

Background and Approach

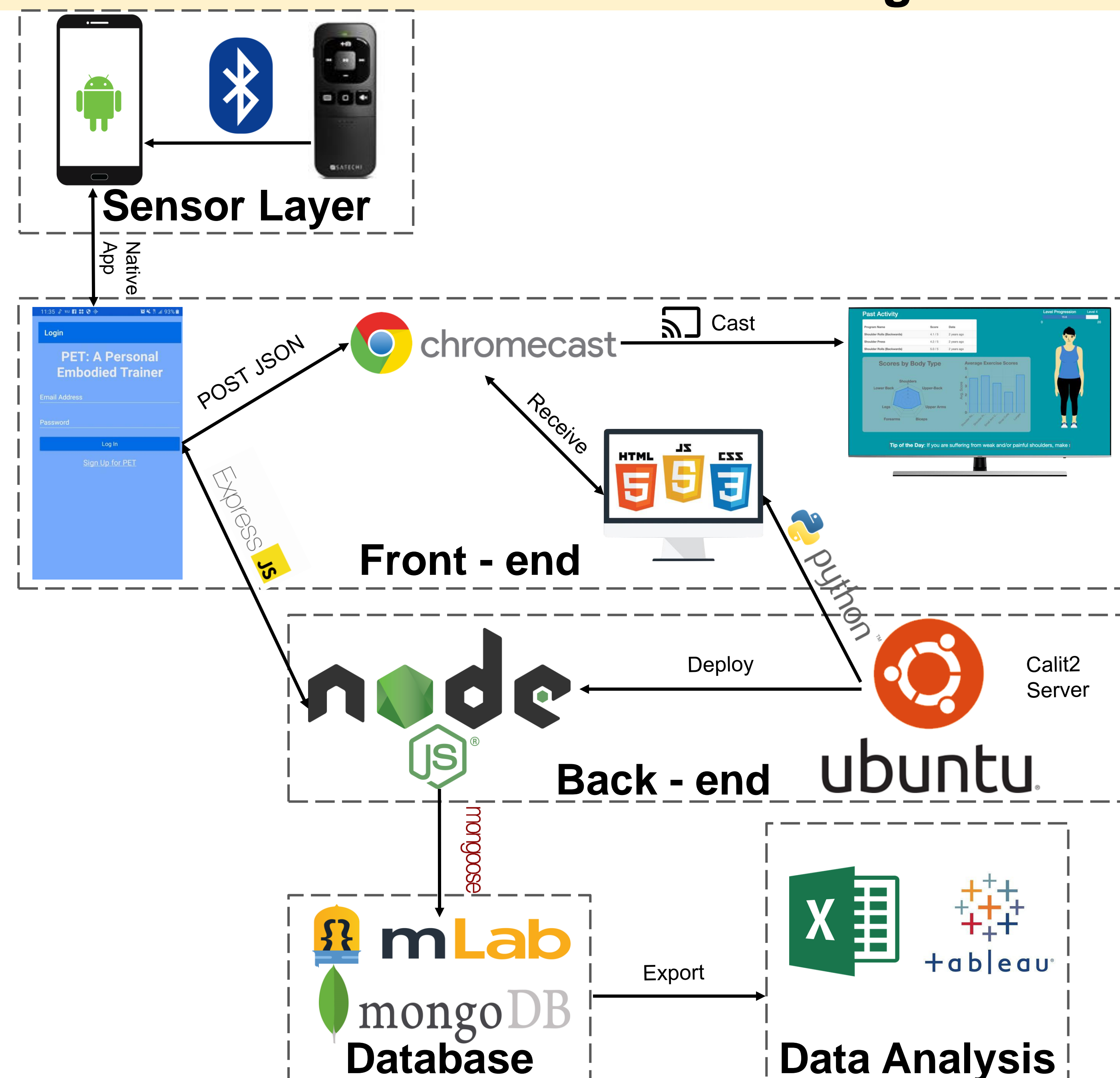
Background:

- Standby mode saves energy
- Users may get annoyed from waiting for a device to wake up from standby and disable the functionality
- The challenge is finding a balance in saving energy while maintaining user satisfaction
- Research is built off of web page loading
- Is a continuation of a previous project
 - Previous project did not receive enough data
 - Changed third delay screen for higher engagement
- Hypothesized that engaging delay screens can increase annoyance threshold

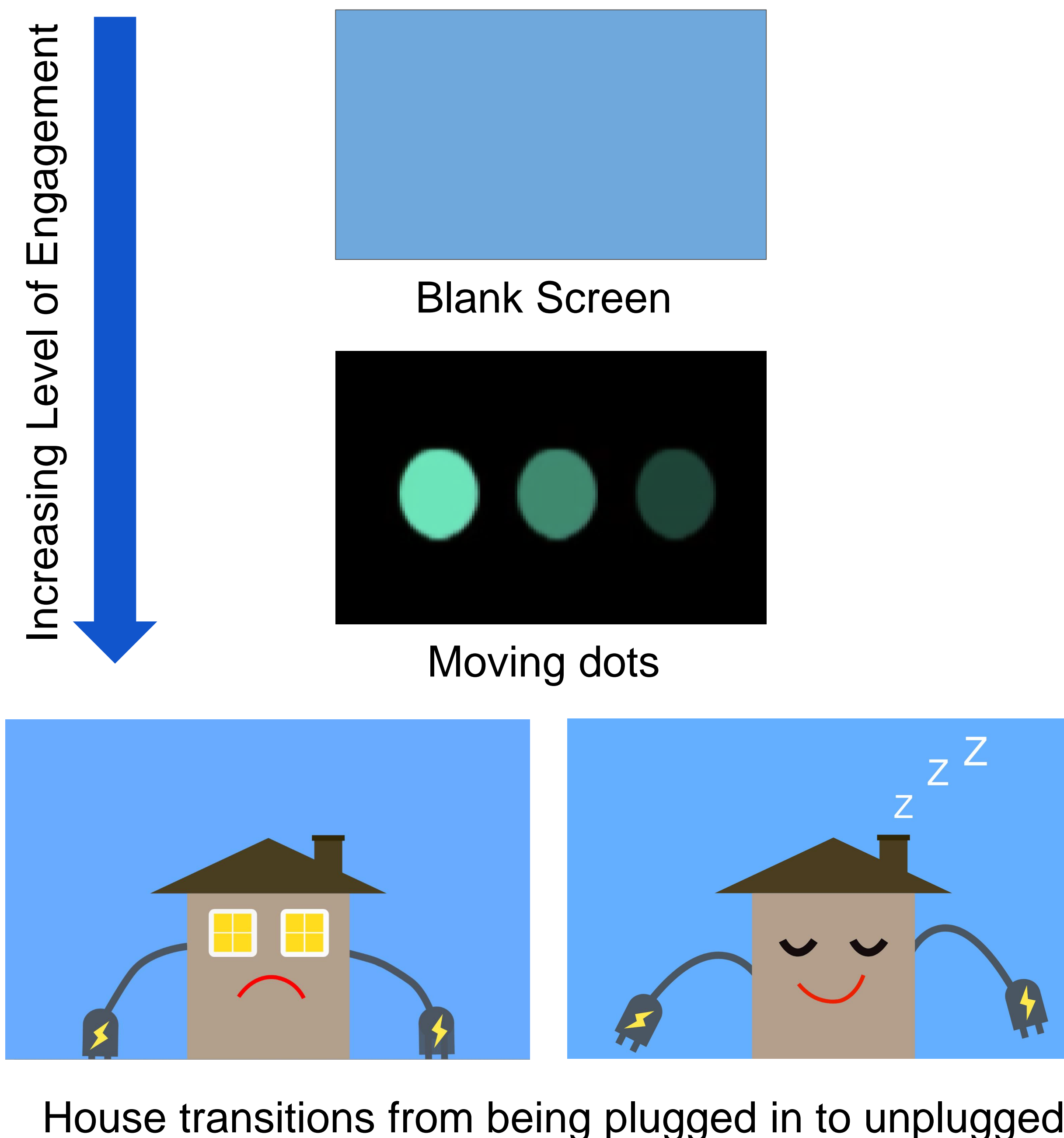
Approach:

- Subjects are told they are reviewing the PET application to receive their natural reaction to the delay
- Utilized three delay screens with different engaging levels
- Higher number of remote clicks means higher annoyance

Software and Hardware Design



Delay Screens



Delay Screens Explanation

- Subject is randomly given a delay screen to watch
- First Delay Screen: Blank Screen
 - Least Engaging
 - Most Remote Clicks
- Second Delay Screen: Dots
 - Mid-Level of Engaging
 - Mid Remote Clicks
 - Dots are moving
- Third Delay Screen: House Animation
 - Most Engaging
 - Least Remote Clicks
 - Tells a story to promote energy saving
 - Background color is blue
 - Shows a face

Experimental Procedure

1. Recruit subjects from Human Subject Lab
2. Part 1 of Experiment:
 - Receive verbal consent
 - Give subject instructions and equipment
 - Experimenter leaves the room
3. Part 2 of Experiment:
 - Complete first survey
 - Follow instructions to start PET app on TV
 - Watch delay screen and react
 - Complete PET exercises
4. Step 3 of Experiment:
 - Complete second survey
 - Reveal reason for deception and answer questions

Personal Embodied Trainer (PET)



Current Status and Next Steps

Current Status

- Finalized Delay Screens
- Ready for experiments

Next Steps

- Wait for approval to continue after COVID
- Continue recruiting subjects
 - Goal is to recruit students to produce significant data
- Conduct more experiments
- Analyze data to see whether engaging delay screens affect annoyance threshold