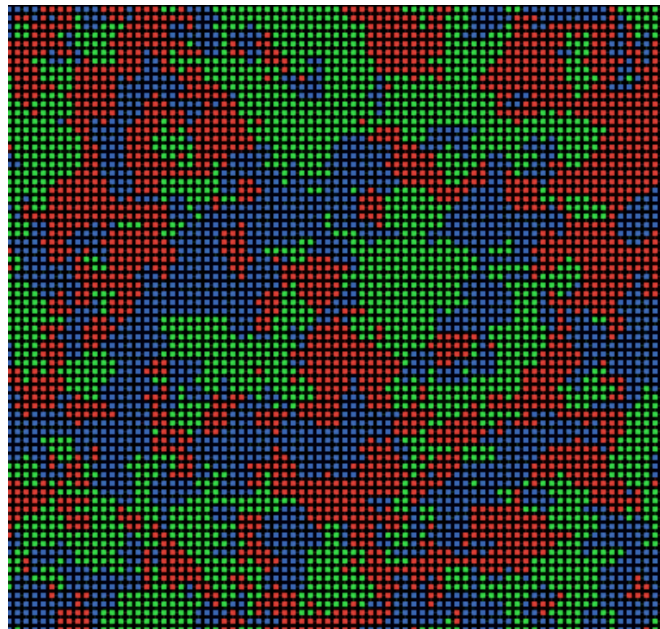


Lab 5: NetLogo Experiments with Rock-Paper-Scissors



There is one NetLogo video lecture that accompanies this lab assignment: NetLogo and Rock-Paper-Scissors - part 1

Assignment For Week 5:

The "NetLogo and Rock-Paper-Scissors - part 1" video fully develops the code you will be entering, running, and using in this lab. However, there are several moments at which it's suggested that you pause the video and try to write some portion of the code, or create some user interface element, before it's shown in the video. We encourage you to take advantage of these opportunities to build your NetLogo programming skills.

After you get the Rock-Paper-Scissors 1 (RPS1) program running, you are to design and run experiments with the aim of helping you to answer the following questions:

- 1) How would you characterize the long-term behavior of the model?
- 2) Does the size of the NetLogo world have any effect on the long-term behavior?
- 3) Does the topology (e.g. torus vs. box) of the NetLogo world have any effect on the long-term behavior?
- 4) If the answer to either #2 or #3 is "yes", what is your conjecture as to why this effect happens?

Reminder: The size and topology of the NetLogo world can be changed in the **Model Settings** dialog, which is accessed through the **Settings** button at the right end of the toolbar in the **Interface** window, or by right-clicking on the NetLogo world and selecting **Edit** from the pop-up menu.

Grading Rubric for Rock-Paper-Scissors part 1 [10 points total]:

[1 points]: Attached the file in Blackboard Learn with the file name:

RPS1.*firstname.lastname*.nlogo

Note: **DO NOT copy and paste** your source code into Blackboard Learn. You must **attach** the NetLogo source file.

********* After attaching, you **MUST CLICK SUBMIT *******

[1 points]: The "info" section of each your programs includes your name, the date and a description of what the program does.

[8 points]: Design and run experiments that attempt to answer the four questions described above. Describe your design, list the experiments you ran, report your results and state your conclusion. All this reporting must be included within the "info" tab of the RPS1.*firstname.lastname*.nlogo file you submit into Blackboard Learn. Note:

IMPORTANT:

The points you earn for this section are **NOT** based at all on your conclusion. Rather, they are based on the on the following criteria:

- a) Is your experimental design well-conceived? This includes number of experiments run and ranges of values tested.
- b) Is your reporting clear, well organized and easy to read?