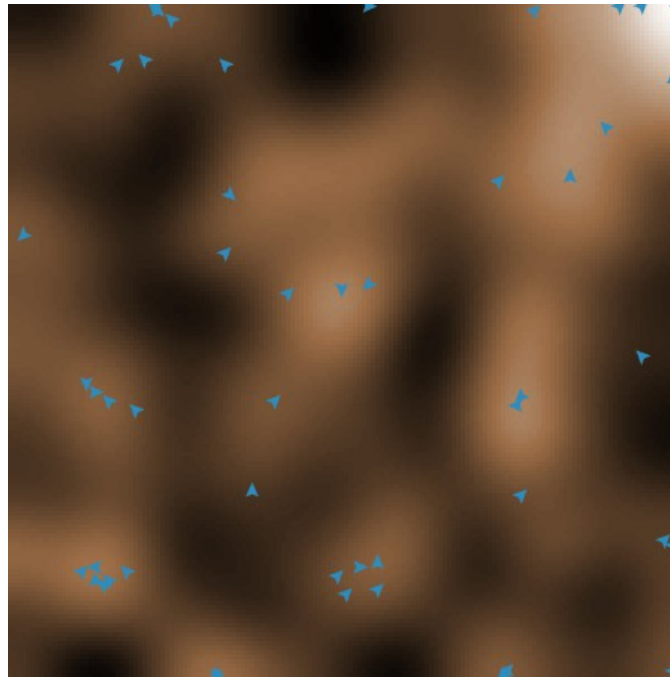


Lab 7: Hill Climbers – Part 2



There is one NetLogo video lecture that accompanies this lab assignment: "Hill Climbers - Part 2".

Assignment For Week 8 (part 2):

The "Hill Climbers - Part 2" video shows and describes most of the code you'll need to write or modify to produce the Hill Climbers 2 model. However, you are expected to write the code for the final element of the model - a stopping condition for stopping the simulation automatically. The number of points awarded for completion of the model reflects this additional effort.

After you get the Hill Climbers 2 (Climbers2) program running, you are to design and run experiments with the aim of helping you to answer question 1 and 2. Then, answer question 3 as a thought experiment.

- 1) What is the effect (if any) of changes in the climber population size on the climber success rate (i.e. the percentage of who reach safety)?
- 2) What combinations of maximum wiggle angle and number of wiggle steps are most effective in helping the climbers reach safety?
- 3) In addition to the highest known patch, and the elevation of that patch, what are some additional terrain features that could be useful for climbers to remember, and pass along to other climbers?

Grading Rubric for Climbers part 1 [10 points total]:

[3 points]: Attached the file in Blackboard Learn with the file name:
`Climbers2.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 your program includes your name, the date and a description of what the program does.

[6 points]: Design and run experiments that attempt to answer the first two questions described above. (Treat the third question as a thought experiment.) 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 `Climbers2.firstname.lastname.nlogo` file you submit into Blackboard Learn. Note: 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) Do the answers to "thought experiment" questions demonstrate deliberate reflection and solid reasoning?
- c) Is your reporting clear, well organized, and easy to read?