Family Links Conference
March 14, 2022

# Navigating The world of Assistive Technology (AT)

## Devices, Support and Services

## Presentation Outline:

1. Overview of the Utah Center for Assistive Technology (UCAT)
2. Overview of the Utah Assistive Technology Teams (UATT)
3. Other resources for Assistive Technology across the state
4. Important areas to discuss.
5. Show and tell

# Kent Remund M.S, ATP, CRC

- **OPTIONS for Independence**
  - AT Specialist 1997 - 2001
- **Utah Center for Assistive Technology**
  - Shop guy/AT specialist 2001 - 2008
- **Utah Center for Assistive Technology**
  - UCAT Director/AT Specialist 2008 - 2014
- **Utah Center for Assistive Technology**
  - UATT Project Director/ AT Specialist 2014 - 2020
- **Utah Center for Assistive Technology**
  - UCAT Director/AT Specialist 2020 - Present

# Assistive Technology… What Is It, Exactly?

- **AT has two parts**
  - **AT Devices**
    **and**
  - **AT Services**
- **Let's define them……**

# Boring Definition

An AT device is any item, piece of equipment or product system, whether acquired commercially off-the-shelf, modified, or custom-made that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

i.e.,

"Stuff"

Tech Act Amendments of 1994

# Types of Assistive Technology

- Level of technology
  - High
  - Medium
  - Low

Rule of Thumb

Cost follows level of technology

# Other Boring Definition

An AT service is any service that directly assists an individual with a disability *[or family member or caregiver]* in the selection, acquisition, or use of an AT device.

a.k.a.

## "Help with Stuff"

Tech Act Amendments of 1994

# Key Point

- Often people only think of the device forgetting the professional *services* needed to assure best match of device and requirements.
- Result is waste of resources with abandonment of AT devices.
- 30% of all AT is not used. (JAN 2007)

# What is UCAT?

- Central "Hub" of Utah's AT Program
  - Demo/loan bank
  - Hands-on computer center
  - Heavy-duty shop
  - Eight assessment experts

**Jay Wheeler OTR/L**
-Adapted Driving
-Workstation Design
-Device design/fabrication
801-887-9535
jrwheeler@utah.gov

**Bryce Clayton**
-Vehicle Modifications
-Funding Specialist
801-887-9528
Bcclay@utah.gov

**Tom Boman**
-AT Specialist
-Environmental Controls
801-887-9532
tboman@utah.gov

**Ed Whitting, RT**
-Shop Projects
-Environment Access
801-887-9537
Ewhiting@utah.gov

**Kent Remund, ATP**
-UCAT Director
801-887-9531
Kremund@utah.gov

**Michael Offutt**
-Computer Loan Program
801-887-9536
Moffutt@utah.gov

**Austin Oseguera, CRC**
-Utah Assistive Technology Teams (UATT)
801-887-9534
Aoseguera@utah.gov

**Julia Pearce**
-Utah Assistive Technology Teams (UATT)
801-887-9533
jpearce1@utah.gov

# Utah Assistive Technology Teams

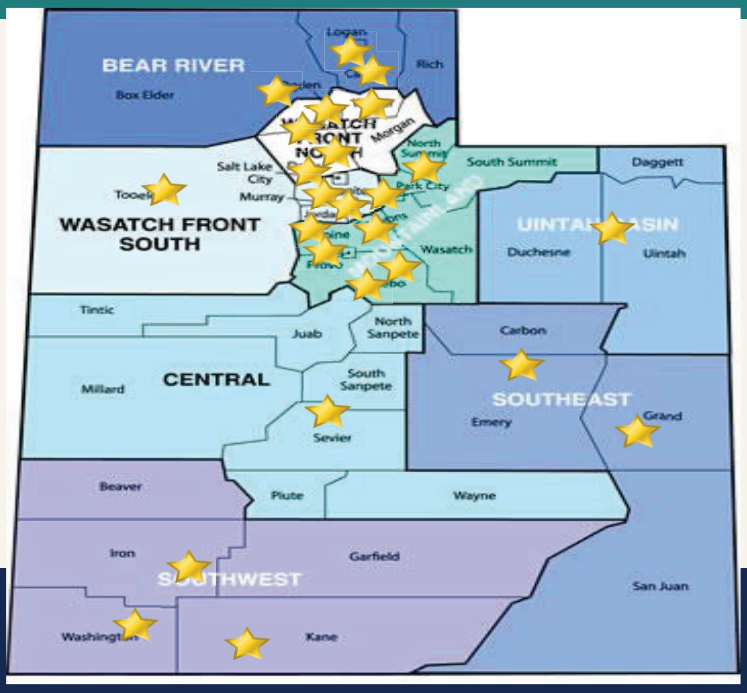
# FAPE

Students with disabilities sometimes need and are entitled to special equipment and services to ensure that they have access to a free and appropriate public education
(FAPE)

On a case-by-case basis, the use of school-purchased assistive technology devices in a child's home or in other settings is required if the child's IEP Team determines that the child needs access to those devices in order to receive FAPE.

**IDEA Sec. 300.105**

# Utah Assistive Technology Teams




30 Teams serve students throughout Utah

# Utah Assistive Technology Teams

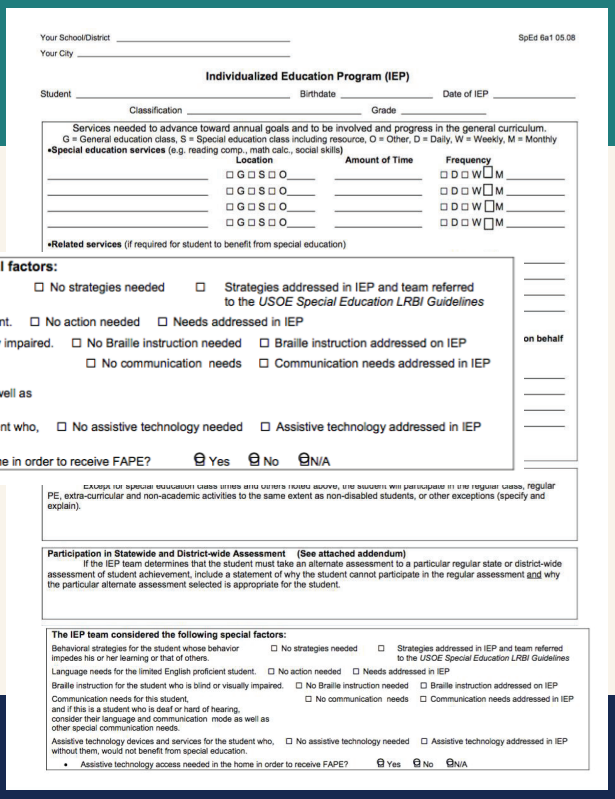
**"In order to support the inclusion and participation of students with disabilities in regular education classrooms, all IEPs developed for children identified as needing special education services, must indicate that AT has been considered to "provide meaningful access to the general curriculum." (IDEA, 1997).**



Utah Assistive Technology Teams

# IEP Consideration

IDEA legislati
considerati
technology
Individualize
lan to supp
participation in his/her least restrictive learning environment.



Your School/District _____ SpEd 6a1 05.08

Your City _____

**Individualized Education Program (IEP)**

Student _____ Birthdate _____ Date of IEP _____

Classification _____ Grade _____

Services needed to advance toward annual goals and to be involved and progress in the general curriculum.
G = General education class, S = Special education class including resource, O = Other, D = Daily, W = Weekly, M = Monthly

| •Special education services (e.g. reading comp., math calc., social skills) | Location | Amount of Time | Frequency |
|---|---|---|---|
| _____ | ☐ G ☐ S ☐ O_____ | _____ | ☐ D ☐ W ☐ M _____ |
| _____ | ☐ G ☐ S ☐ O_____ | _____ | ☐ D ☐ W ☐ M _____ |
| _____ | ☐ G ☐ S ☐ O_____ | _____ | ☐ D ☐ W ☐ M _____ |
| _____ | ☐ G ☐ S ☐ O_____ | _____ | ☐ D ☐ W ☐ M _____ |

•**Related services** (if required for student to benefit from special education)

**The IEP team considered the following special factors:**

Behavioral strategies for the student whose behavior impedes his or her learning or that of others. ☐ No strategies needed ☐ Strategies addressed in IEP and team referred to the *USOE Special Education LRBI Guidelines*

Language needs for the limited English proficient student. ☐ No action needed ☐ Needs addressed in IEP

Braille instruction for the student who is blind or visually impaired. ☐ No Braille instruction needed ☐ Braille instruction addressed on IEP

Communication needs for this student, and if this is a student who is deaf or hard of hearing, consider their language and communication mode as well as other special communication needs. ☐ No communication needs ☐ Communication needs addressed in IEP

Assistive technology devices and services for the student who, without them, would not benefit from special education. ☐ No assistive technology needed ☐ Assistive technology addressed in IEP

- Assistive technology access needed in the home in order to receive FAPE? ☐ Yes ☐ No ☐ N/A

on behalf

Except for special education class times and others noted above, the student will participate in the regular class, regular PE, extra-curricular and non-academic activities to the same extent as non-disabled students, or other exceptions (specify and explain).

**Participation in Statewide and District-wide Assessment (See attached addendum)**

If the IEP team determines that the student must take an alternate assessment to a particular regular state or district-wide assessment of student achievement, include a statement of why the student cannot participate in the regular assessment and why the particular alternate assessment selected is appropriate for the student.

**The IEP team considered the following special factors:**

Behavioral strategies for the student whose behavior impedes his or her learning or that of others. ☐ No strategies needed ☐ Strategies addressed in IEP and team referred to the *USOE Special Education LRBI Guidelines*

Language needs for the limited English proficient student. ☐ No action needed ☐ Needs addressed in IEP

Braille instruction for the student who is blind or visually impaired. ☐ No Braille instruction needed ☐ Braille instruction addressed on IEP

Communication needs for this student, and if this is a student who is deaf or hard of hearing, consider their language and communication mode as well as other special communication needs. ☐ No communication needs ☐ Communication needs addressed in IEP

Assistive technology devices and services for the student who, without them, would not benefit from special education. ☐ No assistive technology needed ☐ Assistive technology addressed in IEP

- Assistive technology access needed in the home in order to receive FAPE? ☐ Yes ☐ No ☐ N/A

Dmvetlaeneopl rdnaieg drsodier (DRD) is the most cmmoon lernnaig dtliasiiby. Diyesxla is the msot rcizengoed of readnig drrdiseos, heweovr not all reaidng doirrdess are lnekid to deliyxsa.

Some see dsyelixa as disticnt form rinadeg dfcitfiliues rusinletg from ohetr casues, such as a non-nolceiraugol dcicfieney with viosin or hnrieag, or poor or iqdutaaene rieandg itrocusntin. Tehre are terhe prseopod ciinvtgoe stbueyps of dyislexa (auridtoy, vausil and anntiaettol), ahlgtuoh idnaiviudl cesas of dxisylea are bteter enxpleaid by siiepfcc unylendirg neoropsyocchlgiual dtifceis and co-ourrcincg lnanerig diieitbalsis (e.g. aitntteon-defciit/hatvceripyity diodresr, math dsbtailiiy, etc.). Algtohuh it is crnsiedeod to be a rvpetiece lgguaane-bsead linnearg datbsiiily in the rrcesaeh lietrtarue, dxislyea aslo actfefs one's eiprvxssee laggnuae skills. Rhacrereses at MIT fnoud taht peolpe with deliysxa ehitiexbd iraeimpd vcoie-rioieotngcn aibieltis.

# AT Consideration

| AREA – Academics: | Need AT? ☐ Yes ☐ No |
|---|---|
| Reading: | Use of pictures/symbols with text; talking electronic devices to speak challenging words; audio books; electronic books; use of electronic text-to-speech software |
| Written Expression: | Graphic organizer; word processor with spell checker; word predictions; electronic spell checker/dictionary; adapted paper; alternative writing utensils (including grips); talking word processor; slant board; prewritten words/phrases on cards or pocket charts; voice recognition software |
| Math: | Abacus, number line; software for object manipulation; calculator; with/without large keys/display/voice output; special paper for number alignment; enlarged math sheets; grid paper; manipulatives |
| Executive Functions, Learning/Study: | Print/picture schedule; aids to find materials (color coding…); electronic organizer; educational software; highlighting text; pagers/electronic reminders; duplicate books; smart pen |
| AREA – Sensory: | Need AT? ☐ Yes ☐ No |
| Hearing: | Signaling device; closed captioning; loop system; FM system (personal or classroom) |
| Vision: | Magnifier, screen magnifier; screen color contrast; braille materials; braille translation; enlarged or braille labels for keyboard; enlarged materials; alternate color text/background; talking word processor; large cursor; enlarged books |
| Tactile/Movement: | Weighted vest/blanket/ etc.*; movement cushion; specialized seating; fidget toys; chew toys<br>*Consult Occupational Therapist to ensure safe implementation |
| AREA – Communication: | Need AT? ☐ Yes ☐ No |
| Expressive/Receptive/Functional: | Communication board with pictures/words/letters/objects; eye gaze frame; voice output device; scanning board; repetitive /predictable books |
| AREA – Physical Access: | Need AT? ☐ Yes ☐ No |
| Environmental Control: | Appliance controls; battery operated toys/learning aids; key-guard; alternative keyboard; word prediction; track ball/joystick/head mouse; switch scanning; on screen keyboard; adaptive switches; adapted eating/drinking/dressing/hygiene tools; alternative access software |
| Positioning/Mobility/Seating: | Non-slip surface on chair; cushion; footrest; adapted or alternate chair; custom seating system; stander; positioning aids; hand/arm support; lap tray; walker; grab bars/rails; wheelchair; crutches; parallel bars |
| AREA – Computer Access: | Need AT? ☐ Yes ☐ No |
| Computer Access: | Touch screen; adapted mouse, joystick, trackball; key guard; head mouse; switch/switch adapter; switch with scanning; on-screen keyboard; text to speech; word prediction; on-screen keyboard; alternative keyboard; speech recognition; touch pad; eyegaze |

Adapted from Payson Unified School District #10

# Assistive Technology Resources Across Utah

- Utah Center for Assistive Technology (Vocational Rehabilitation)
- Utah Assistive Technology Teams
- Utah Independent Living Centers
- Division of Services for People with Disabilities
- Utah Assistive Technology Program (Logan, Uinta Basin)
  - Refurbished mobility devices – Customized devices – Small grants – Low interest loans

# UCAT Continued

- Evaluation of needs
- Help with device selection
- Custom device fabrication or mod
- Trial of various PC access devices
- Home- and jobsite assessments
- Trial loan of devices
- Assess voice-input aptitude
- Funding advice

# Demo/Loan Bank

- Library of devices a client can check out for a trial at home
- Assessment process narrows the choices to the one that seems best
- Client tries it at home for up to a month
- Once success is demonstrated, we can recommend purchase with confidence

# What Can AT Do?

- Restore functional capabilities
- Mitigate the impact of a disability
- Increase independence
- Enhance the education process
- Aid an individual to become more employable or possibility of advancement.

# What does "AT" look like?

- AT can be sorted into 7 general types
  - based on the primary function
- These aren't chiseled in stone
  - Some may fit into more than one
- Let's look at the categories

# Types of Technology

- Augmentative alternative communication (AAC) devices
- Aids to daily living
- Electronic aids to daily living (EADL)
- Alternative PC access devices
- Seating and positioning aids
- Ramps and lifts
- Mobility aids

Let's look briefly at each of them

# AAC Devices

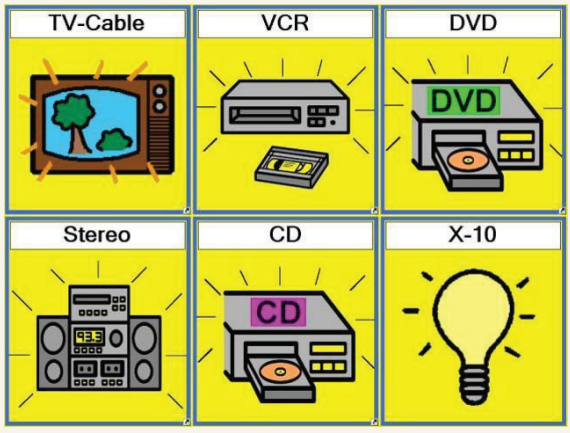
- Allow non-verbal people to communicate
- Low to high tech solutions

# Aids to Daily Living

- Help with many basic tasks
  - Pen and pencil holders
  - Bent-handled eating utensils
  - High-backed plates
  - Sock-donning aids
  - Reachers and grabbers
  - Memory aids (PDA, Cell phones)

# Electronic Aids to Daily Living

- Turn on and off lights
- Control the environment
- Temperature
- Phone calls




- Alexa/Google Home/ Siri

# Alternative Computer/Tablet Access

- Various non-traditional ways to access a device
  - Trackball
  - Glide pad
  - Joystick
  - Single- & dual-switch scanning
  - On-screen keyboard
  - Voice-input technology
  - Alternative mounting of controls

# Seating and Positioning Aids

- Various ways to ensure posture is the best it can be
  - Specialized cushions
  - Customized head supports
  - Customized torso supports
  - Transfer benches

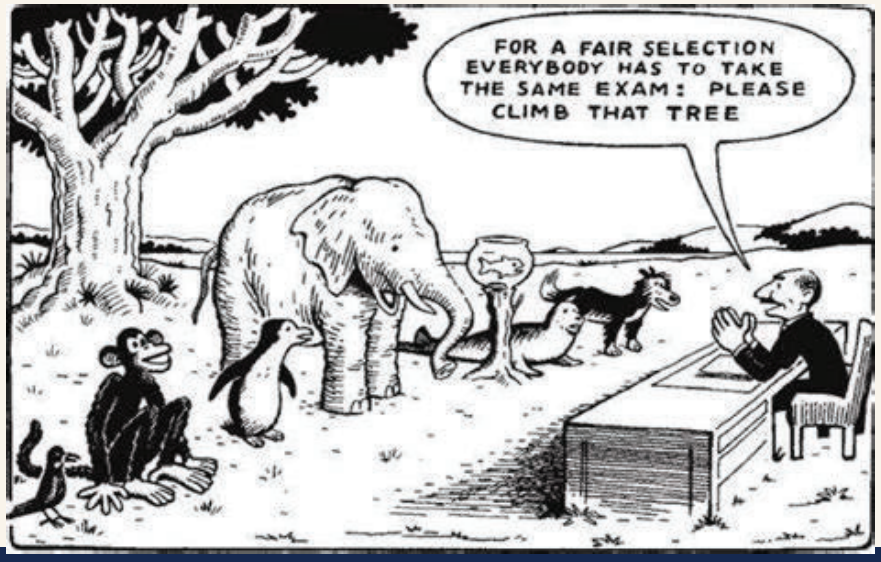
# Ramps and Lifts

- Essentially, these are ways for people with mobility impairments to move to different levels in a building
  - Stair glide
  - Platform lift
  - Porch lift
  - Ceiling lift
  - Entry ramp

# Mobility Aids

- Canes
  - conventional
  - four-footed
- Walkers
  - No-wheeled
  - 2-wheeled
  - 4-wheeled
- Wheelchairs
  - manual
  - Powered

# Universal Design for Learning

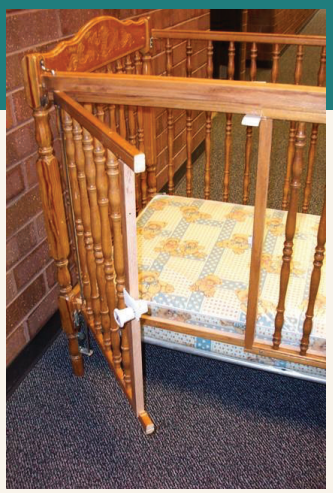


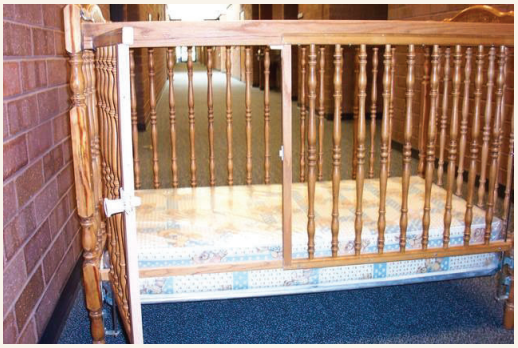

# Universal Design for Learning

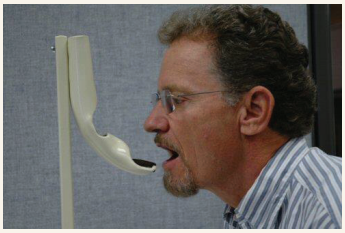
- Read&Write for Google
- Microsoft word
- Google Docs – "Tools" tab > Voice typing
- Grammarly – Chrome extension
- PC computers/ Apple Computers
- Cell phones and tablets

# Transitioning Into Adulthood

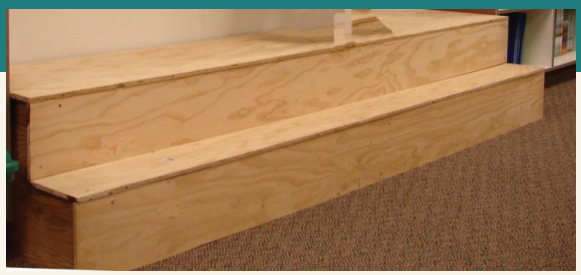
- Utah Board of Education
- Utah Parent Center
- Vocational Rehabilitation
- Division of Services for People with Disabilities
- Many others

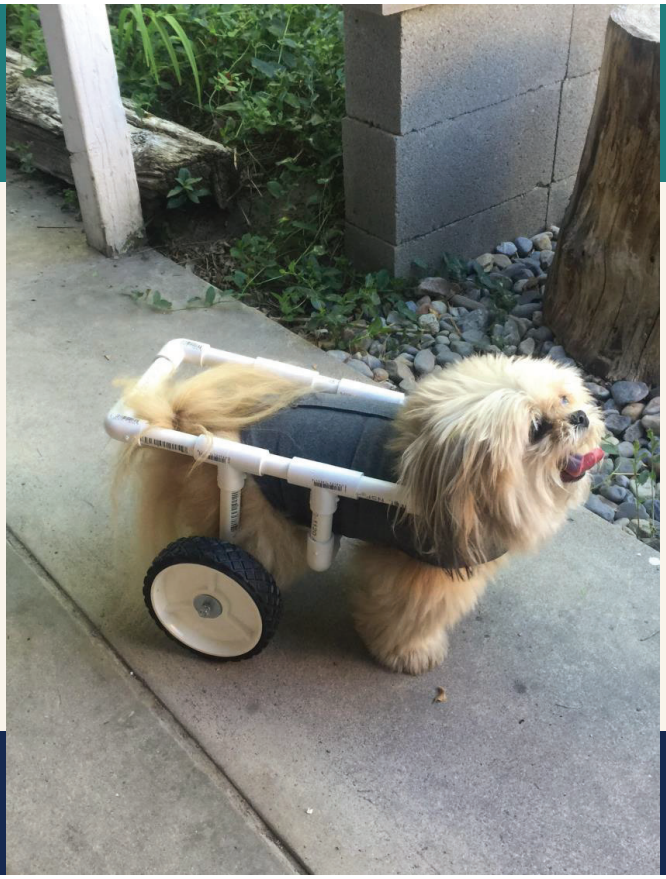






SCHWINN





# Adaptive Bike Trailer

# How to Refer Someone to Us

DWS-USOR UCAT01
Rev. 01/2019

State of Utah
Department of Workforce Services
**ASSISTIVE TECHONOLOGY (AT) REFERRAL FORM**

WORKFORCE SERVICES REHABILITATION
UTAH CENTER FOR ASSISTIVE TECHNOLOGY

**Complete as much information as possible and email to ucat@utah.gov or fax to 801.974.5477**

**TYPE OR WRITE LEGIBLY** Date of Referral: _____

**I.(a) Client Contact Information**

Name: _____ Phone: _____

Street Address: _____ Apt #: _____

City: _____ State: _____ Zip Code: _____ Email: _____

**I.(b) Demographic Information**

Ethnicity:
- ☐ American Indian and Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Does not wish to self-identify
- ☐ Hispanic or Latino
- ☐ Information not available
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White

Date of Birth: _____

Gender: ☐ Male ☐ Female ☐ Does not self-identify ☐ Not available

**I.(c) Disability(ies)** (Cause if available): _____

**I.(d) Contact Person** (Other than client): _____ Phone: _____

Relationship to Client (Mark one):

☐ Parent ☐ Spouse ☐ Child ☐ Caregiver ☐ Other (Specify): _____

| **II. Type of AT Service Requested:** (Mark **ALL** that apply) | | | |
|---|---|---|---|
| ☐ Job- and/or home-site assessment | | ☐ Transportation | |
| ☐ Augmentative Communication | | ☐ Activities of Daily Living | |
| ☐ Educational Assistance Technology | **For services below only:** | ☐ Vehicle Hand Controls | |
| ☐ Alternative Computer Access | ☐ Wheeled Mobility | Height (in) | Weight (lb) |
| ☐ Computer System Recommendation | ☐ Other Mobility | | |
| ☐ PC Loan (VR clients only) | ☐ Seating & Positioning | | |
| ☐ Other (Specify): | | | |

**III. Purpose of Referral** (**Be specific**; include functional limitations and vocational or independent-living goals):

**IV. Other Information That Could Be Helpful to the AT Assessment Process:**

**V. Referring Agent Contact Information:**

Name: _____ Email: _____ Phone: _____

Agency: _____ Office: _____

Other Agency Involvement (if known): _____

A proud partner of the americanjobcenter network

*Equal Opportunity Employer Program*

Auxiliary aids and services are available upon request to individuals with disabilities by calling (801) 526-9240. Individuals with speech and/or hearing impairments may call Relay Utah by dialing 711. Spanish Relay Utah: 1-888-346-3162.

# Questions?

If you think of something later, call or write:
801.887.9531 or kremund@utah.gov