Moire Generator

Roles by Allan Pichardo (AP) and Ariana Hipsagh (AH)

Summary

The Moire Generator is an interactive moire pattern generator that offers three patterns that the user can manipulate. The environment is changed dynamically in real time when the user drags, and presses the UP and Down arrow keys to interact with the moire pattern. Double-clicking permits the user to go to the next pattern. The work is an Interactive Dynamic Visualization Piece with limited patterns offered which makes it easy for the user to double click into their pattern of choice.

Concept

Moire patterns are interference patterns that emerge when opaque ruled patterns are overlaid upon each other and displaced. By manipulating the amount of displacement and the displacement type (i.e. rotation or translation), an optical illusion is produced. The idea for using moire patterns in the project emerged from our original concept of featuring multi-layered parallax effects. Due to time constraints, we determined we might still be able to explore a parallax effect by using very primitive forms.

Technology Used

The Moire Generator is implemented in JavaScript, HTML, and CSS without any external libraries. The patterns are drawn on an HTML <canvas> element and manipulated by listening to user events on the document. Each pattern object implements the same interface, only overriding the draw() method. This design

allows us to easily add patterns without worrying about the interaction implementation.

Group Roles

Due to the fact that the only time we could meet was during class hours because of our class schedules, we knew that we had to rely on each other to step up without clear role definitions. This is very much like the midfielder passing to where the striker should be in order to score. We met for our kickoff to finalize the concept for the prototype and to put in place the build of the programming structure to which we would each independently contribute our patterns. During this initial meeting, we built a working prototype along with the concentric circle pattern. Afterwards, we each contributed another pattern class independently with Allan implementing the spline curve pattern and Ariana implementing the triangles pattern.

Visual Storyboard

Translation Effects
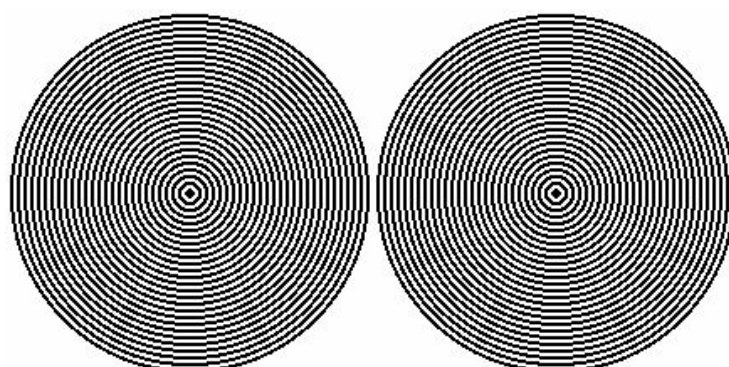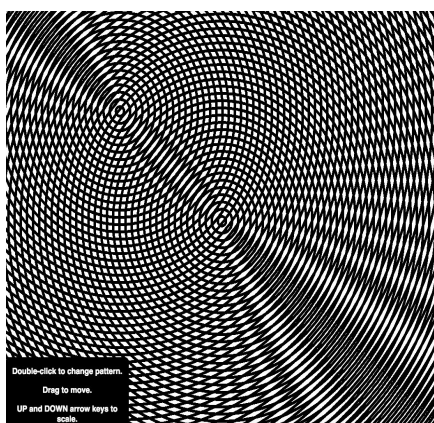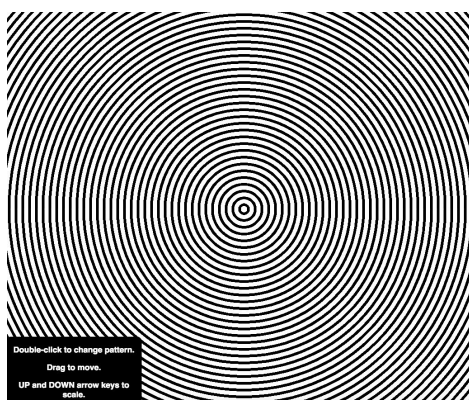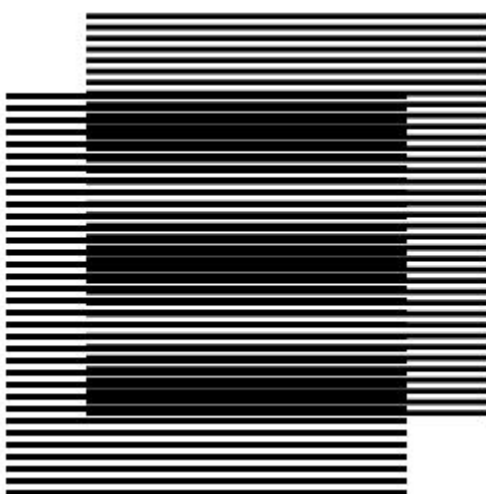
Scaling Effects
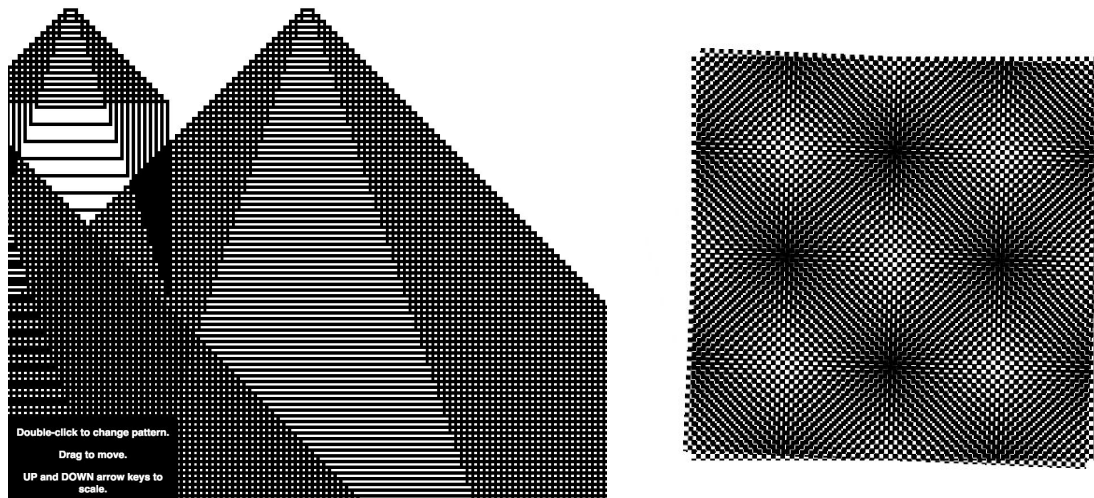
https://www.behance.net/gallery/24601387/ILLUSION-OF-MOVEMENT-(moir-experiments)

https://youtu.be/cvWF_Q5-Kt8?t=113

https://youtu.be/39pBXE3F88E?t=279

https://youtu.be/QAja2jp1VjE?t=291