


Clapster

BrainStorming


Design Question
How might we teach rhythm and collaboration in an engaging and physical way?

Paper Prototype

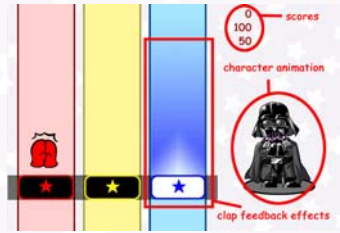
Paper & Films
Navigation design and the idea of using consistant glove control had been brought up at this point



Inspiration
Handbells + Iphone



A rhythm game that uses gesture-detecting gloves, requiring players to work together to clap along to the beat.



In addition, players can also make up their own clapping routine to the music for others to play.


Our Solution

Low fidelity Prototype

Mittens + YankeeDoodle
Mittens were the first design of physical gloves.
Yankee Doodle and Twinkle were the expected song levels



Challenges



Hardware

- Stability : Stop braking!
- Sensibility: Read my motion!
- Sensors : Need more!
- Gloves: : Small, big, soft and attachable
- Material and ideas for a more reliable and sensitive interface

Software

- Motion design :Self describing icons
- Code collaboration
- Sync with Hardware
- Replay function
- Motion sequence time sync: Magic number 18.5

Implementation

Hardware
Arduino Kit! The breadboard broke and now wires are soldered directly to the Kit

Left: Ground
Right: 5V

Highfive problems

Ground and 5V on each hand.

Sensitivity issues

Pressure sensors. And sponge foam velcros and lots of tapes for stability






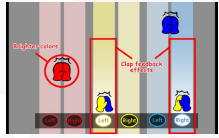



Software

Powerpoint animation with simple sequences

Separate left and right motion

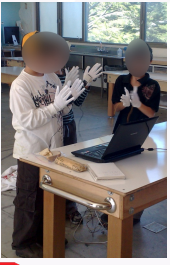
Blinking Eye effects!
This was rejected promptly

Brighter! Brighter!
And Characters like Spongebob!

User Test

Nueva School
Inspiring ideas and list of songs from Nueva school students.
Glove form, Characters, Sound effects, Beatles and more!
Thank you all!



Clapster2.0
2-Dimensional Game play with more motions!
Gloves, Shoes, Pants, Jackets and more sensors
Display device on mobile screen or interactive desk



Future Design