

“Make Your Own” Tech Still Works for Many

We live in an increasingly high-tech world. From bionics to advanced operating systems, technology aids our daily lives. There are some amazing cutting edge, high-tech assistive technology (AT) products on the market, such as mobile apps that can help blind users navigate cities without using low-tech canes, and robotic devices that can help children with Autism learn how to better communicate. However, you may not need such sophisticated products for



Source: Oklahoma ABLE Tech (www.ok.gov/abletech)

every task you want to perform. You can develop many of your own low- to medium-tech Do-It-Yourself AT (DIY AT) to help you perform many tasks.

The idea behind DIY AT is to create your own assistive devices. More Americans are opting to explore simpler alternatives to high-tech AT for a variety of reasons. Some feel these “off-the-shelf” products are unable to adapt with them as they change. Others simply are unable to afford the high-tech AT devices they would like or don’t

want to spend money on a high-tech device. Whatever the case for you, developing a DIY device can be an effective – and often relatively inexpensive – way to assist you in the short-term or permanently in performing various tasks.

Many DIY devices can be made with common items you may already have around your house. You may have even developed some already and did not know they were referred to as DIY AT in the AT community.

Examples of Low-Tech DIY AT That May Help You

If you experience balance or trunk stability issues, anti-slide seating is often necessary – though it’s expensive to buy specialty chairs for every room. A quick fix for you may be to create an anti-slide seat using a roll of textured or spongy non-slip material. Simply cut out a square of material large enough to cover the seat bottom of the desired adaptive chair. Once the square is attached to the seat, you end up with an anti-slide chair.

“Built up,” or large grasp, utensils make for another easy DIY device. Weak grasping patterns can make it hard to hold onto items with small handles such as toothbrushes, pencils, or silverware. While lots of companies offer many utensils with built up handles, you may want to try to create your own. You can make the handle larger on any utensil by wrapping it with rubber bands or sponge hair curlers.

You may find that a picture-style communicator is an important tool for you if you have speech disabilities. You may want to create your own using a cutting board and Velcro adhesive. Simply find small, laminated pictures, or words, and attach Velcro adhesive to them. Attach strips of Velcro to the cutting board and place the laminated pictures and words on the board as you wish.

An adaptive crayon holder is pretty easy to make for those with grasping and fine motor skill disabilities. A simple device can be made by taking a small plastic container with a lid, such as a spice/herb bottle, pill bottle, vial or film canister, cutting an "X" in the bottom and top, and inserting a crayon through the "X."

These are examples of low-tech DIY AT, however, if you have the technical skills, you may also be able to create medium-, or even high-tech DIY AT. There are all sorts of options from creating adaptive switches to assist you in operating musical instruments or battery-operated toys, to using 3D printers to create prosthetics.

AbleData DIY Devices

A great resource for finding low-tech assistive devices is the “DIY” section of AbleData at (bit.ly/1ufJAmx). Our site features over 1,000 entries of DIY devices, each with a description and information on how to make them.

Other Online DIY AT Community Resources

There are thousands of DIY AT products to be discovered online. Using resources such as search engines and social networks can assist you in finding a treasure-trove of DIY ideas, information and instructions.

If you are not sure where to begin, start your search on these resources using general phrases such as “DIY occupational therapy gadgets,” “DIY assistive technology,” “low tech assistive technology,” or “homemade assistive technology”. You can narrow your results from there.

If you have an idea of what you are looking for, search for phrases describing the type of need you want to address or product you are seeking. If you are blind and you want to find out about various DIY AT to assist you, try searching for “blind DIY assistive technology.” If you are looking to figure out a way to help you with using your television remote control, try searching for “remote control DIY assistive technology.”

Now that you have a bit more information on DIY AT, next time you are looking for a new device, you may want to consider creating your own.

References

Haus, S. What is Assistive Technology? A Basic Guide for Individuals and their Family Members. Retrieved June 25, 2014, from <http://www.iidc.indiana.edu/?pageId=2504>

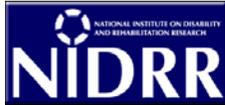
Hurst, A., & Tobias, J. Empowering Individuals with Do-It-Yourself Assistive Technology. *Assets* 2011, 11-18.

Amar, N. (2012, July 22). Crayon Review. Retrieved July 22, 2014, from <http://missmancy.com/2012/07/>

Reeve, C. (2013, March 19). Cutting Boards and Box Tops. Retrieved June 26, 2014, from <http://www.autismclassroomnews.com/2013/03/cutting-boards-and-box-tops.html>

Top Resources for Finding DIY AT

- ✓ **Search Engines** (e.g., Google, Yahoo!, Bing, etc.) – Search engines provide links to myriad sites that can provide you with DIY information. All you need to do is search for what you need.
- ✓ **Pinterest** Pinterest is a great DIY AT resource as many of the devices displayed have been used, tested, or even created by parents, teachers, and occupational therapists. The site is also helpful as it generally springboards you to another site or blog focused on DIY devices.
- ✓ **YouTube** Demonstration videos make YouTube another great source of DIY AT. Many occupational therapists and teachers post samplings of common DIY AT with step-by-step instructions on the site. Use the search feature to seek out ideas on your specific needs.



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