

Community Meeting (May 23, 2018): Laboratory Assistive Devices - Collaboration & Distribution

Description

Presenter: Ronald Song

Notes

- Purpose of project
 - Started as a maker project for 4th year thesis for automation
 - potential for a11y needs
 - Want to make it low cost and based on open source technology
- Basic problem
 - the lab equipment often aren't accessible
 - e.g. small, slippery, small/hard to read labels, etc.
 - the producers of the equipment are most concerned with precision and accuracy
 - assumes an able bodied individual
 - Need to retrofit the equipment, e.g. using a magnifying glass
 - Existing accessible equipment is very expensive
 - You could also hire a lab assistant to run the experiments, however, the question is whether or not the student is actually learning, because they can only observe.
- Maker Revolution
 - parts tend to be inexpensive, flexible, and open source
- Universal Design in Chemistry
 - Most experimental procedures are designed for able students
 - Needs a paradigm shift from learning through physically doing to allow automation
 - e.g. turning a knob on a piece of equipment interacting with something to adjust the setting on the equipment
 - The learning experience doesn't necessarily come from turning the knob, but from analyzing the data