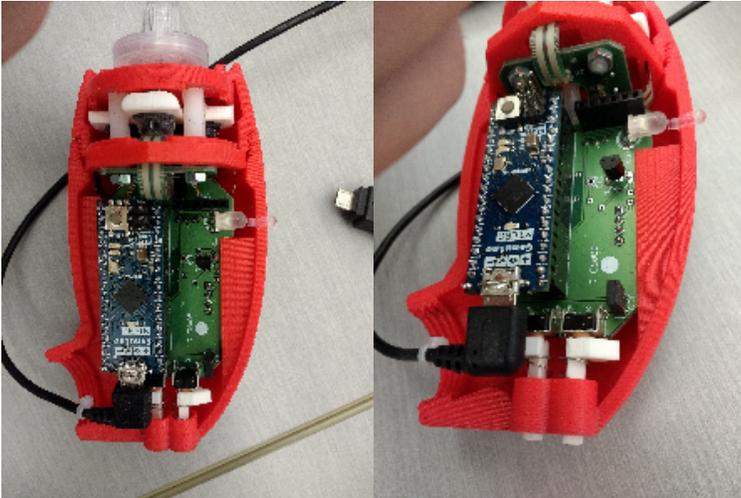# March 13 Design Crit Notes - LipSync

LipSync

- Bluetooth option coming
- no iOS support yet - requires a driver

Hardware parts

- controlled by analog joystick
- adjustable sensitivity using buttons on back
- mouthpiece w filter attached to pressure sensor
- puff - click
- double-puff - double click
- puff and hold - drag
- sip - right-click
- can be customized

If you have a BT device on LipSync - it makes logistics harder as batteries can only be shipped via ground.

Casing is made with ABS 3d printing

Screw mount for mounting.

- affordability and durability is important.

built by volunteers normally.

Ideas:

- can we have an event to make these?

Questions:

- takes about 3 hours to build for people who have never done it.

Mounting is an issue:

- very difficult to mount on a wheelchair as there is limited space for such devices (may already have phone etc.)

Bluetooth: getting the right adapter is tricky - needs to work with broad devices.

Government funding

- ADP - 75% funded, 100% if on social support.
- There are some requirements
    - equipment evaluation process - submitted to gov., clinicians evaluate
    - usually DIY solutions are not included in ADP funded list.

Striking a balance between a medical assistive device and the maker enthusiasm

Is there an advocacy direction for DIY AT solutions?

Shipping Lithium batteries is a challenge

- trying to ship everything inside the unit
- using splitter cable to power via battery pack.

Maintainability everything is easily repaired - can be diagnosed based on the build manual.

- Would like to build up a network to help distribute and maintain

Tetra Society - not enough volunteers, hoping to energize volunteerism from the maker movement

A number of casings were made.

- Adapted from a previous device casing
- boards luckily fit inside
- hardest part was the direction sensor
    - Finding the right sensor was hard - the Wii analog sensor was great but had too much throw.

Bacteria is a concern - hygiene.

How would you need to use it with a respirator.

Haptic feedback isn't quite there

- audible
- led for status

Framework for feedback

- there are reports through the group
- diversify involvement - from practictioners, caregivers, etc.