# Demonstrating Assistive Technology for Electronic Aids for Daily Living (EADLs)

## Knowledge and Skills

A. Understands function(s) of the device type

1. Electronic Aids for Daily Living (EADLs) also referred to as Environmental Control Units (ECU’s) are devices that allow people with a wide variety of disabilities to operate electronic devices (lights, doors, appliances, televisions, etc.) independently through a variety of access methods (switch controlled, speech, smart device, etc.). For individuals with disabilities, EADLs increase independence and privacy while reducing reliance on attendants, family and friends. An increase in motivation and self-esteem, along with a reduction in social isolation are secondary benefits of EADL usage.

B. Understands who can benefit, “eligibility requirements” or misconceptions.

1. Appropriate for individuals who need alternative access to doing tasks due to aging, physical, sensory, and/or cognitive abilities.
2. Beneficial to individuals who experience physical or sensory barriers when performing common household tasks such as opening a door, turning electronic devices on and off, knowing who is ringing the doorbell, etc.
3. Aid individuals who experience cognitive challenges to remembering medications, maintaining calendar and organizing lists, etc.
4. Are generally mid to high-tech devices.
5. There are no eligibility or skill-set requirements to usage.

C. Understands and is able to explain to consumers vocabulary related to devices, features and functions.

1. Stand-alone Environmental Control Units
2. Do-It-Yourself (DIY) Environmental Control Units
3. X-10, Insteon, and Z Wave
4. Infrared
5. Wireless Internet Based Units
6. Controller
7. Peripherals
8. Internet of Things (IoT)
9. Voice Activated
10. Switch Activated
11. Manually Activated
12. Ease of Learning
13. Modularity

D. Able to compare and contrast products types, including features, capabilities, price

1. Plug ‘n Play Units (i.e. Power Link)
2. X-10 and Insteon Units (i.e. X-10 module)
3. Infrared Units (i.e. Relax)
4. Voice Activated (i.e. Pilot Pro)
5. Home Automation: Manual Access (Smart device + app + peripheral)
6. Home Automation: Voice Input (Voice Assistant + peripheral)

E. Able to compare and contrast at least three products in each subcategory, including multiple/diverse manufacturers.

1. Power Link (Plug ‘n Play Units)
2. Primo, X-10 (X-10 Units)
3. Relax (Infrared Units)
4. Pilot Pro, Cintex4 (Voice Activated)
5. WEMO, Insteon, Hue (Home Automation: Manual Access)
6. Amazon Echo, Google Home, Apple Home Kit (Home Automation: Voice Assistant)

F. Able to discuss related technologies.

1. Alternative Access (Switch, Eye Gaze, Head Mount)
2. Wireless Internet Access (Router, Speed, Coverage)
3. Home Modifications (Ramps, Widened Doorways, Automated Doors)

G. Has a basic understanding of potential public funding sources for this technology (e.g. sufficient to make referrals)

1. Overall, very few public funding sources exist to support ECU acquisition.
2. Some state’s offer AT funding, which may include ECU’s, under Medicaid Waiver Programs.

H. Other considerations:

1. Demonstrators should either possess or work to achieve a basic understanding of computer technology, electrical systems, wiring and Wi-Fi.

I. Resources for gaining additional information on this topic.

1. Ablenet ([www.ablenetinc.com](http://www.ablenetinc.com))
2. X-10 (<https://www.x10.com/>)
3. Insteon (<http://www.insteon.com/>)
4. Z-Wave (http://www.z-wave.com/)
5. Smart Home (<http://www.smarthome.com/assisstivetech.html>)
6. Assistive Technology Blog (<http://assistivetechnologyblog.com>)

*This document was developed and produced by the* [*Assistive Technology Act Technical Assistance and Training (AT3) Center*](https://www.at3center.net) *funded by Grant #90ATTA0001-01-00 from the Administration for Community Living (ACL). Any opinions reflected herein are solely the responsibility of the authors and do not necessarily represent the official views of ACL. Last updated April 2018.*