# 6.811 Principles and Practices of Assistive Technology
## Electronic Access Lab (Part 1)

## Station C: Alternative Keyboard/Mice

**Conventional Typing**

For this exercise, you need a laptop computer to obtain a baseline of your conventional typing speed.

1. Go to http://www.typingtest.com/ and conduct a minute-long typing test.

2. Repeat two more times for a total of three trials. Note whether your typing speed (adjusted for errors) has increased or decreased (due to learning effects or fatigue).

**Alternative Keyboards**

Alternative keyboards are designed to make it easier for individuals with certain kinds of fine motor impairments to use a keyboard. People who spend large amounts of time using a conventional keyboard may find it useful to try alternative keyboard layouts.

1. Plug these keyboards into your computer via USB and note your initial reactions to them. Obtain your WPM rate using http://www.typingtest.com/.

2. Switch back to the laptop's regular keyboard. Does it feel more comfortable or ergonomic than these alternative keyboard layouts?

3. How does the Kinesis Advantage Keyboard compare to other keyboards that you have used in the past?

**Alternative Mice**

Compare the differences among the Vertical Mouse, Roller Mouse, and Expert Mouse.

Ergonomic mice are designed to allow your hand to rest in a more neutral position to reduce the stress from a traditional mouse grip. What are the advantages and disadvantages to this design?

The Roller Mouse is designed to be placed in front of your keyboard so you don't have to reach for the mouse. See what happens if you lightly roll the bar left-right and forwards. For more information, read http://ergo.contour-design.com/.

For the Expert Mouse, you can set the button functions to match specific applications. What is the advantage/disadvantage of this?

**Reflection**
1. What kind of effort is required to learn how to use these alternative communication technologies effectively? Once learned, how does the speed of access compare with regular keyboard use?
2. How would this change for highly technical domains that use shorthand or jargon (e.g. programming, legal, medical) that falls outside of standard language models?
   a. What design improvements would you suggest to make these technologies more useful/efficient for assistive purposes?

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Fall 2014