

Digital Lace

Review the vocabulary words for this section: *input/output, algorithm, lace, horror vacui, tessellation, SVG file, and Processing*.

<https://docs.google.com/document/d/159qWITNXdo6wXtaCTpJtQV7dVNJpkSxH7z7KmXu6ISA/edit?usp=sharing>

See Craig Reynolds' website for a more detailed description of the Boids algorithm.

<http://www.red3d.com/cwr/boids/>

I. Software Instructions

1. Open DigitalLace.pde in Processing.
2. Use the sliders to control the amount of separation, alignment and cohesion of boids in simulation.
3. Press **SHOW_BOIDS** to show "debug view" of flocking functionality. Press again to hide. Adjust the sliders to get your preferred flocking behavior.
4. Press spacebar to pause the simulation.
5. Use the **BOIDS_COUNT** slider to increase/decrease the flock size.
6. Press **NEW_FLOCK** to start a new flock.
7. Press **SAVE_FILE** to save design as a SVG file ("LaceBoids_X.svg" saved in the data folder, the file name will be based on the current date & time)

II. Laser Cutting Instructions

1. Follow instructions in **SVG Output Clean-up for Laser-ready Files**.
2. Make sure to carefully review the **Papercutting Tips for the Laser** tutorial.
Digital Lace is the trickiest design to troubleshoot on the laser cutter.