

TAKE AN ACTIVE ROLE IN DEVELOPING AT THAT WORKS FOR YOU



Example of robotic exoskeleton legs

Do you ever get frustrated by features of your assistive technology (AT) device or product not working properly? Do you ever think, “I like my AT product, but I have ideas that would improve it?” If so, you might consider taking an active role in AT product prototype testing.

What is an AT Prototype?

An AT product prototype is a version of an AT product or part of an AT

product that needs to be tested. A product designer tests AT prototypes with potential users like you to get feedback on ways to improve the product’s design before creating a finished AT product and putting it on the market. AbleData houses a comprehensive [database of AT products](#) from various developers around the world, [including prototypes](#).

What Role Can I Play in Developing an AT Prototype?

You can play a pivotal role by testing an AT product prototype and giving its product designer useful feedback to make sure a finished product is more useful and helpful for customers like you. You can provide valuable insight into how well it does what it is meant to do or make suggestions for improvements. For example, if you have an arm amputation and are testing a robotic arm prototype, you may report that its fingers do not allow you to easily pick up thin items like paper or small items like a keychain. If you have a hearing impairment and are testing a hearing device prototype, you may report that the ear phones need to be larger to make them fit more comfortably on your ears. This type of testing will help to accelerate the process of bringing new AT products to the market.

As an AT tester, you play a key role in the development of AT products to support people with disabilities and those with limitations. Testing also helps to ensure that the AT products being developed are practical, meet the varied needs of users like you and help improve independent living and community participation for many.

What Will I Be Asked to Do When Testing an AT Prototype?

Testing AT product prototypes involves focusing on its usability. Typically, product designers will provide you with an AT prototype and ask you to provide feedback on how well it works and whether it meets your needs. You may also be asked to examine how it performs under certain circumstances or in a particular environment.

Who Can Participate in AT Prototype Testing?

Anyone who meets the product designer's criteria is eligible for AT product prototype testing. Designers may indicate that they need participants of a specific age range, with a certain health condition or limitation, or with certain types and degrees of disabilities. They may also indicate that they need participants who have past experience with a product or service, possess certain skills, or live in a particular location or environment.

Will I Get Paid to Test an AT Prototype?

Many product designers do offer some sort of payment.

Testing to Improve AT in Action

Rehabilitation Engineering Research Centers (RERCs), projects funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), have developed and designed novel devices that were benefited from consumer input at various stages of their development. The following two descriptions are examples of products now available that were improved with user testing and feedback.

- The RERC on Wearable Robots for Independent Living at the New Jersey Institute of Technology designed exoskeleton legs, a wearable robotic device that allows users with spinal cord injury (SCI) to control their stride using their hands and fingers. A Prototype testing with helpful input from users on their comfort, usability, and effectiveness in performing day-to-day tasks improved the final design.
- The Georgia Institute of Technology RERC for Wheeled Mobility in Everyday Life supported development of the StandUp Walker, a stand-assist device combined with a traditional walker that helps individuals with mobility difficulties independently stand up from a seated position. Wheel-chair users provided critical input to inform its design.

How Can I Get Started in AT Prototype Testing?

There are multiple ways you can get involved in AT product prototype testing:

Search Clinicaltrials.gov

Clinicaltrials.gov currently lists more than 200,000 unique studies and is one of the best places to look for product testing opportunities as well as other study opportunities relate to product development. To search the database, you can use terms that interest you, such as 'hearing aid,' 'disability,' or 'wheelchair.' The site also features an advanced search function that allows you to input specific information about the types of studies you are interested in finding.

Ask your providers

Your healthcare providers, such as physical therapists, occupational therapists, or speech language pathologists are often good sources for learning about testing opportunities. They may be able to advise you about specific testing opportunities that meet your situation, and determine if you may be a good fit for participation.

Explore opportunities at local rehabilitation hospitals, research centers, or the Veteran's Affairs (VA) hospital

Many local organizations provide information about research studies seeking participants. Rehabilitation hospitals, VA hospitals, and other research centers are good sources of information on testing opportunities.

Sign up for National Rehabilitation Information Center (NARIC) News and Notes

The NARIC website offers useful information about rehabilitation in general, including current resources and research projects. NARIC provides updates on existing and completed research projects and rehabilitation-related research studies. [Signing up for their weekly newsletter, "News and Notes from the NIDILRR Community and Beyond,"](#) is an effective way to get this information as the opportunities become available.

For More Information

[Contact us](#) at AbleData.

References

Enfield, K.B., Truwit, J.D., (2008). The purpose, composition, and function of an institutional review board: balancing priorities. *Respiratory Care*, 53(10): 1330-1336.

ClinicalTrials.gov, Accessed from: <https://clinicaltrials.gov>

National Rehabilitation Information Center (NARIC) <http://www.naric.com>

NIH, Why Should I Participate in a Clinical Trial?

<https://www.nih.gov/health-information/nih-clinical-research-trials-you/why-should-i-participate-clinical-trial>



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