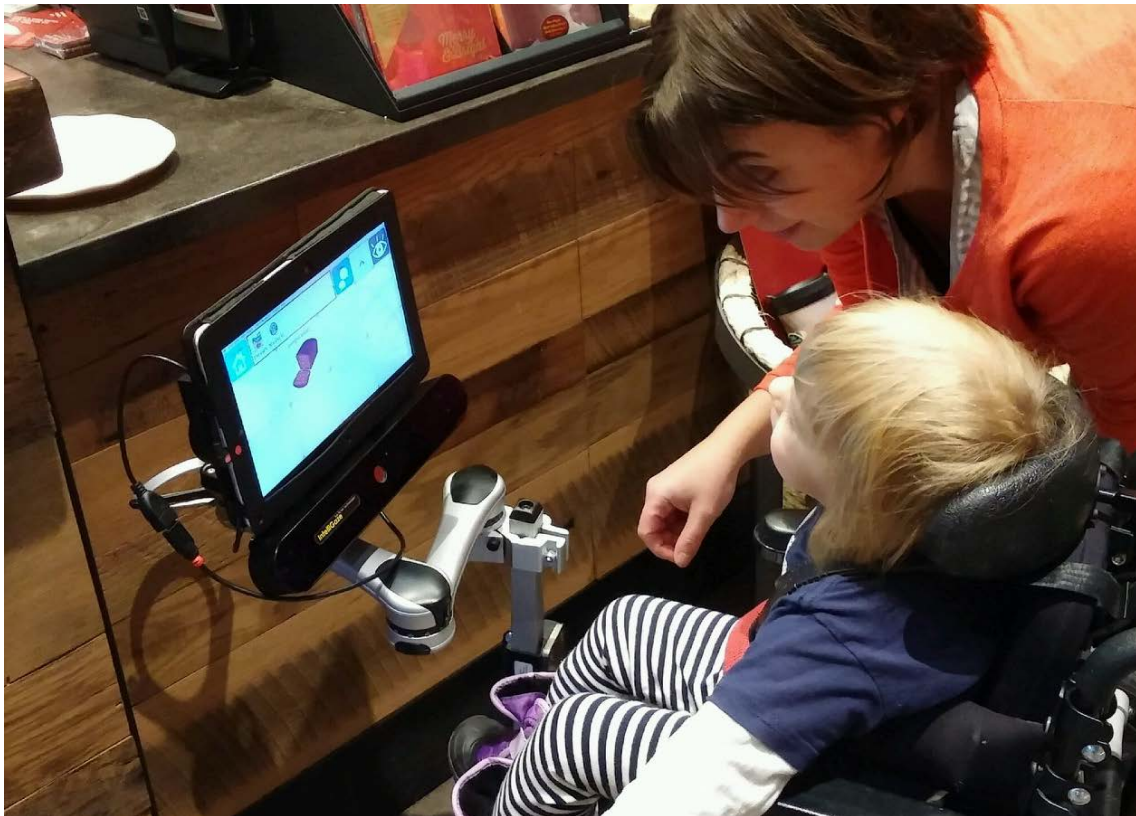
Increased independence in performing functional skills like eating, writing and communicating

Provides access to device in case of an emergency

FREEDOM!



Independence Communication



Greta places her order at the restaurant independently

Allows for a Variety of Adjustments

Does it allow for a variety of adjustments to accommodate for change in positioning, growth, fatigue, or environment?



Mount Tilts & Moves With the Chair

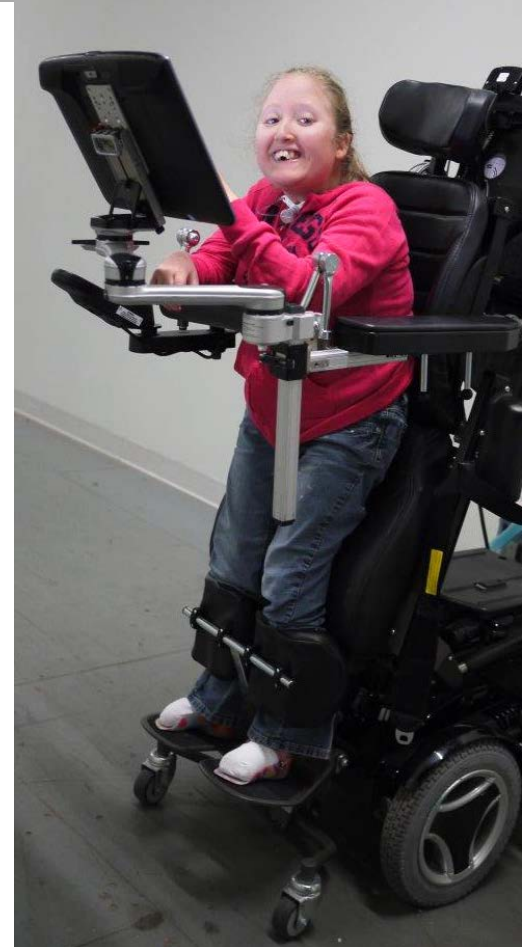


Move For Visual Access

Rotates for
visual access
when driving!



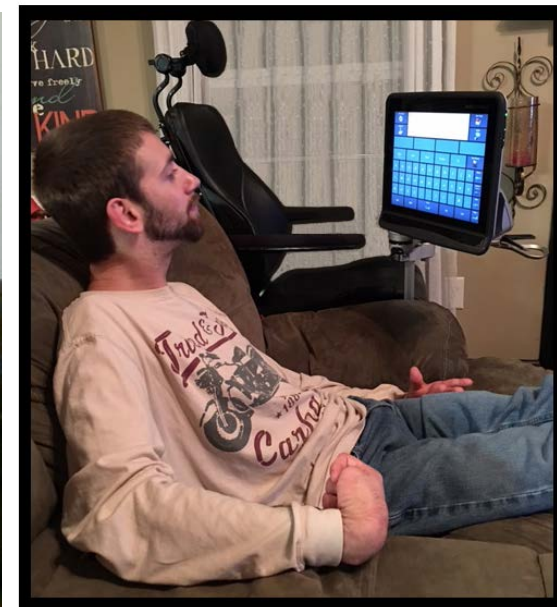
Access
device
when
standing!



Access Beyond the Chair

Swing mount around to still access device from chair or bed.

Can eliminate need for additional bed or table mount!



Double Decker Multipurpose

Easily swap out
devices or trays!



Operating Positions Adjustability

Attached to power chair
Allows camera to get close to eye
Rotation and tilt



Unique Operating Position



Ergonomics

Varies per person's needs

Access to iPad

Mount is below seat level

Stabilizes arm on leg

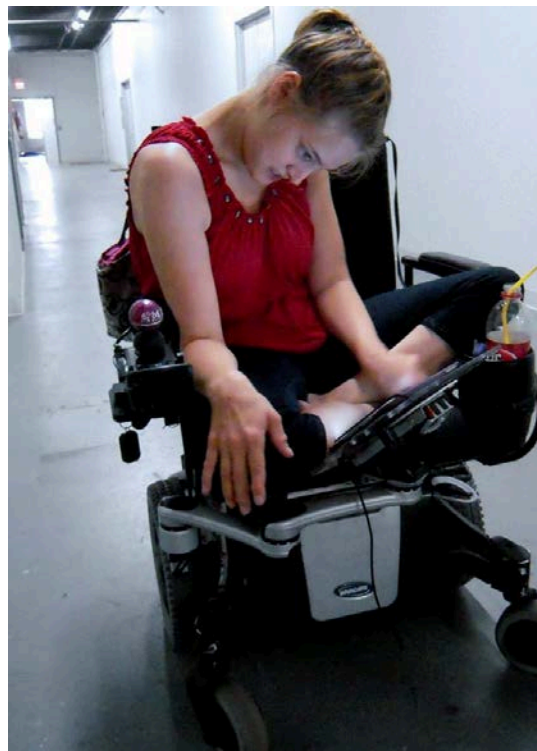
Angled for access (Vis/Phys)

Access to computer table

Needs to move it to the side

Elevates herself to work on her computer

Unique Operating Position



iPad mounted at seat level provided
ability to stabilize arm for direct
select access

Therapeutic Benefits Improve Posture

Neck pain reduced
immensely after just
one week with
elevated.

BEL13VE in Miracles
Foundation
Jack Jablonwski



Therapeutic Benefits Improve Posture



Positioning iPad
at eye level
improved posture

Access Method Eye Gaze or Head Tracker



Eye Gaze Optimal Positioning



- Positioning is critical
- Easy calibration
- Need consistent placement of device
- As position changes throughout the day - so must the mount
- Tilt and rotation
- Easy for caregivers - multiple locked positions
- Moves from chair to bed, table, wall or floor stand

Universal Rotator



Rotates

- Communication device for head tilt and side-lying for eye gaze access
- iPads from landscape to portrait and back

Stand +90



Positioning is critical

Consistent placement of device is essential

Stand+90 and Universal Rotator

Sophia needed to use eye gaze for access to her communication device while in bed and in her chair

Solution: Floor Stand, Dual Arm, Stand +90 with Universal Rotator



Easy Mover – Eye Gaze



Greta uses eye gaze to communicate, learn, create art and make music!



Searches information on her iPad, then talks about them using her speech device

Greta the Artist

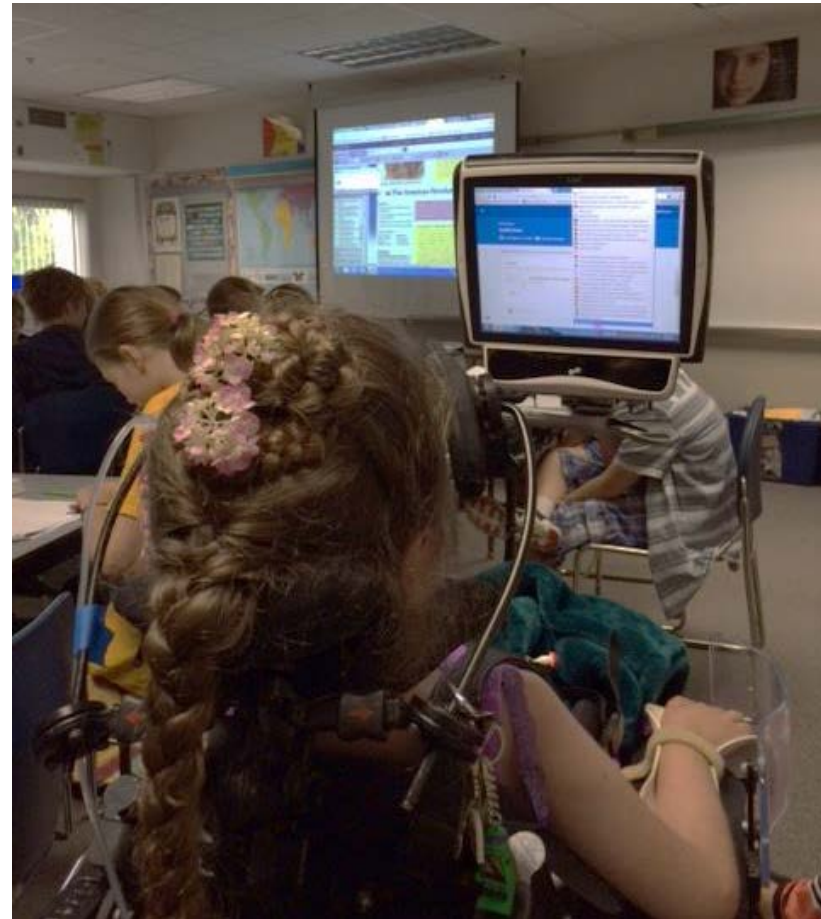


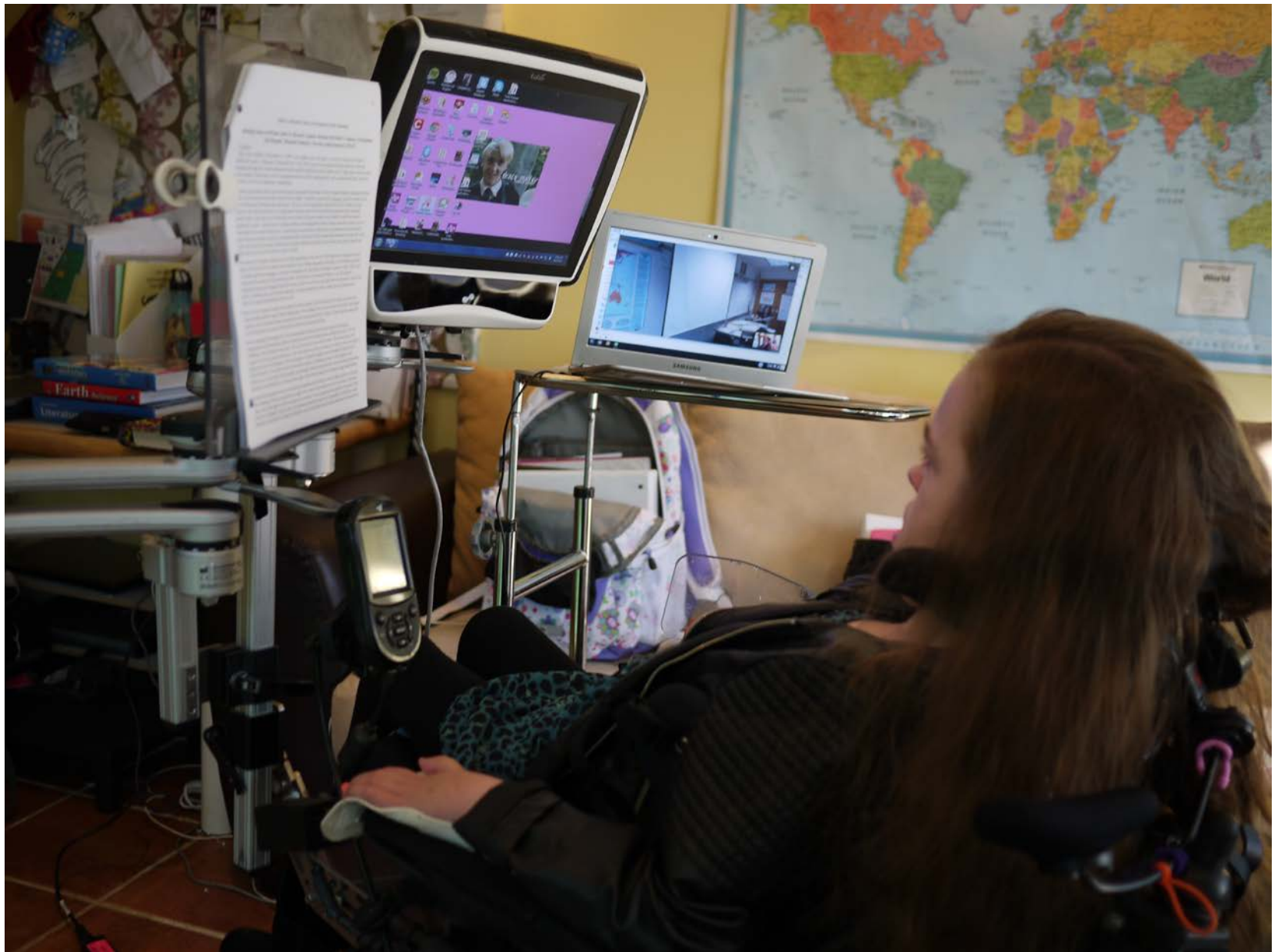
<http://studiogreta.co.uk/>

Eye Gaze



At home and school!









Move from Chair to Bed





Update - Easy Mover with Locking Tilt Plate



Video: Sophia and Her Mount'n Mover



https://www.youtube.com/watch?v=AGJK80_8jvM&feature=youtu.be

Eye Gaze Access

At the dinner table

- Mount' n Tilter

At school tables

- Table clamp
- Mount' n Tilter

On the floor

- Standing
- In low position



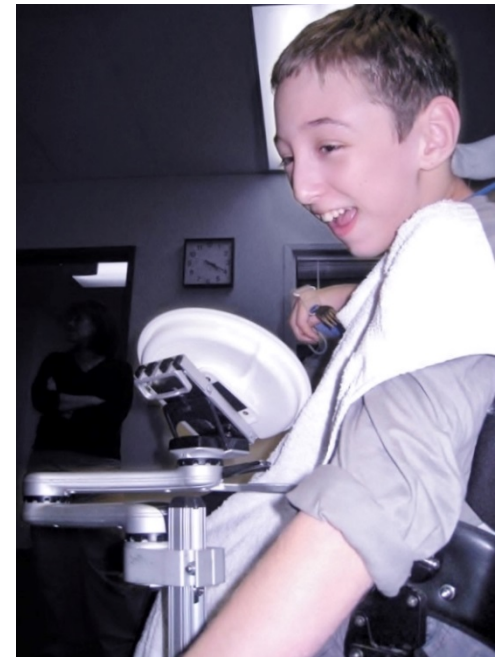
Functional Needs Music Class

Trumpet is
mounted to
support
weight and
raise into
position

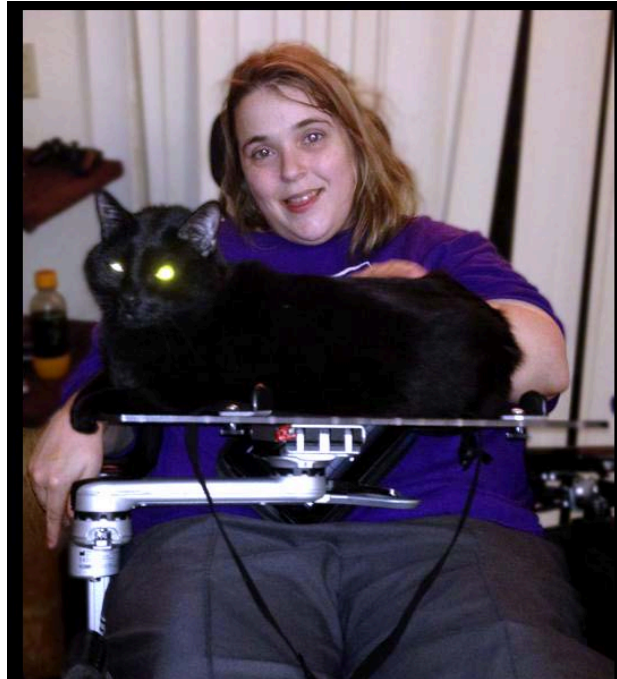


Functional Needs Eating

With optimal positioning of his plate, Jordan can feed himself for the first time!



Functional Needs Think Outside the Box!





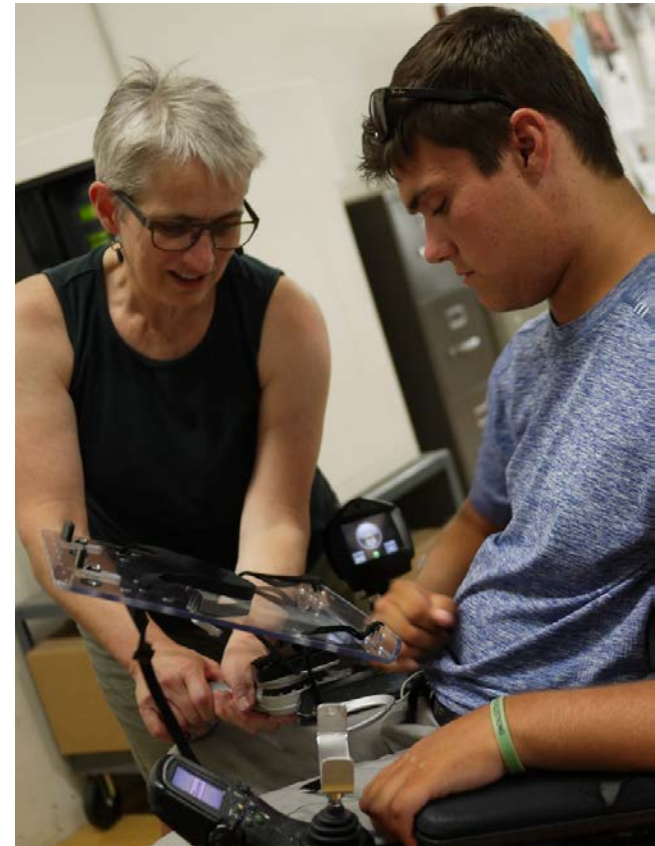
Universal Access Station Kit



- Cafeteria, library
- Therapy room
- Evaluations Centers

Evaluation Tool

- Mount can allow for ease adjustments and is customizable for evaluations
- Ability to be quickly attached to a variety of surfaces, easily moved, and provide a stable set up for evaluations
- Consider using it during therapy sessions for working on range of motion, posture and visual access or testing



Evaluation Kits



**Device Plate
Attachment Set**



**Eval Kit
includes Case**

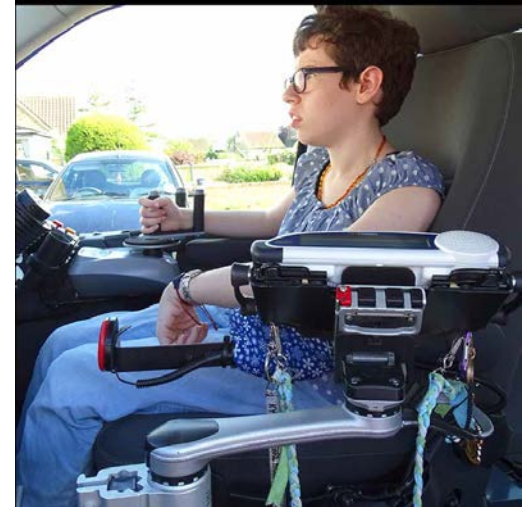


Table Eval Kit

Grows with Client to Meet Changing Needs



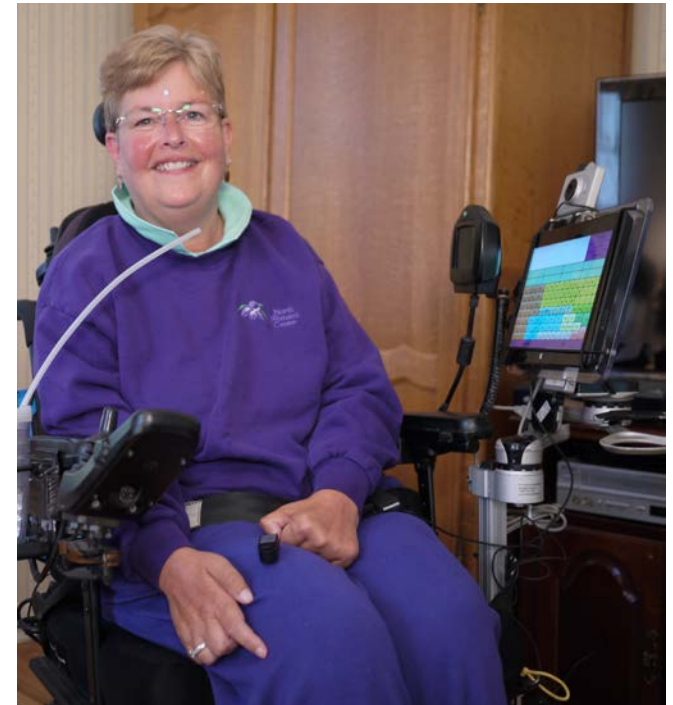
Tools for life!



ALS - Mount Changes as Abilities Change

Gae - first mount user!

- Positioning reduces fatigue
- Transfer and use the toilet
- Reboots device, adjusts for glare
- Visual access for driving, TV
- Access to tables and sink
- Moves to exercise her legs
- Moves to side for photos



New Single Joint Pow!r

- Tilt device – prevent glare, drive
- Move to the side to transfer
- Move close for visual or physical access
- Increase independence



New Pow!r Mount Shoulder Hybrid System

Mount'n Mover with Pow!r Shoulder

Single or Dual switch control

Three modes of control:

- Alternate directions with one switch
- One switch for each direction
- Go to customizable target positions with one switch



Brea



New Pow!r Mount Tilt Hybrid System

Mount'n Mover with Pow!r Tilt

Single or Dual switch control

Three modes of control:

- Alternate directions with one switch
- One switch for each direction
- Go to customizable target positions with one switch



Direct, Single or Dual Switch Access



End Cap: access, switches, power, and control

Built-in keypad

No app required for Single joints/Hybrids

Switches plug into End Cap

Switch 1: Toggles direction

Switch 2: Goes to 2 Target positions

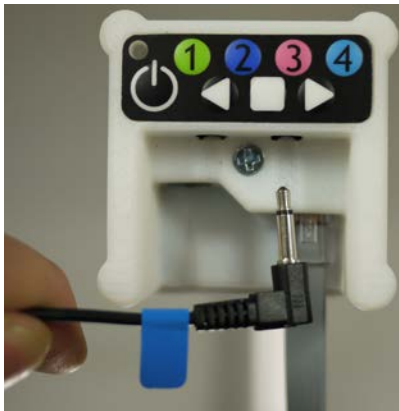
Two switches: Directional

Power options

Built-in 12v lead acid battery

Wheelchair battery

AC-DC converter/power supply



Case Study: Scott

Mayo clinicians and BlueSky Designs

Overview

- Tetraparesis due to SMA
- Lives alone in the community
- Enjoys playing games, watching movies and socializing with friends on the computer
- Need for power mount:
 - Create opportunity to self suction oral secretions while home alone



Scott's Computer Workstation



Challenges

Limited care time – set up at desk in power wheelchair

Decrease risk for aspiration pneumonia, choking and respiratory infections

Thumb and Index finger flexion, extension, minimal pronation/supination on right hand, slight pronation on left hand

Using voice increased saliva, gurgle sound

Solution: Independent Suctioning via a Hybrid Mount with Power Shoulder

Power shoulder joint

Brings yankauer into position with thumb and MicroLite switch

Actuates suction with index finger and 2nd switch

Attaches tube to plate with PVC angle and clips



Final Setup



Kensington Expert Trackball
MicroLite Switches (2)
PowerLink 2
Hybrid Mount with Power Shoulder
Yankauer



Scott: Case Study Outcomes

Quantitative

- Decrease in frequency of respiratory illness

Qualitative

- Patient-Specific Functional Scale
 - Score increased from 0 to 10 with self suctioning independence
- Decreased anxiety
 - “I would limit what I would do because I had a feeling of drowning”
- Increased engagement with friends
 - “I actually talk to people a lot on the computer and now I can talk the whole time...my voice doesn't get gurgly”

Future Developments

Pow!r Mount Multiple Joints

Control options:

- Switches
- Touch display
- Accessible app
 - Easy and efficient (target positions)
 - Independence (adjust individual joints)
 - Customizable (change devices, controls, preferences, different configurations)
 - Android and iOS
 - Touch with finger or stylus tip
 - Switches: Timed scan or Step scan



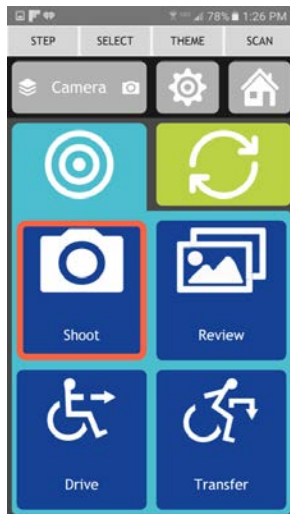
Pow!r Mount App's Main Screens

Targets—to quickly move to favorite positions

Adjust—to make adjustments to individual joints

Groups—Sets of targets for devices or environments

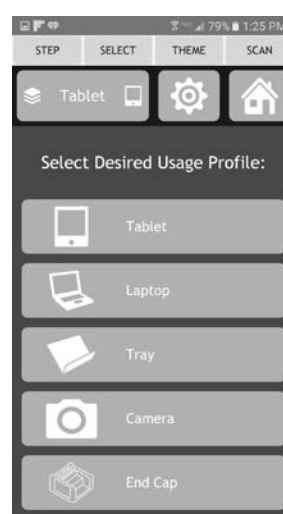
TARGETS



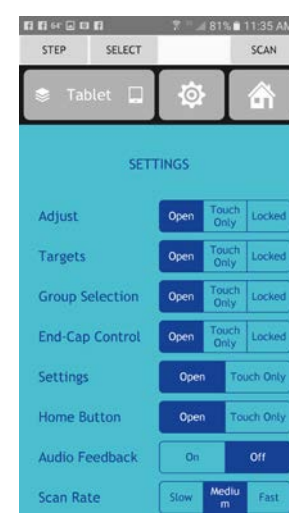
ADJUST



GROUPS



SETTINGS



Future Developments Auto Repositioning



A mount that Auto-Repositions a speech device!



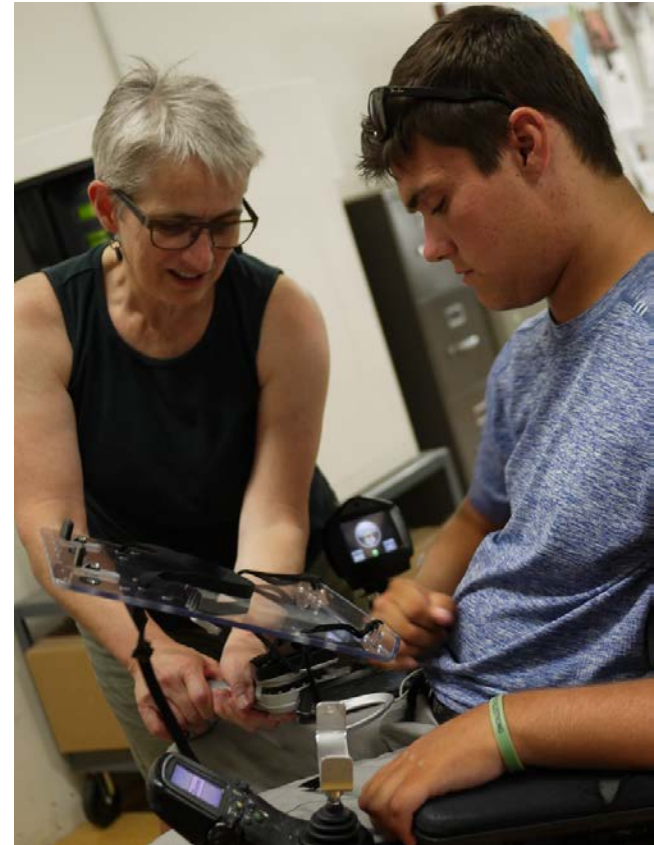
Out of position
(not calibrated)



Pow!r Mount repositions
(calibrated)

Assessment Questions

- Does it allow for daily adjustments for change in positioning, growth, fatigue, environment?
- Can the mount be used independently by the user?
- Does the mount allow access to a variety of items?
- Can it provide multiple operating positions without the use of tools?



Assessment Questions

Continued

- Does it enable independent access to a communication device in all situations and environments at all times?
- Can the device be moved out of the way rather than removed entirely risking damage and loss?
- Does the mount provide consistent positioning for specific locations?
- Can it be moved from chair to bed thus eliminating the need for 2 mounts?
- Does it help caregivers set up device?

Medical Justifications

Need to access from a tilted position

Improved visual access for driving

Positioning for access from more than one position (direct and eye gaze)

Able to quickly move the device

Hygiene: able to use a sink and toilet

Positioning changes, so device must change

Must adapt as abilities change (ALS, MD...)

Safety - keep chair from tipping

See: www.mountnmover.com/evaluate-buy/funding/

Letter of Necessity

- Provides independence through positioning and ease of use
- Allows for appropriate communication device position while the chair is tilted
- provides (name) continuous access to their communication device in the event of an emergency
- Decreases tipping hazard
- Improved visual access for driving/wheeling
- Customized lock positions avoids caregiver guessing and frustration
- Provides access to technology/communication 24/7 in case of emergency

Health Benefits

Optimal Positioning and Access Provides:

- Ability to exercise without restrictions
- Improved range of motion & fine motor dexterity
- Improved access to sink and toilet (hygiene)
- Improved ability to eat (up to a table or positioning of tray)
- Improved ergonomics; less pain
- Ability to change positioning based on the activity
- Better head control due to device positioning (height & tilt)
- Less fatigue

Psychosocial Benefits Of A Moveable Mount Reported

Study by Ithaca College OT Department

PIADS: How are you affected by the Mount' n Mover?

Adam Kinney, MS and Lynn Gitlow, PhD, OTR/L, ATP

"A Consumer-Centered Approach to Evaluating Assistive Technology Usability Outcomes"

June 2015 issue of American Occupational Therapy Association Special Interest Section on Technology.

Increase:

Competence

Adaptability

Self esteem

Decrease:

Frustration

Embarrassment

Confusion

Impacted more than device access, unrelated tasks were easier to perform. Tasks included: transferring, answering calls, socializing, feeding, shopping, and adaptive baseball.

Resources -Therapist Page

<https://mountnmover.com/community/therapists>

- Funding information
- Research
- Videos
- Reviews
- And more!

Videos

Mountnmover.com

Gae - ALS

Rick - Spinal Cord Injury

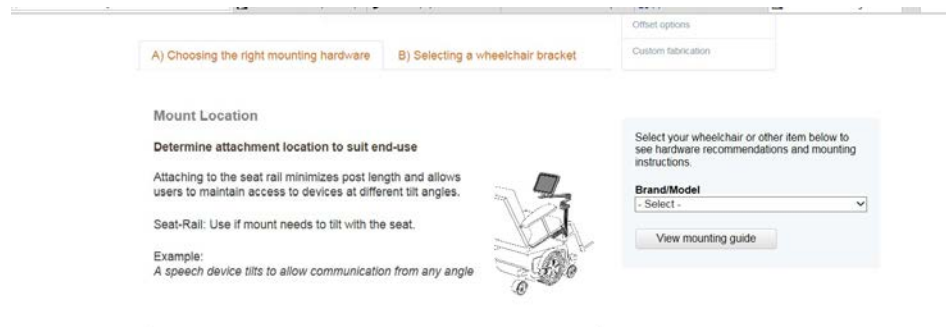
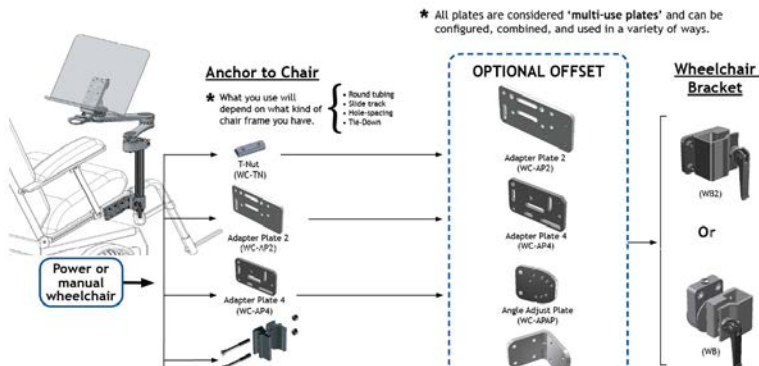
Sophia - SMA, Eye Gaze

Support Tab Wheelchair Mounting Overview



Wheelchair mounting overview

The diagram below shows how to mount to your wheelchair or other object. Click on hardware parts in the diagram to view specifications and install instructions. Click here to view a high-resolution version of the diagram (JPG).



If you prefer that the mounted device does not tilt with a tilting wheelchair, attach to the sub-frame or base.

Frame-Rail: Use if mount must remain stable regardless of seat angle.

Example:
A tray for eating needn't tilt.

Mounting hardware by wheelchair type

Check out our mounting options list, where we have mounting guides for many wheelchairs, walkers and more.

We also have generic guides for various frame types, listed in the Mounting Guides menu.

Offsets and extensions

Mounting to a wheelchair can sometimes be tricky. There will be situations where

NCIS: New Orleans

Daryl Mitchell
(Patton Plame)



CTG Solutions Oct/Nov

mounting

Mounting Solutions for Simple to Complex Mounting Needs

It's essential for a person's physical and psychological well being to be able to readily and independently access food, drinks, technology and other items in their environment. People need access to their phones, iPads, tablets, cameras, speech devices and trays to make this possible. Positioning and securing these ever-evolving items for access can be a challenge for people with major and even minor mobility limitations. Mounting systems help stabilize and position devices for optimal access on wheelchairs, tables, beds and floor stands through every stage of a condition or disease over a lifetime. With the wide variety of mounting options available, it's important to be familiar with feature considerations to determine the best mounting recommendation possible and address the access needs of individuals with disabilities and their caregivers.

Due to the progressive nature of some diseases like ALS, MS, SMA and MD, it becomes important to maintain a client's ability to access technology and initiate control as the disease progresses and motor skills decline. This typically results in an increase in use of technology to address communication and environmental control needs. Adding to the challenge, access methods, technology and positioning need to adapt to keep up with the changes in physical abilities. They may start with simple systems and need to move to more complex systems as their needs change. This becomes increasingly important when using speech devices and mobile devices to communicate via speech, email, etc. Many people with disabilities are effectively using these devices to access social media and other programs to connect with their support networks, build relationships and stay productive and safe. Providing an effective mounting solution

is critical for success.

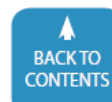
There are many mounting solutions on the market. Fixed, single-position mounts do not offer the end user the independence of moving his/her own device to a different position without help from another person. Movable mounts offer an alternative to stationary mounts and trays and provide benefits that go beyond access to the device for both the client and the professional. Family members and caretakers appreciate the safe, quick and easy repositioning of devices for transferring, eating, toileting, changing devices and pulling up to tables or sinks.

Individuals with limited use of their upper extremities can move their device to a position that facilitates independence performance. Individuals using a movable mounting system experienced functional gains and psychosocial benefits resulting from increases in their independence and self-esteem (Kinney, Gitlow, Goodwin, 2014). It's recommended to review the advantages and limitations of mounting devices. Identify mounting needs and take a holistic approach considering the person, their goals, activities, devices and the environment in which it's used. Off-the-shelf mounts cost less, but may not hold position under the weight of the device and user's touch, especially if they have high muscle tone.

Mount'n Mover movable systems offer unique features specifically designed to promote independence and access. Making it possible to mount mobile devices, speech devices, and trays on wheelchairs, tables, beds and floor stands.



MARY KAY WALCH, COTA, Director of Sales and Marketing at BlueSky Designs, has worked in the assistive technology industry for more than 30 years. Improving product design and life for individuals with disabilities. Her specialty is accessibility and independence with optimal positioning and stability through mounting solutions.



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BlueSky Dream Team



Thank you!

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