MOTIVATION

If you have myopia (nearsightedness), this text may be too small for you to read.
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What do you do?
The Idea

- Detect eye squint
- Enlarge areas of the display
- Browser view controlled by gaze
Other Solutions

Eye Tribe & Tobii Eyex Built-in Software
- Unintuitive
- Requires key input
Up Next...
INITIAL DESIGN

Tobii Eye Tracker

Chrome Extension

Webcam
Risks

**EyeJS**
- Installation difficulties
- NodeJS

**Compatibility Issues**
- Java & C

**Squint detection**
- Confused with eyes closed
- Hough transforms algorithm difficult to implement
Our New Approach

Detects leaning-in and leaning-out

Embedded browser in C++ application
Risks

- Risks associated with Tobii EyeX
- Misreads when user looks away from screen
- Requires steady posture of user
Software

Windows Form + Tobii C API
Eye tracking is the process of measuring either the point of gaze (where one is looking) or the motion of an eye relative to the head. An eye tracker is a device for measuring eye positions and eye movement. Eye trackers are used in research on the visual system, in psychology, in psycholinguistics, marketing, as an input device for human computer interaction, and in product design. There are a number of methods for measuring eye movement. The most popular variant uses video images from which the eye position is extracted. Other methods use search coils or are based on the electrooculogram.
Team Structure

Design                Development             Management

Xiaoying               Ziyang               Arturo               Alex               Benjamin               Daniel
Closing Remarks

● Stick with one platform/device

● More concrete roles

● Scheduling
  ○ integration of parts
Looking Ahead

Chrome extension

Squint Detection
Questions?