# Inclusivity and Accessibility of Interactive Web Games and Simulations

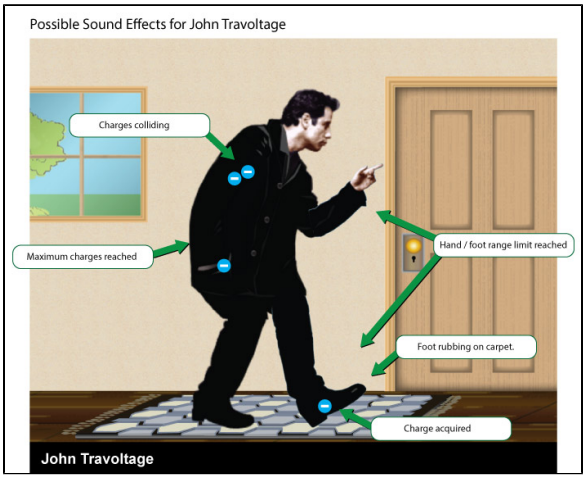
Interactive games can provide rich learning experiences for students - but for some, these games are not accessible. Designing an educational game which can be enjoyed by a broad spectrum of users can be a challenge.

The Floe Project has been collaborating with content partners to create more inclusive and accessible interactive content. This has resulted in a more accessible version of the PhET simulation John Travoltage, innovations in multi-modal access and descriptions, and sonification of STEM interactives.

The knowledge gained from this collaboration has helped contribute new content to the Floe Inclusive Learning Design Handbook.

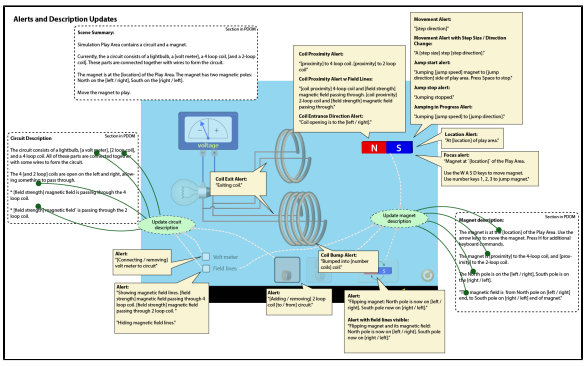
## Showcase

John Travoltage with multi-modal access




## Current Work

**Faraday's Law**




- PhET Faraday's Law Simulation - Text descriptions, alerts, and keyboard access
- PhET Faraday's Law Simulation - PDOM Sketch

## Designs

- PhET Forces and Motion Simulation Design
- PhET John Travoltage Simulation Design
- PhET Energy Skate Park Simulation
- Lumen Learning Analysis of Utility Simulation
- PhET Faraday's Law Simulation

## Work Documents

- PhET Notes
- PhET Tasking
- Accessibility Meeting Notes

## Inclusive Learning Design Handbook Contributions

- Web Games and Simulations on handbook.floeproject.org

## Partners

- PhET University of Boulder, Colorado
- Georgia Tech Sonification Lab
- Lumen Learning

## Examples

- Periodic Table (Sapling Learning)

## Media

- "PhET Simulations and Auditory Descriptions"
- "Making STEM More Accessible with Sonified PhET Simulations"
- Making STEM More Accessible with Sonified PhET Simulations
- PhET Simulations and Auditory Descriptions

## Resources

http://diagramcenter.org/