# CREATING AT SOLUTIONS IN MINUTES

#### Curt Johnson, M.S., CRC, ATP

Washington Assistive Technology Act Program (WATAP) U.W. Center for Technology and Disability Studies

© University of Washington

How WATAP Can Help



**Low cost or free programs for consumers** 

- Device Demonstration
- Device Lending
- Device Reutilization
- Alternative Financing
- Information and Referral

Our programs and services are inclusive to all Washington residents

□We can help you through the process

# Assistive Technology (AT) is...

"Any item, piece of equipment or product system, whether acquired commercially, off-the-shelf, **modified or customized**, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities."

Assistive Technology Act, 1998

### Assistive Technology (AT) is...

# FUNCTIONAL OUTCOMES

## **Functional Solutions**







# CONSIDERATIONS

- Personal comfort level/mechanical knowledge
- Awareness of Methods and Techniques
- Awareness of Material and Tools: Odor, Sharpness, Abrasiveness, Caustic, Heat
- May not be permanent (Rapid Prototyping)
- Awareness of environment (fabricating / end use)

# EVERY DAY PROBLEMS!!

- Commercial Device Not Available
  Attaching
- Positioning
- Supporting/Stabilizing
- Temporary Solution

### As Simple as Duct Tape

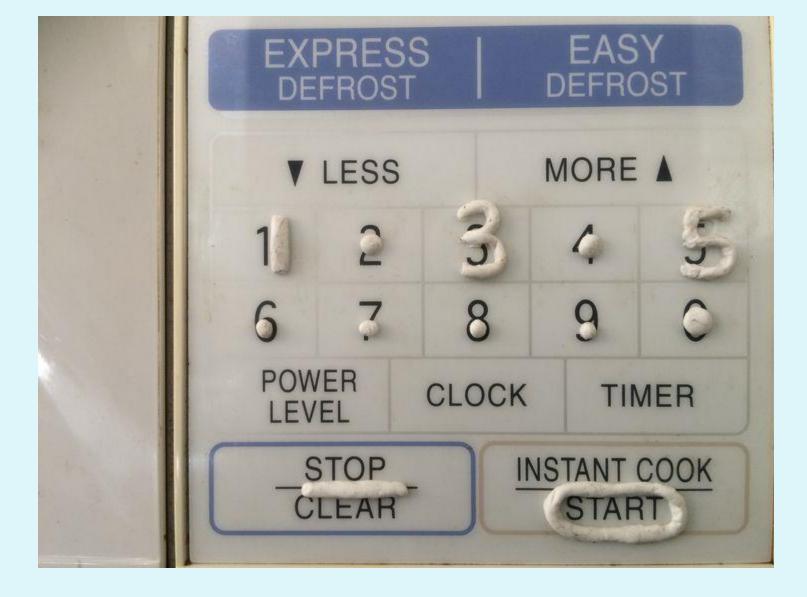
Require creative problem solving

□ Are usually inexpensive

Materials found in-house or locally







# **Tablet Fine Motor Deficits**

- Pinching
- Turning
- Holding
- Grasping
- Button Pushing





# Other uses for paper & binder clips

- Attaching switches
- Hot glue to 3 ring binder







# Client/Family Driven Design



# **Cabinet Bumpers**











# Tapes

- Reflective Tape
- 🗆 Gorilla Tape
- Rug Gripper



- Self Adhesive "Tommy Tape"
- Exterior Interior Mounting Tape
- Clear Mounting Tape "VHB"



# Pipe Wrap





# **Pipe Insulation Door Lever**





Make a one-handed document holder. Individuals who only have the use of one hand may experience difficulty in using a traditional document holder that has a clip on it. To make a one-handed document holder use a

notder that has a cup on it. To make a one-handed document notder use a piece of acrylic, dual lock, and LOK-LIFT\* Rug Gripper. Cut and deburr

a 16 x 1 inch strip of acrylic. Take a ruler and mark the acrylic 10 inches from the left edge. Turn the acrylic upside down and heat along the line and bend the acrylic to 15 degrees or other desired angle. On the 6 inch and being the actylic to 15 degrees or other desired angle. On the 6 inclusion of the actylic, apply a piece of Dual Lock<sup>TM</sup>. Also apply a 6 inch blue of the acryne, apply a piece of Dual Lock™. Also apply a 6 inch piece of dual lock to the top left edge of the computer monitor. Apply a 10 inch strip of LOK-LIFT<sup>∞</sup> RG to the left hand side of the acrylic. It men strip of LOK-LIFT KG to the left hand side of the acrylic. Secure the document holder to the top of the computer monitor. You can Secure the document holder to the top of the computer monitor. You can also the document holder by pinching it into the Rug attach the document to the document holder by pinching it into the Gripper. The document can be removed and replaced with a new document of the document without the RG coming of the document of the docume Oripper. The document can be removed and replaced with a new document to be typed without the RG coming off of the document holder or tearing the back of the paper. You can also make another one-handed document holder. Get an 8 ½ x You can also make another one-handed document holder. Get an 8 ½ A 11 inch piece of acrylic. Mark a 1 inch section at the bottom, heat and band unward at a 45 degree angle. Attach this niece vertically to the left. 11 men piece of acryfic. Mark a 1 inch section at the bottom, heat and bend upward at a 45 degree angle. Attach this piece vertically to the left side of the manifest using two acryfic L brackets that you attach to the side bend upward at a 45 degree angle. Attach this piece vertically to the left side of the monitor using two acrylic L brackets that you attach to the side of the monitor using Dual Lock M. Attach the L brackets to the document side of the monitor using two acrylic L brackets that you attach to the side of the monitor using Dual LockTM, Attach the L brackets to the document holder using without LockTM or double-sided elear mounting for of the monitor using Dual Lock<sup>7,4</sup>. Attach the L brackets to the docum holder using either Dual Lock<sup>7,4</sup>. Attach the L brackets to the docum holder using either Dual Lock<sup>7,4</sup> of double-sided clear mounting tape. Apply a piece of LOK-LIFT<sup>®</sup> RG to the table or counter top to keep a plate or bowl from sliding. The RG will keep the plate or bowl from Apply a piece of LOK-LIFT RG to the table or counter top to keep a plate or bowl from sliding. The RG will keep the plate or bowl from sliding when food is being cut, scraped, or mixed blate or bowl from sliding. The RG will keep the plate or bowl from sliding when food is being eut, scraped, or mixed. Use LOK-LIFT® RG to stabilize an adapted utensil so to prevent this from unsubation will slide around on an adapted utensil so to prevent this from Use LOK-LIFTE RG to stabilize an adapted utensil. Sometimes the pipe insulation will slide around on an adapted utensil so to prevent this from theorem and the pipe insulation. insulation will slide around on an adapted utensil so to prevent this from happening apply a piece of RG first and then add the pipe insulation. Place a strip of RG in front of a keyboard or underneath a wrist/pain rest to keep them from sliding around. Place a stop of RC in front of a keyboard or underneath a wristreatm re to keep them from sliding around. Apply a plece of LOK-LIFT RC to the bottom of a toy mount to keep it from sliding. Many toys are sublified vertically using a plece of Dual from sliding.

Apply a piece of LOK-LIF T& RG to the bottom of a toy mount to keep it Apply a piece of LOK-LIF T& RG to the bottom of a toy mount to keep it from two on the bottom of sublined vertically using a piece of Dual LOK As 4 inch Piece of a cryptic transition, construct a V shared on the under the bitter of the vertical transition. The addition of the V shared on the bitter of the bitter of the vertical transition of the top the transition makes and the bitter of the vertical transition. The shared on the bible the bitter of the vertical to the top t

Microl

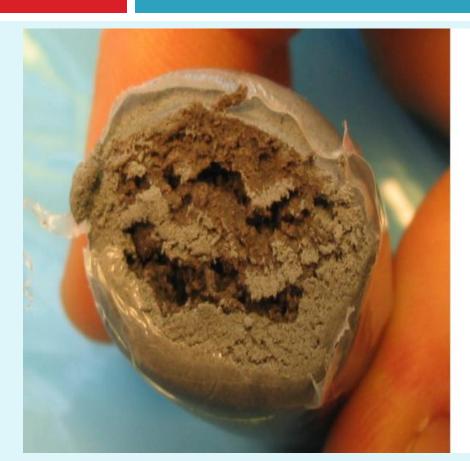
Solosta

Penny Gill Frank Hall P

MANANANANANANAN

the wheelchair.

# **Epoxy Putty**





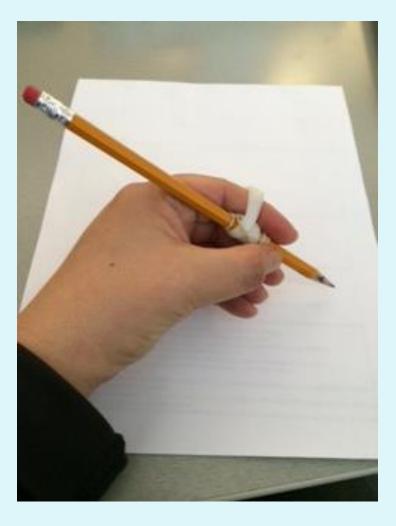


# **Moldable Plastic**

- Moldable at a relatively low temperature (60°C / 140°F); just hot water
- Hardens at room temperature
- Can be remolded
- Color crystals can be added
- Amazon
- □ \$22.50



# InstaMorph Solutions



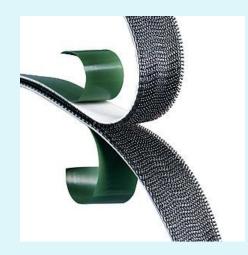


### **Velcro Solutions**

- Less Durable
- Not as Reliable
- Less Expensive
- Easy to Find
- Industrial Strength



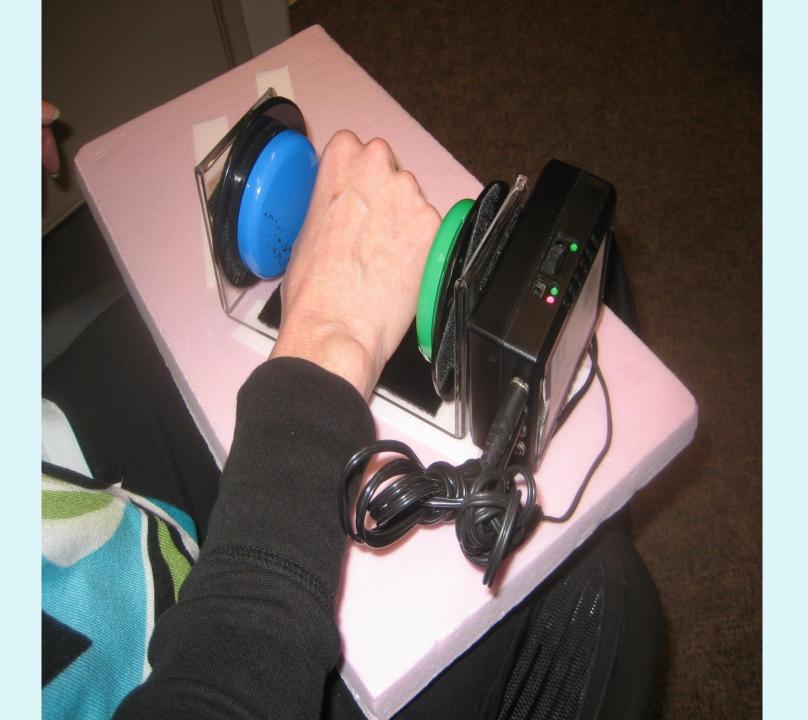
- Dual Lock (3M Product)
- Superior holding power
- More difficult to find







# **Pink Board**



# Pipe (PVC / CPVC / ABS)











## OTHER MATERIALS

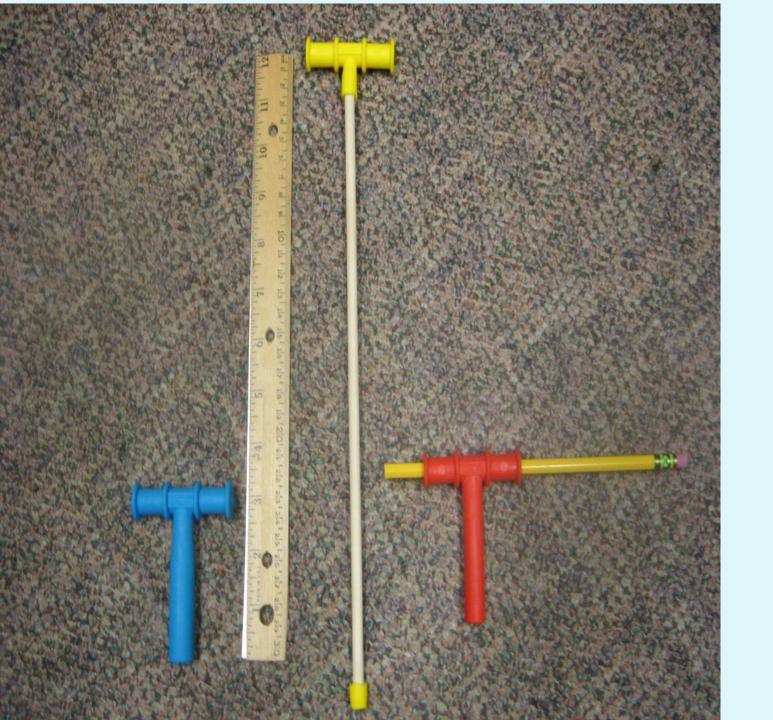
- Zip Tie Cable
- 17" industrial Twist Tie
- Chewy Tubes
- Aluminum Wire
- Flag Pole Holder
- Puff Paint
- Loc-Line



All Those Strange and Forgotten Desk Drawer Items









- Considerior with physician respirers, wheel present an one recallend ethabilitation computer

Aperent 1984

-

## Uniger Frateris

Weathend adultation because an beauty or a service which allows adored in and conditioning a conduct of











## Washington Assistive Technology Act Program WATAP

University of Washington (800) 214-8731 Toll-Free Hotline (206) 685-4181 V (206) 616-1396 TTY (206) 543-4779 Fax

http://watap.org/

http://uwctds.washington.edu/

Email: watap@uw.edu