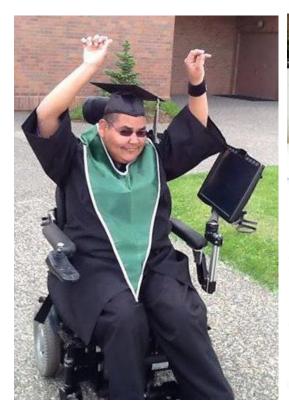
# Mount'n Mover

by BlueSky Designs















### Mounting: Rethinking Traditional Static Options









#### 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

### Why do you need a mount?



Why mount? To support a person's physical and psychological well being to be able to readily and independently access food, drinks, technology and more!

Need to position and secure these items for optimal access through every stage of a condition. Adapt to physical changes and access method changes.

Independence!!!



### 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

#### 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!!!!



#### Movable Mount

Michael is able to move his mount to the side to pull up to a desk or access his tray.











"The Mount'n Mover has greatly increased my independence level each and every day. The mount lets my IPad sit at eye level and is readily available for when I want to check or read something, or when I need it as a communication device. While at work, I can move the arm with the nifty handle so I can roll into my work station. In addition, the Mount'n Mover provides the opportunity for me to take pictures and videos on my own. Needless to say, this device is a great tool to greater one's freedom and I give it my approval!"

Michael L. Sack

#### Movable Mounts





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

## 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





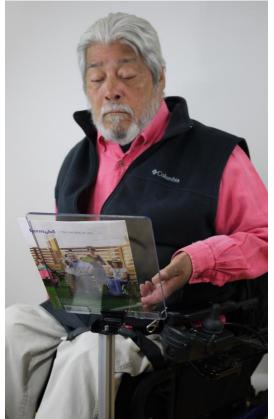
Large tray has off-set option to adjust depth





### Vertical Tilt





# Folds Down flat for Storage (trays)









# Customizable Support Edges for Trays





**Bottom placement** 



Bottom and side placement







# Double Decker - Simple Mount with Dual or Single Arm





# Mount'n Mover Options







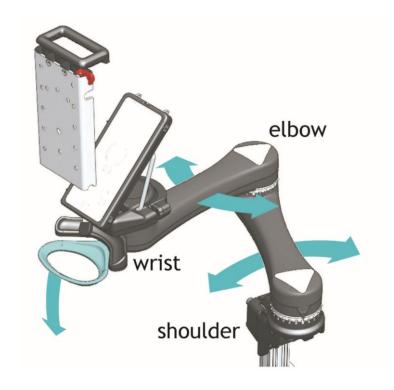
Single Arm



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



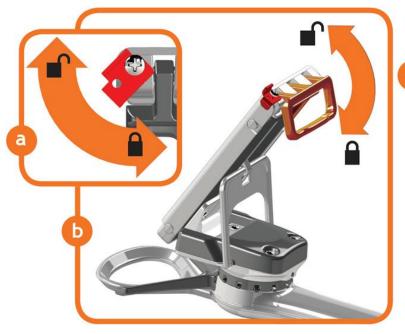
#### **Customize Lock Positions**



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!

## 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



Easy Mover Tilt'n Turner



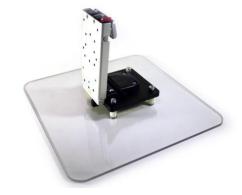
Quick Connect Plate Locking or Non-Locking

**Quick Connect Plate** 

#### **Table Mounts**









Mount'n Tilter

Stand +90

#### Where to Mount

#### Wheelchair







Standers

#### **Strollers**



#### Where to Mount



#### Adapts to different environments

Moves easily from chair, bed, table, stander, walker and floor stand!











### One Mount - Many Uses

Adapts to different environments. Wheelchair, bed, walker, stander, table and floor stand!









# 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

#### What to Mount





Technology

**Communication Devices** 



Trays



Camera



Other



"Overcoming obstacles is the stuff of being a disabled person, and so when the mountain seems ever harder to climb, we look at ways of moving the mountain a little closer which, for most of us, means we can look at ways of making life easier in all kinds of different ways".

"One of the things the Mount'n Mover does is give you back some of the spontaneity that life as a disabled person doesn't always allow. With the Mount'n Mover the emphasis is very much on the product meeting the needs of the consumer".

Rosie Moriarty-Simmonds OBE Consultant, Writer, Artist, Presenter, Photographer

http://fourfingersandthirteentoes.wordpress.com/

Copyright © 2014 by Rosaleen Moriaty-Simmonds, Photography by James Moriarty-Simmonds

# Device & Tray Attachment Options



iTab Tray



12" x 12" Tray



Universal Rotator



Stand +90



Camera



**Laptop Tray** 



Tray with Lip



Phone

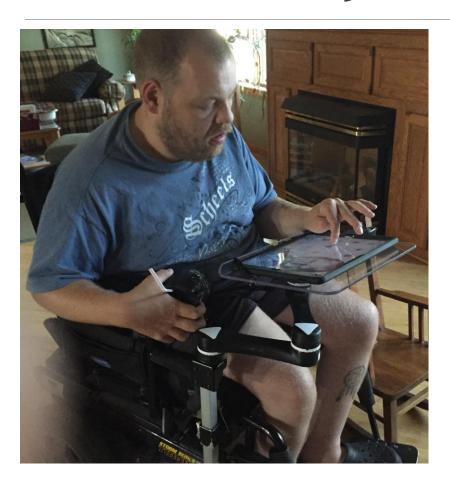


Tablet & Keyboard



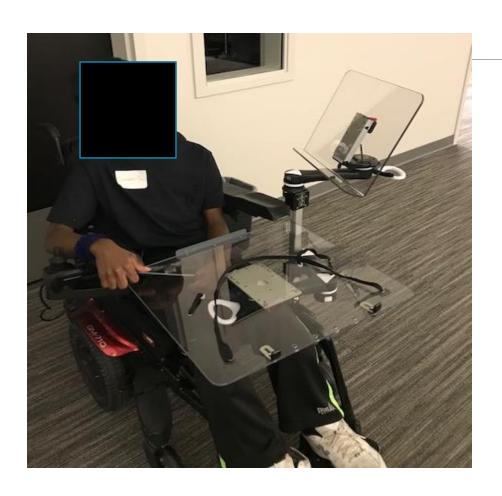
**Device Plates** 

# 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?

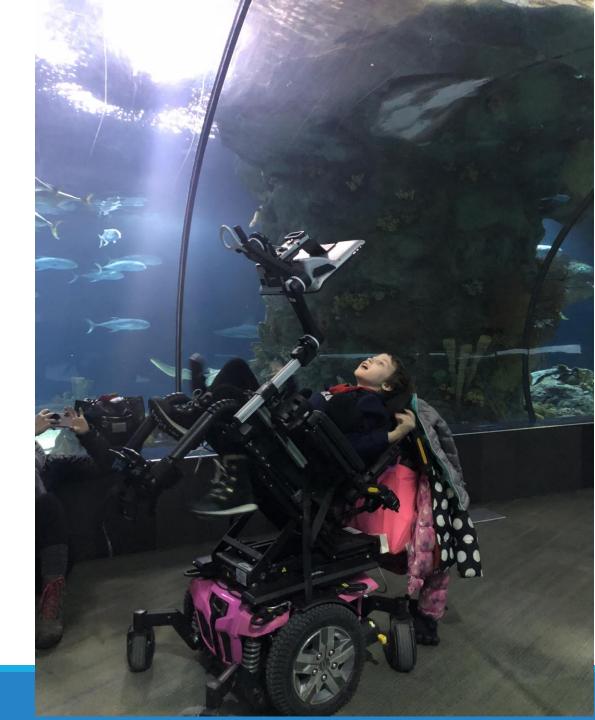


# Mount Tilts & Moves With the Chair





Brea tilts her chair to take a picture of the fish swimming above using her communication device with eye gaze!



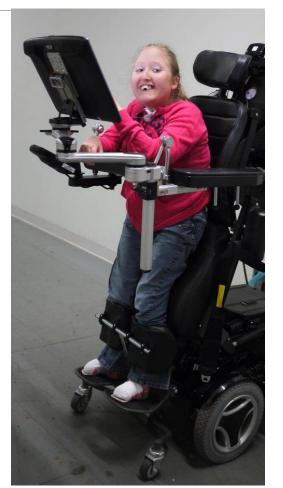
#### Move For Visual Access

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!





# Multi-tasking

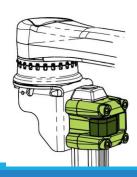


Double Decker
Dual Arm and Tilt'n Turner

Offset Link Cube to allow lower placement on post for Double Decker



One tray holding 2 items



#### 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



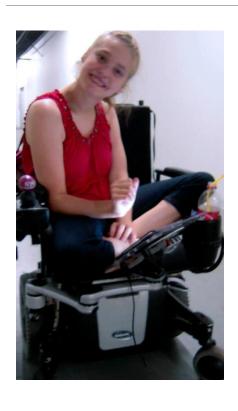
# Operating Positions Adjustability

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)

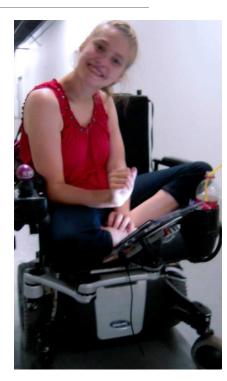
#### Access to computer table

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 stabilized 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

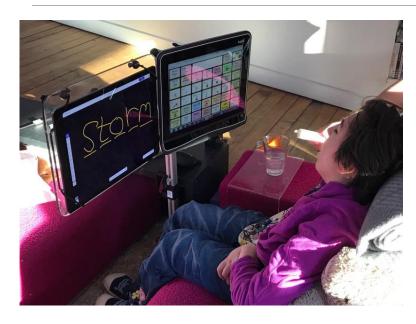
Solution: Floor Stand, Dual Arm, Stand +90 with

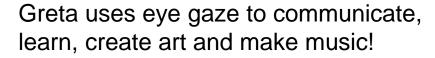
**Universal Rotator** 





# Easy Mover - Eye Gaze







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

#### Greta the Artist

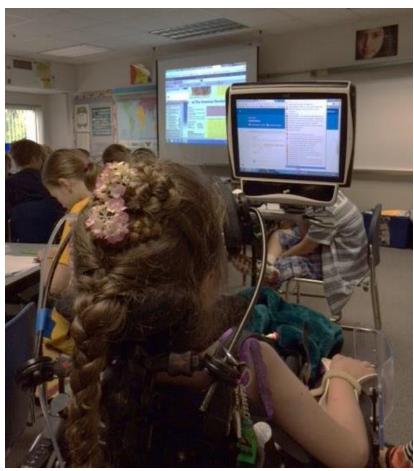


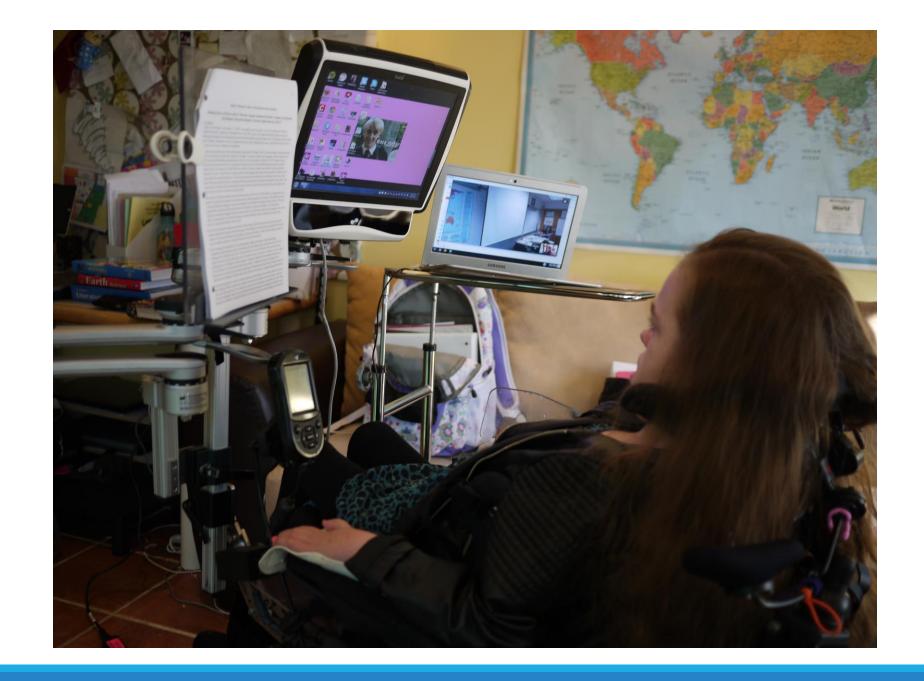
http://studiogreta.co.uk/

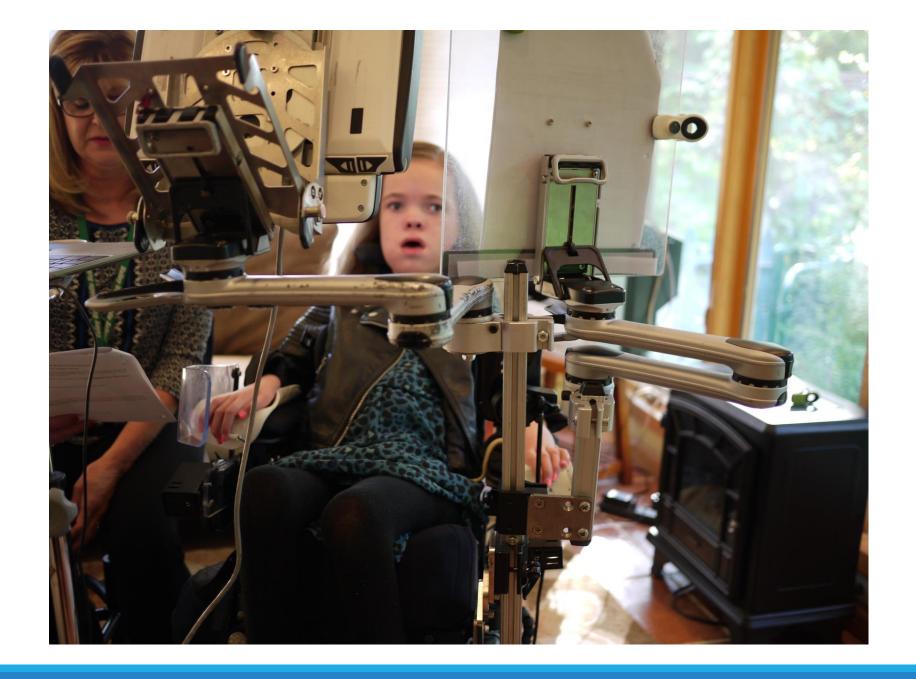
# Eye Gaze



At home and school!

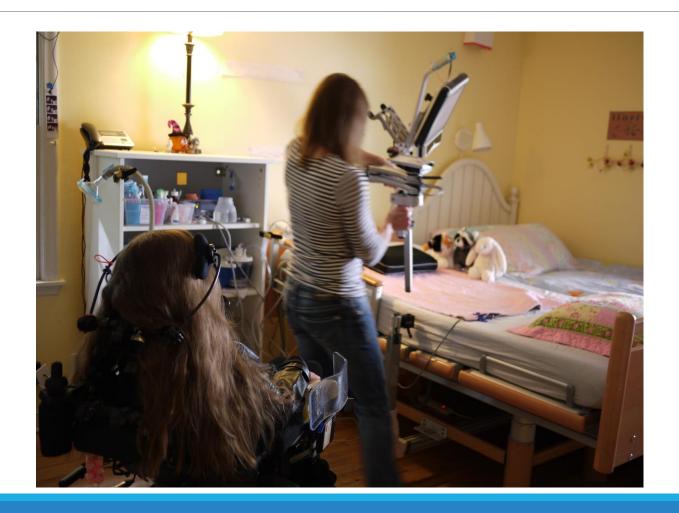


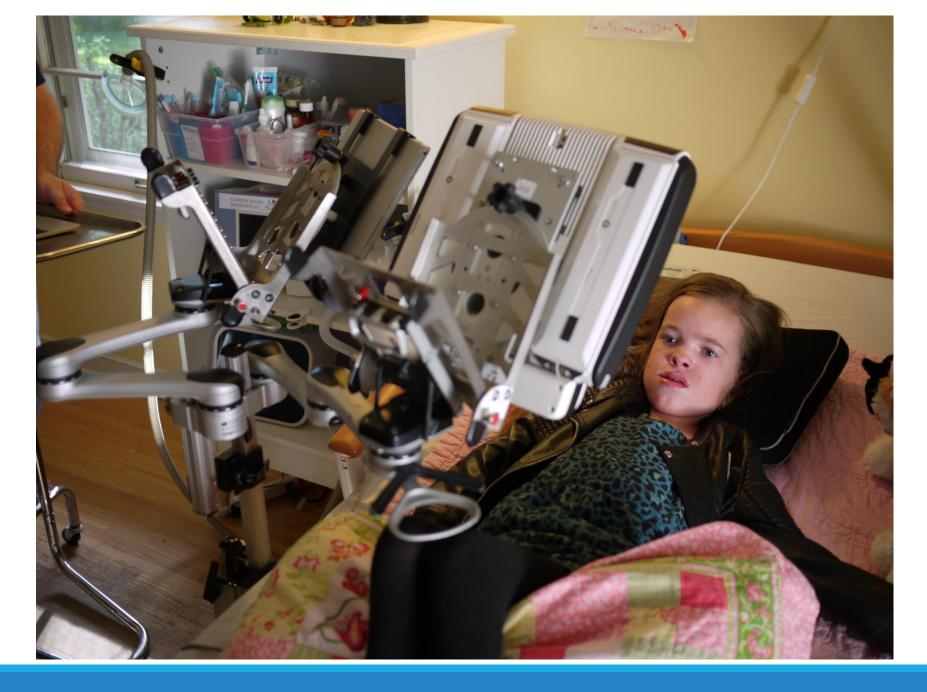




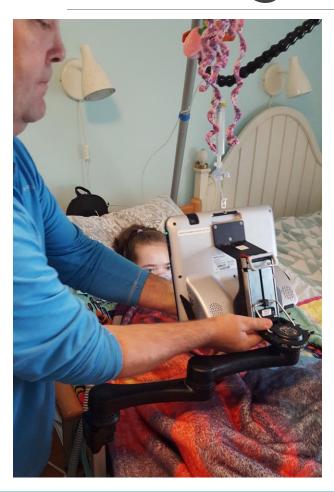


### Move from Chair to Bed





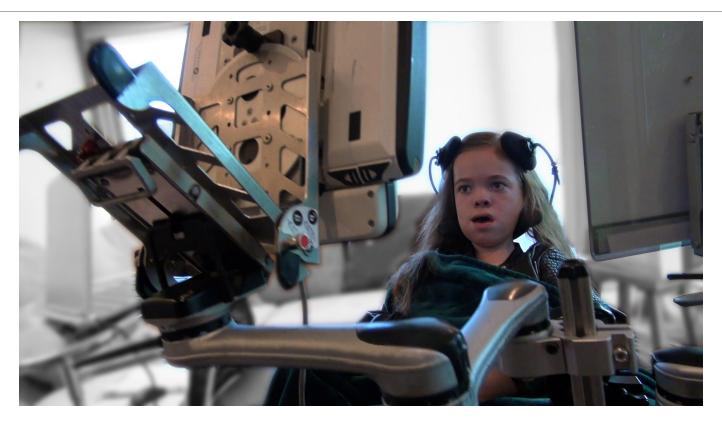
# Update - Easy Mover with Locking Tilt Plate





Sophia now uses an Easy Mover. The family Finds it easier for the multiple caregivers to use.

#### 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!



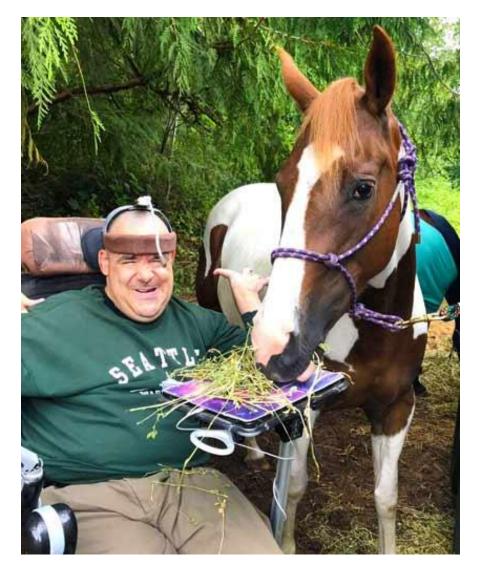


### Functional Needs Think Outside the Box!











### 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



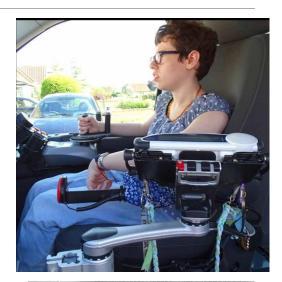
**Table Eval Kit** 

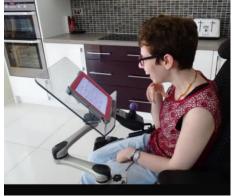
# Grows with Client to Meet Changing Needs



**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



### The pow!r mount

#### A powered mounting and positioning system

- 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



## 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

Brea uses the Pow!r Mount to bring her eye gaze communication device into position.



### Custom Pow!r

Shane has a custom Pow!r mount fitted to his chair. With it, he can raise and lower his joystick with the push of a button, allowing him to access his laptop or joystick whenever he pleases instead of having someone move it for him. Allowing him to access his laptop and phone.

For the first time in over 10 years he was able to move his joystick independently!



# Shane moves his joystick!









# New Pow!r Mount Tilt Hybrid System

#### Mount'n Mover with Pow!r Tilt

Single or Dual switch control

#### Three modes of control:

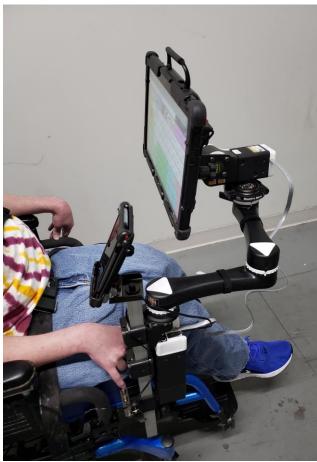
- Alternate directions with one switch
- One switch for each direction
- Go to customizable target positions with one switch



Matt uses a Pow!r Tilt to adjust his device angle using dual Head switches for taking photographs.







# Direct, Single or Dual Switch Access





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



Built-in 12v lead acid battery

Wheelchair battery

AC-DC converter/power supply





## Case Study: Scott

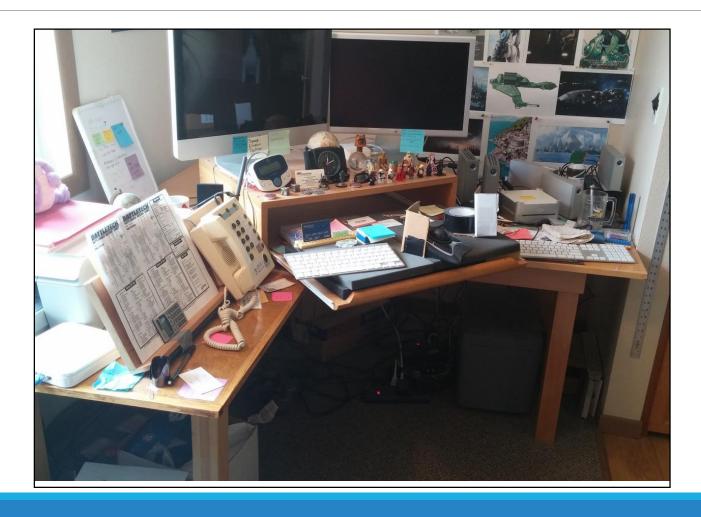
#### Mayo clinicians and BlueSky Designs

#### 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

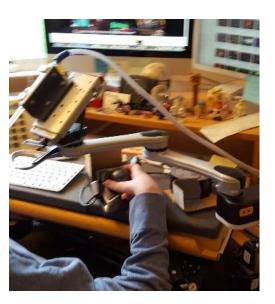
Brings yankauer into position with thumb and MicroLite switch

Actuates suction with index finger and 2<sup>nd</sup> 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**

STEP SELECT	₹ <sup>36</sup> "	€81%	■ 11:35 AM SCAN	
■ Tablet □	ø			
SETTINGS				
Adjust	Open	Touc		
Targets	Open	Touc		
Group Selection	Open	Touc		
End-Cap Control	Open	Touc		
Settings	Open To		Touch Only	
Home Button	Open		Touch Only	
Audio Feedback	On		Off	
Scan Rate	Slow	Medi m	iu <sub>Fast</sub>	

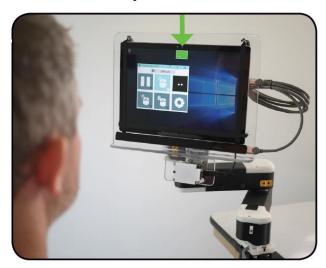
### Future Developments Auto Repositioning



#### A mount that Auto-Repositions a speech device!



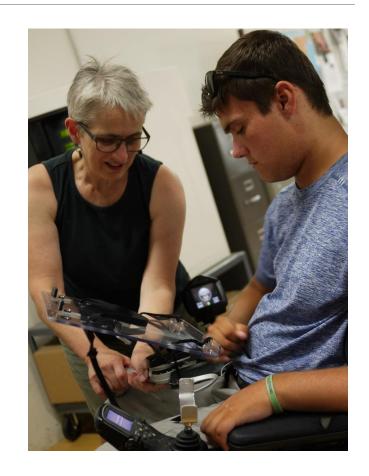
Out of position (not calibrated)



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: <u>www.mountnmover.com/evaluate-buy/funding/</u>

### 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

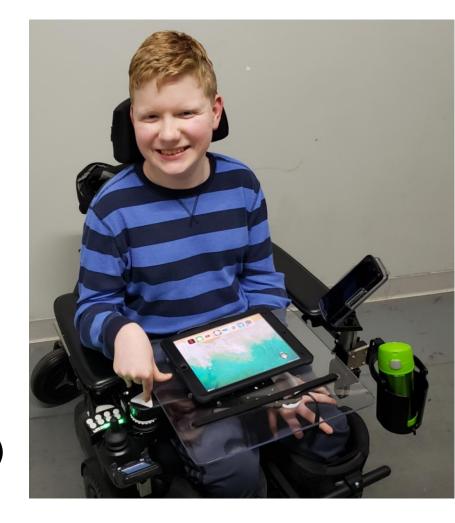
### Health Benefits

#### 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

# Movable mounts promote independence and access

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)



# 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: Decrease:

Competence Frustration

Adaptability Embarrassment

Self esteem 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!



THE MOUNT MENTOR

BlueSky Designs 2637 27th Ave South Suite 209 Minneapolis, MN 55406 612-724-7002 www.mountnmover.com

A Lets get startedfirst we need some informa	tion:	
Contact Person	Client	
Organization	Name	
Name	Street	
Street	City/State	
City/State/Zip	Zip Code	
Phone #		
Email	Client Characteristics	
Wheelchair - Stroller - Walker - Bed	How does client access their device? (Direct select, switch, eyegaze/head tracker?)	
Power wheelchair Walker Stroller Power standing wheelchair Bed	If direct select: (gentle touch, strong touch, or medium touch)  Can client use both arms/hands? Preference?	
Device See website for Device Plate Graph  AAC Make/Model  Phone Make/Model	What is clients range of motion? (Do they have enough range of motion to reach across the midline?)	
(We will need exact dimensions of phone)  Tablet Make/Model	Would a locking or non-locking mount be preferred?	
(We will need exact dimensions for Tray)  Where to Mount	(FYI - the tension on the non-locking mount can be adjusted to require a light or heavy touch to move it)	
Mount to clients right/left side?	NOTES:	
Additional mounting requirements (2nd wheelchair, floorstand, table stand, bed?)		

#### B Attaching the Mount'n Mover ..... pictures are very useful! Please send JPEGS of <u>each</u> of these views









#### **Mount Mentor**

Find this form on our website. Complete the form, take a few photos and return it to us. We will be happy to put together a quote for a mounting system.

Technical support is available via phone, SKYPE, email and photos when attaching to wheelchairs or other environments.

### Videos

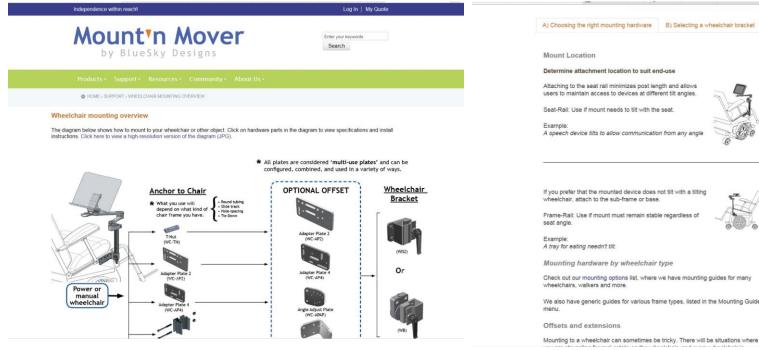
Mountnmover.com

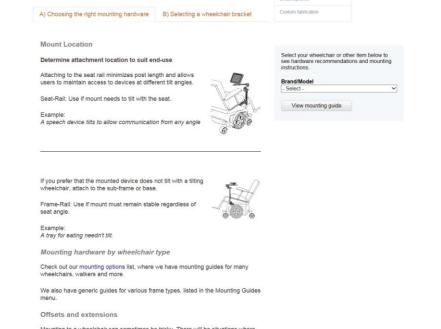
Gae - ALS

Rick - Spinal Cord Injury

Sophia - SMA, Eye Gaze

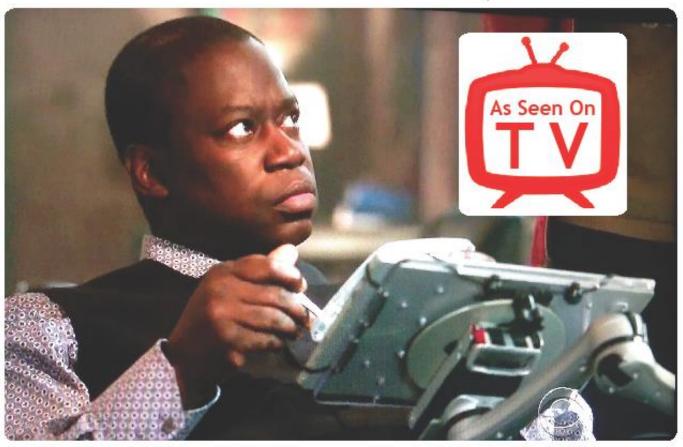
### Support Tab Wheelchair Mounting Overview





### **NCIS: New Orleans**

#### Daryl Mitchell (Patton Plame)



# BlueSky Dream Team







## Thank you!

Questions and Ttch support:

www.mountnmover.com

info@blueskydesigns.us

1-888-724-7002, 612-724-7002

