

PROJECT WRITEUP: eyedraw

Goal of Project:

To create an online drawing canvas where user can create colorful, abstract images with their eye movements

Project Description:

EyeDraw utilizes the WebGazer.js eye-tracking API to create a drawing application, allowing users to draw abstract pictures using their eye movements. Users will calibrate the eye tracker by clicking on the canvas. All of the drawing will be done through eye movements and lines are drawn at regularly-timed intervals. Users can change the color of their line by clicking any of the buttons at the top to start new colored lines. To start and stop the drawing, users can click the button at the top of the page or hit any key on their keyboard.

Target Users:

People who want to draw and create new images in a creative way. Not the most accurate way to draw an image, but it's a fun, lighthearted, and challenging drawing task to try.

Design Choices:

- We created a toolbar of color choices arranged in a "rainbow" order that is the length of the drawing canvas.
- We opted to keep the styling of the page minimalistic to not distract from the creative drawing process
- We left the canvas as a blank slate, as opposed to a grid or a guiding image (maze, connect-the-dots), to stay true to our goal of abstract creation
- We added a nicely doodled eyeball as the favicon for our site
- Our button changing text from "start" to "stop" and the "current color" bar changing color let the user know what drawing mode they're in, and there's no opportunity for them to input bad data

User Instructions:

(these instructions presume the application is running on an HTTP server)

1. Click the “start” button or hit any key on the keyboard to start drawing and initialize eye-tracking via your computer’s camera (be sure to allow use of the camera if prompted!).
2. Click on the canvas to calibrate eye-tracking
3. Move your gaze around the screen, and marvel as lines are drawn!
4. At any time, click a different color from the Color Bar to start a new line of that color
5. At any time, click the “stop” button or hit any key on the keyboard to pause drawing, then hit “start” or any key to resume drawing when you’re ready
6. Step back in awe, and enjoy your abstract art!

Design Documentation

Please see `README` and `HOW_TO_RUN`.