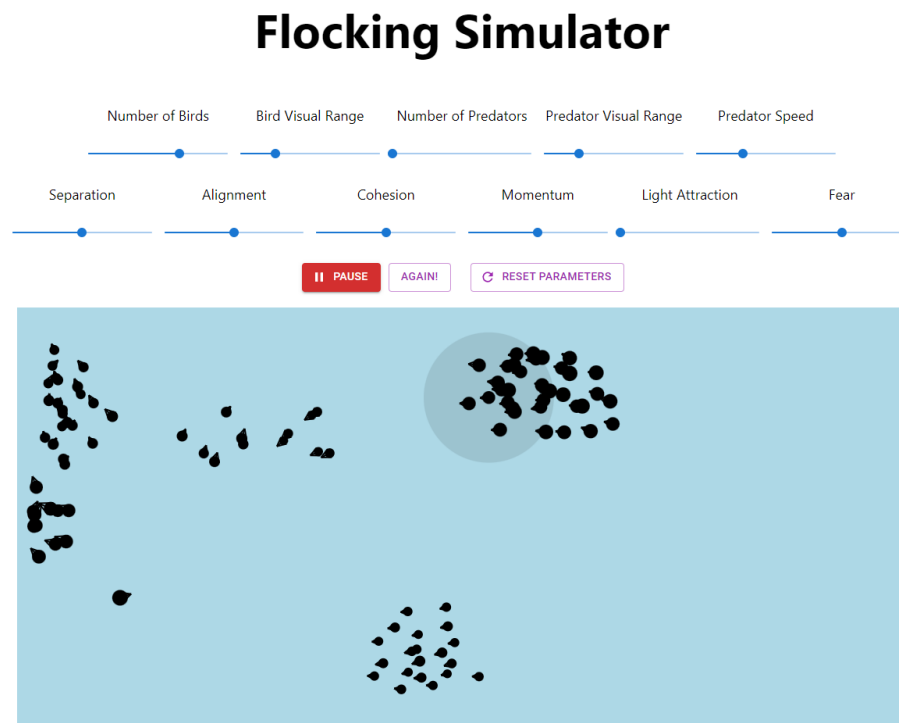


Boid Simulation on WebGL

Our Final Project is a boid simulation, which simulates “birds” and their flocking behavior. This behavior consists of three components, the cohesion, separation, and alignment of each bird. Cohesion is the tendency to move towards the average position (center of mass) of local flockmates, separation is the tendency to avoid crowding local flockmates and alignment is the tendency to move towards the average heading of local flockmates.

We successfully implemented all of these behaviors as well adding sliders so that the user may change each of the variables to see the different flocking mechanisms. We also implemented the momentum which accounts for how strongly the boid will want to change direction as well as adding predators that will hunt down the boids. There are also options to change the number of boids and the number of predators on the screen.



References :

<https://en.wikipedia.org/wiki/Boids>

<https://eater.net/boids>

<https://medium.com/fragmentblog/simulating-flocking-with-the-boids-algorithm-92aef51b9e00>