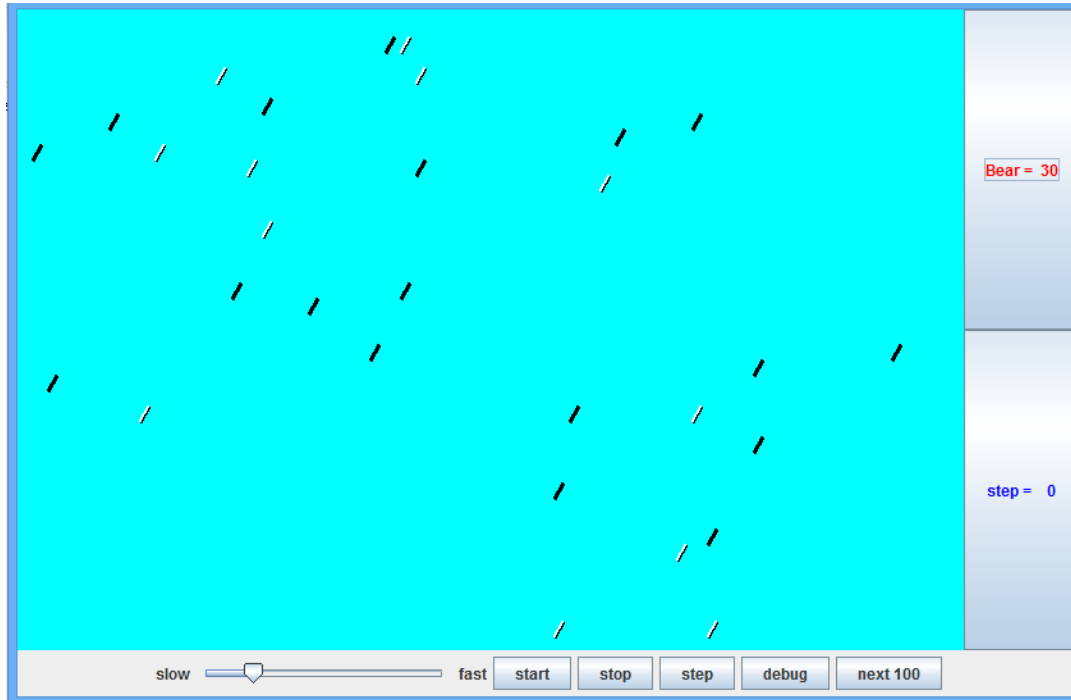
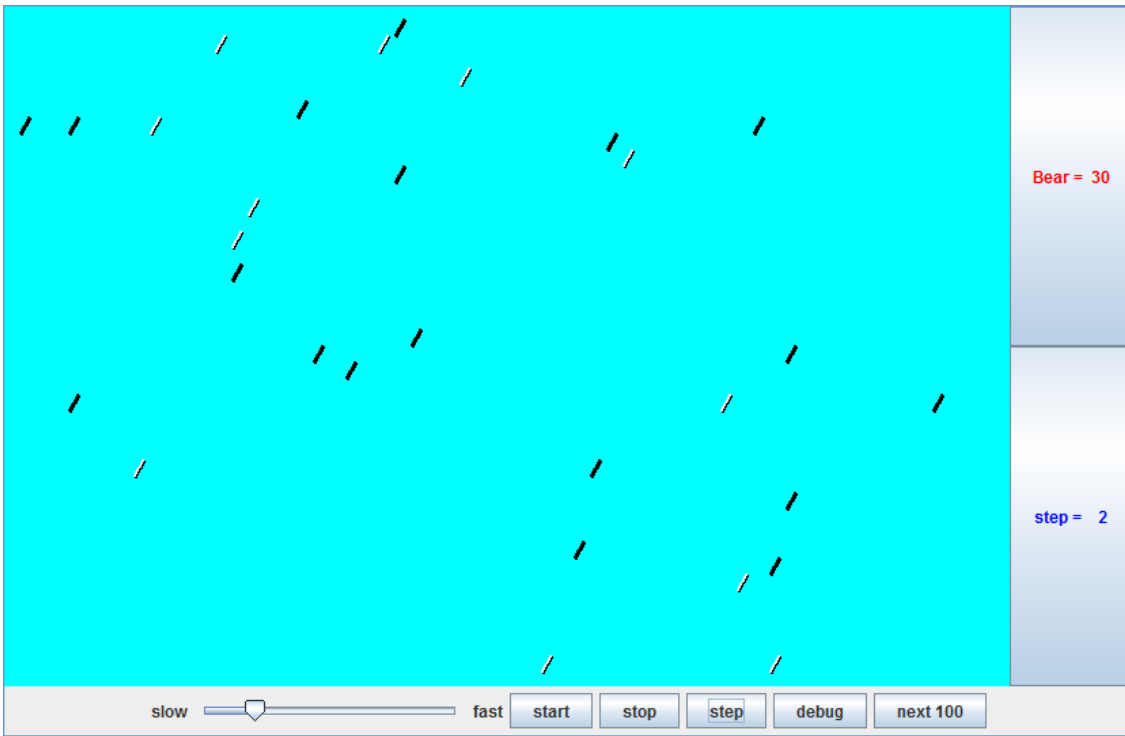
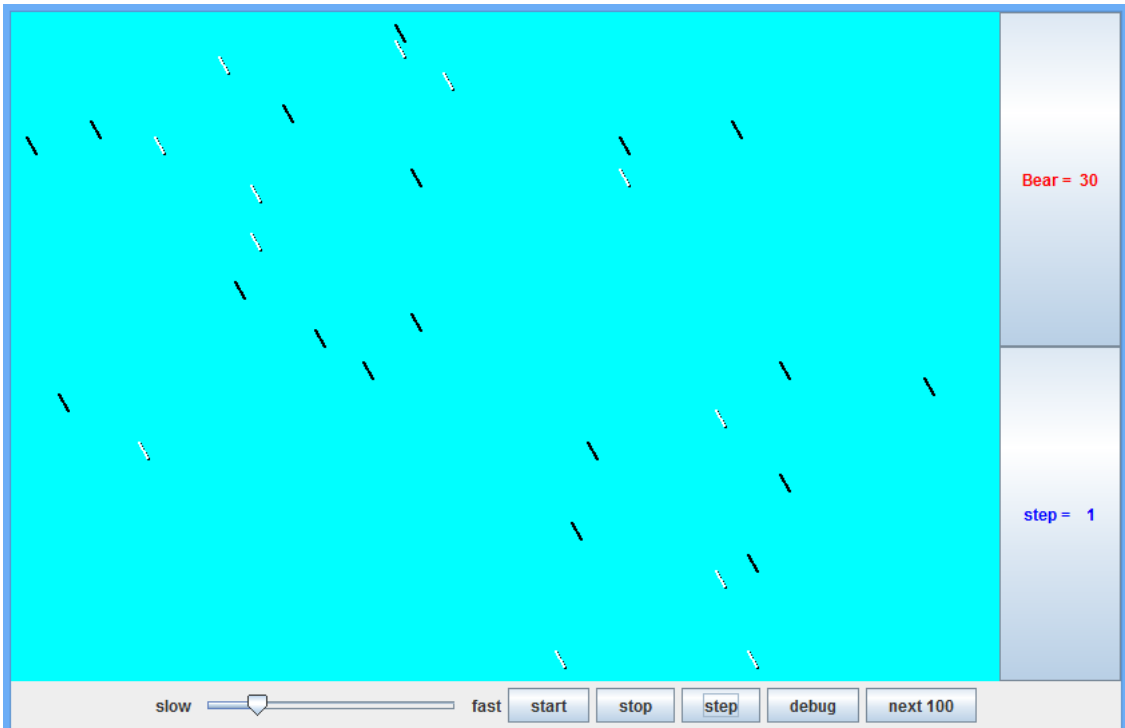


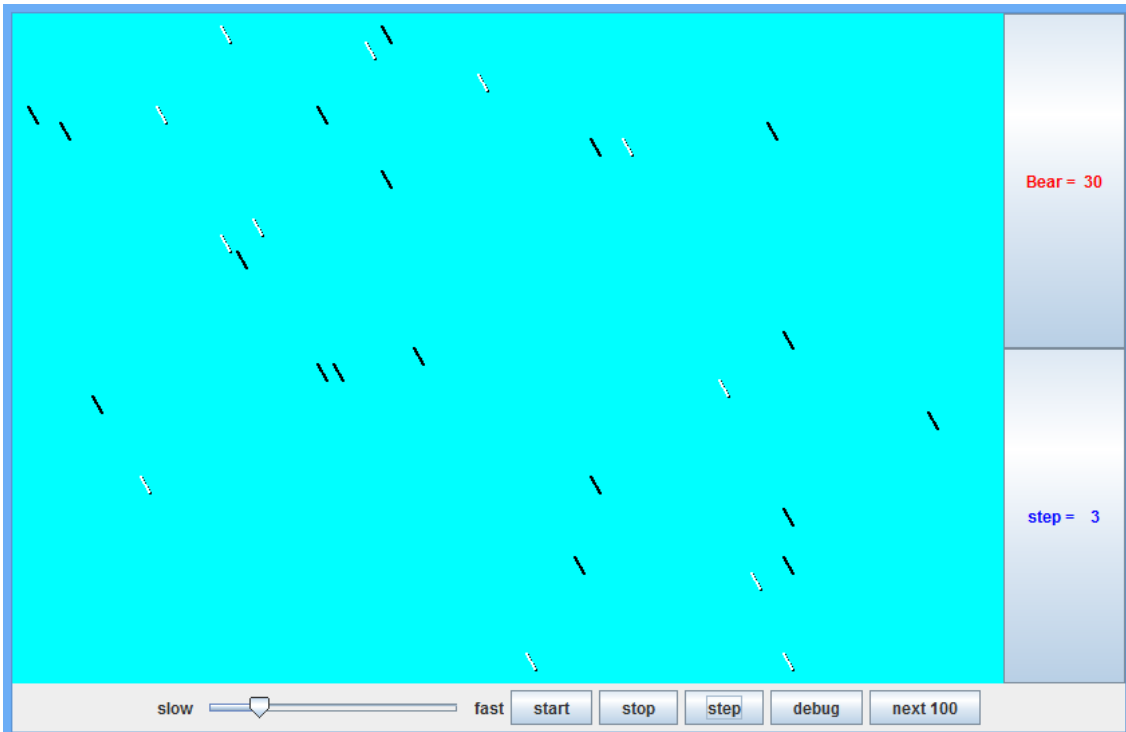
Bear Class

1. Bear class takes a random Boolean in its constructor for the color, so about half bears to be white and about another half bears to be black. All bears should show “/” when program starts.

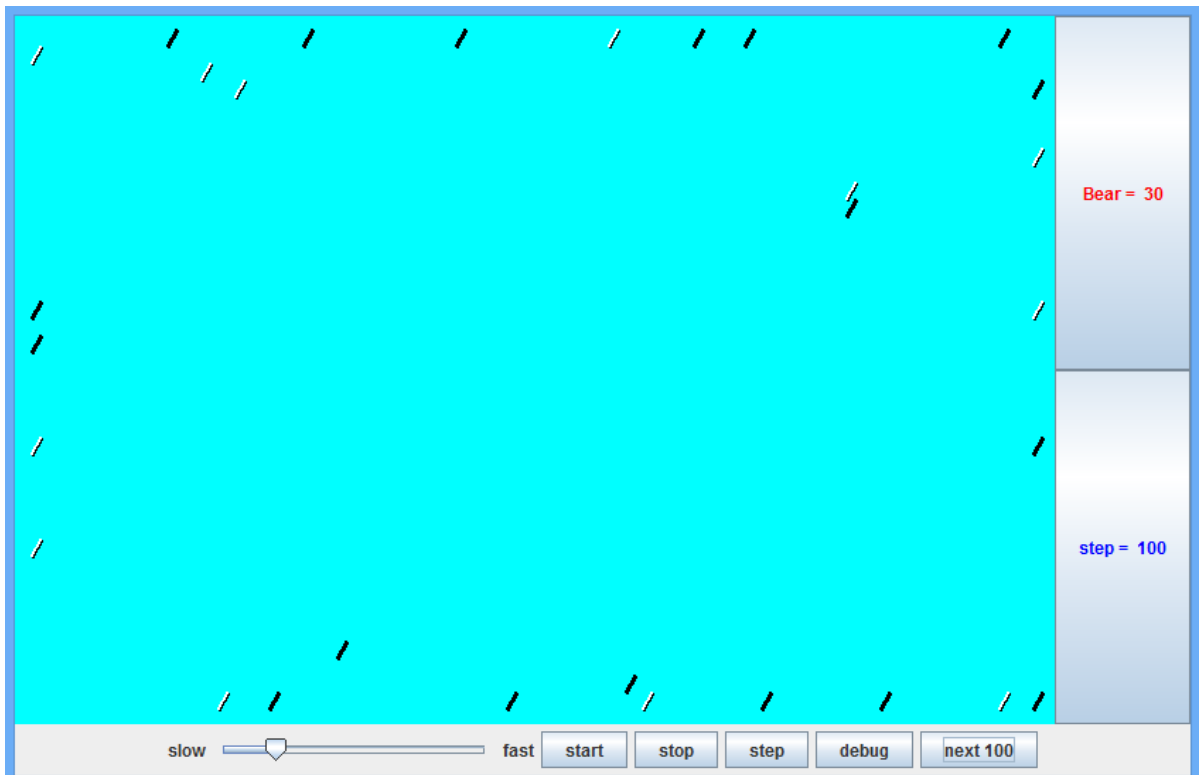


2. Bear shows “/” and “\” alternatively based on each different move, so on step 1, all bears show “\”, and on step 2, all bears show “/” and so on so forth.

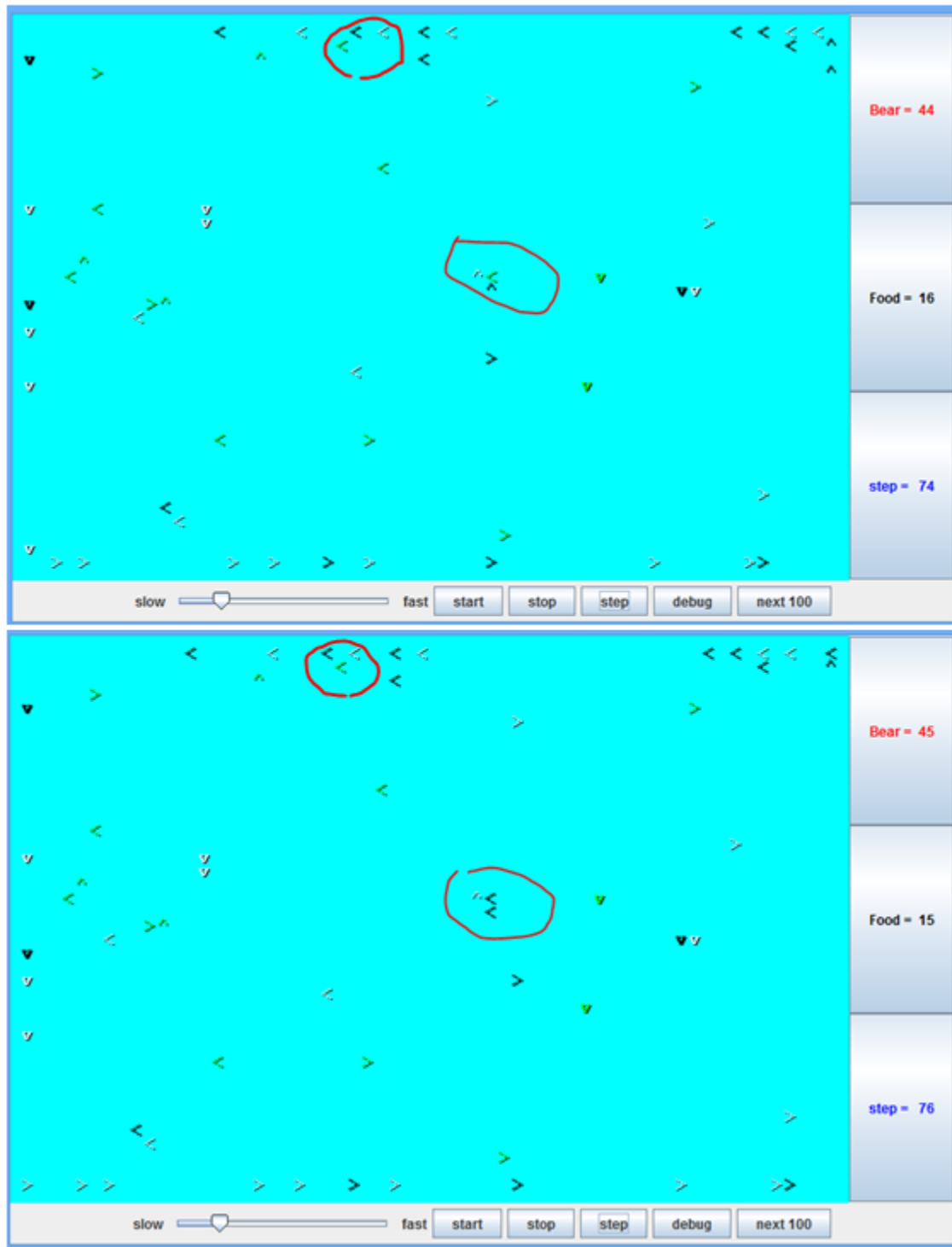




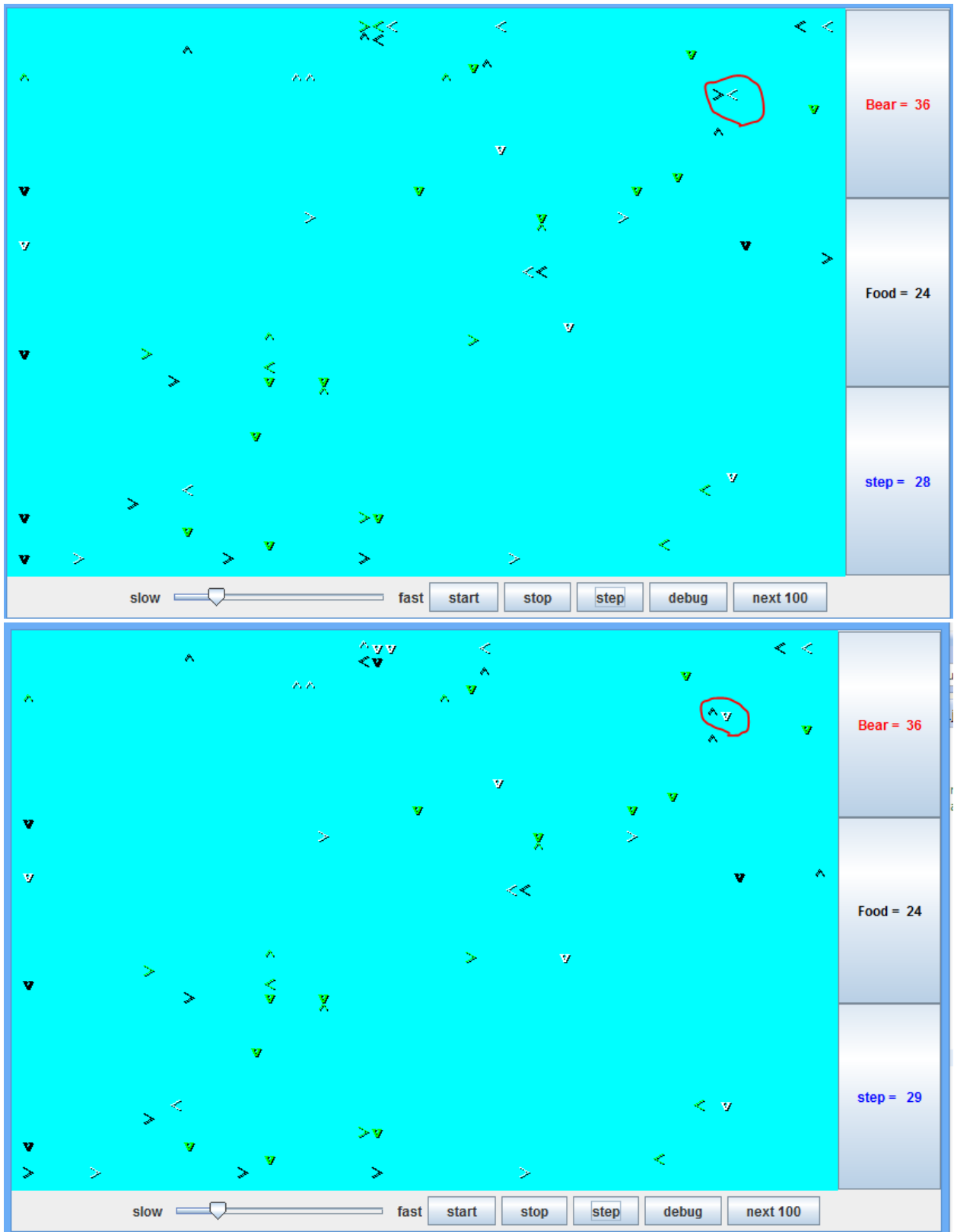
3. On the step 100, all bears show “/”. And bears turn left when they run into wall or themselves, they should move along the wall in counterclockwise direction.



4. Bears infect others in front, and they hop if possible. So I put 30 food in the world to test this method. Look at the black bear who has a food in front and the polar bear with nothing in front. The food in front of the black bear turn into a new bear and the polar bear move one step forward in its direction. Also, if the food is not in front of the bear, the bear will just pass it without infecting.

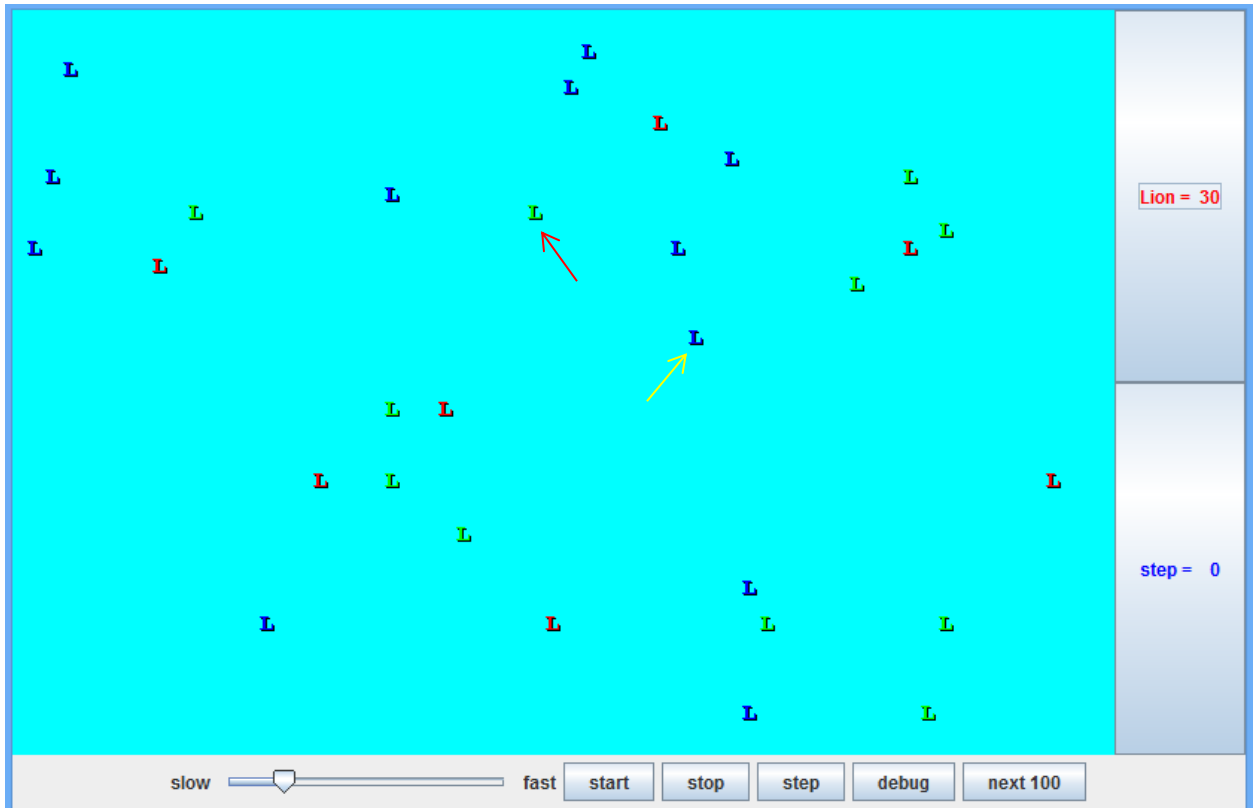


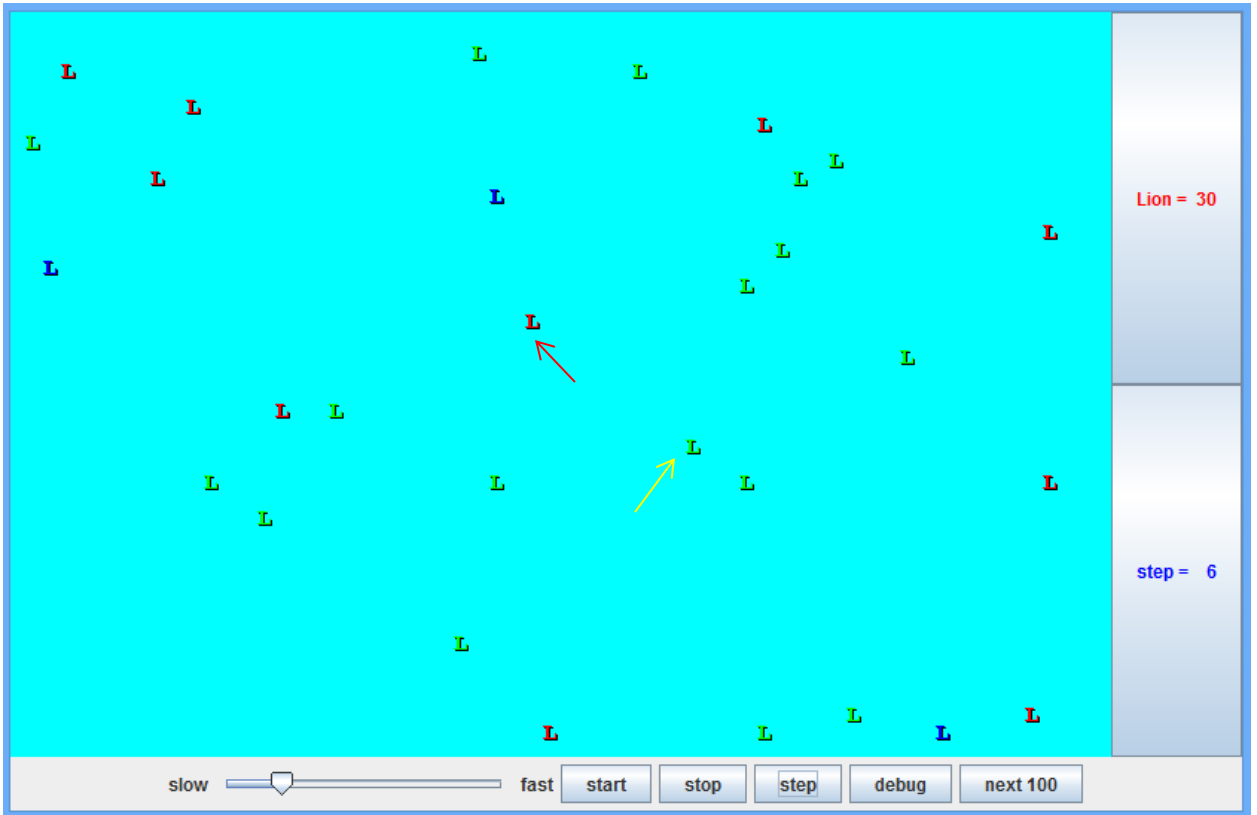
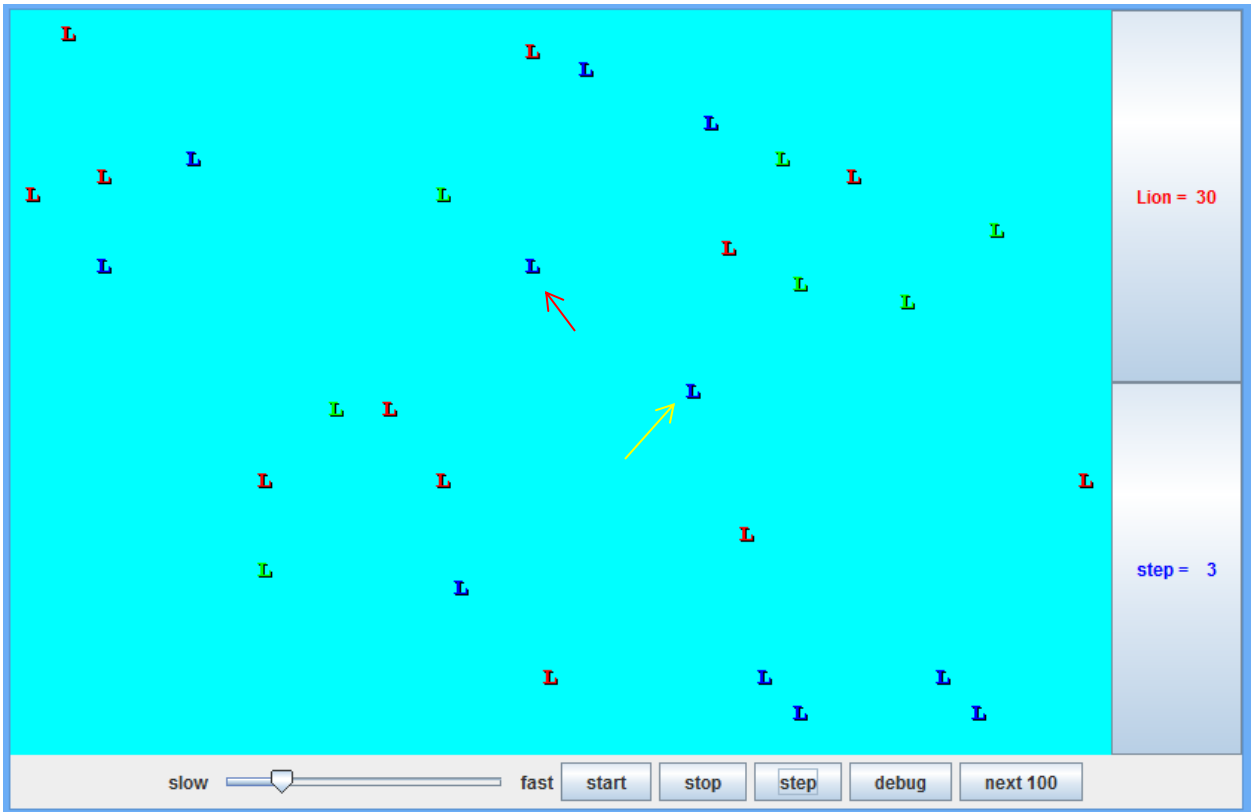
5. If two bears run into each other, they both turn left as shown below.



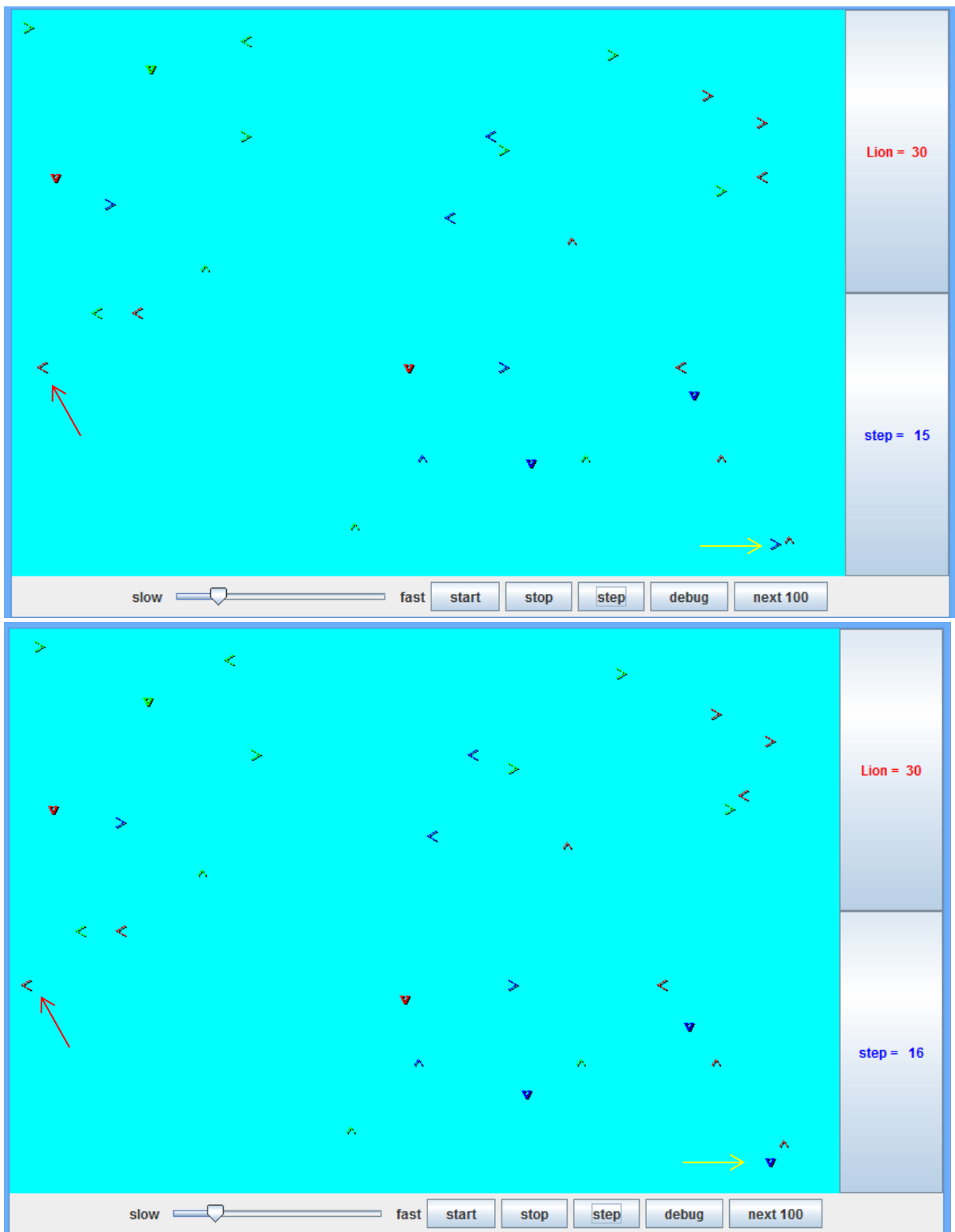
Lion Class

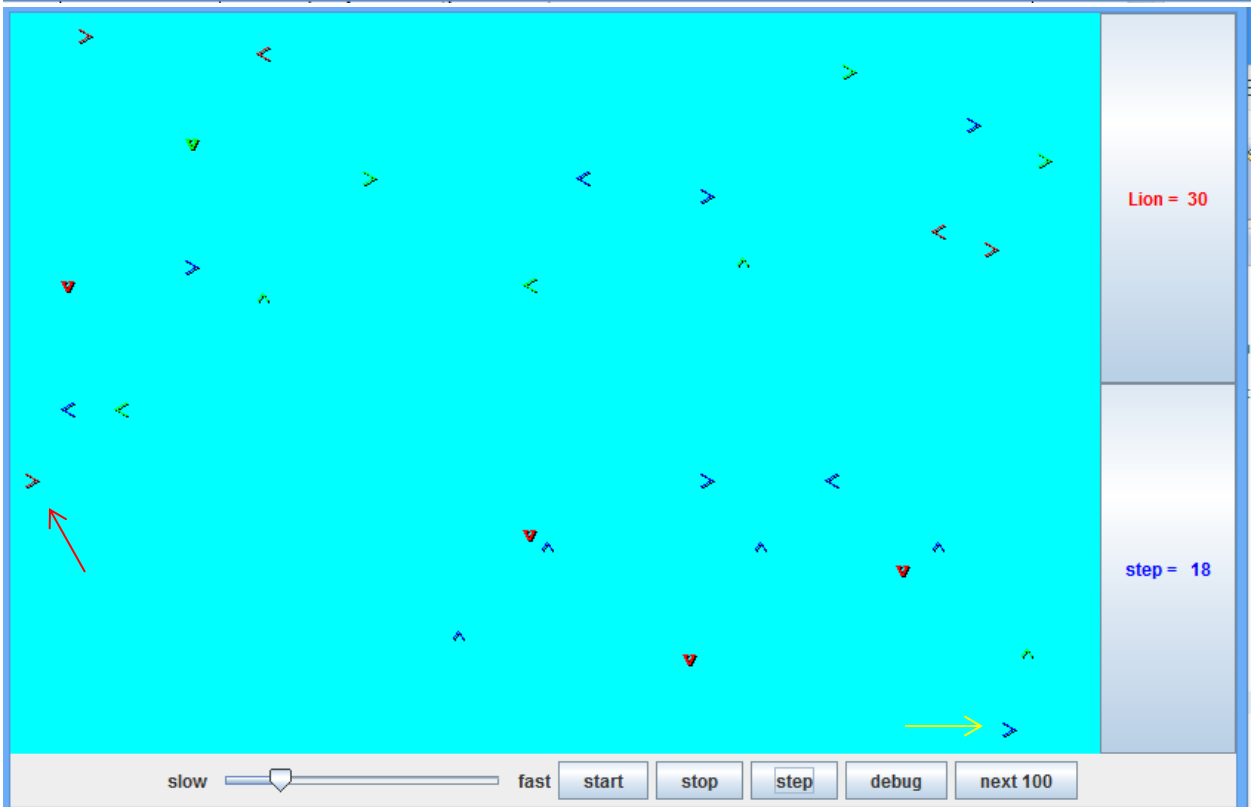
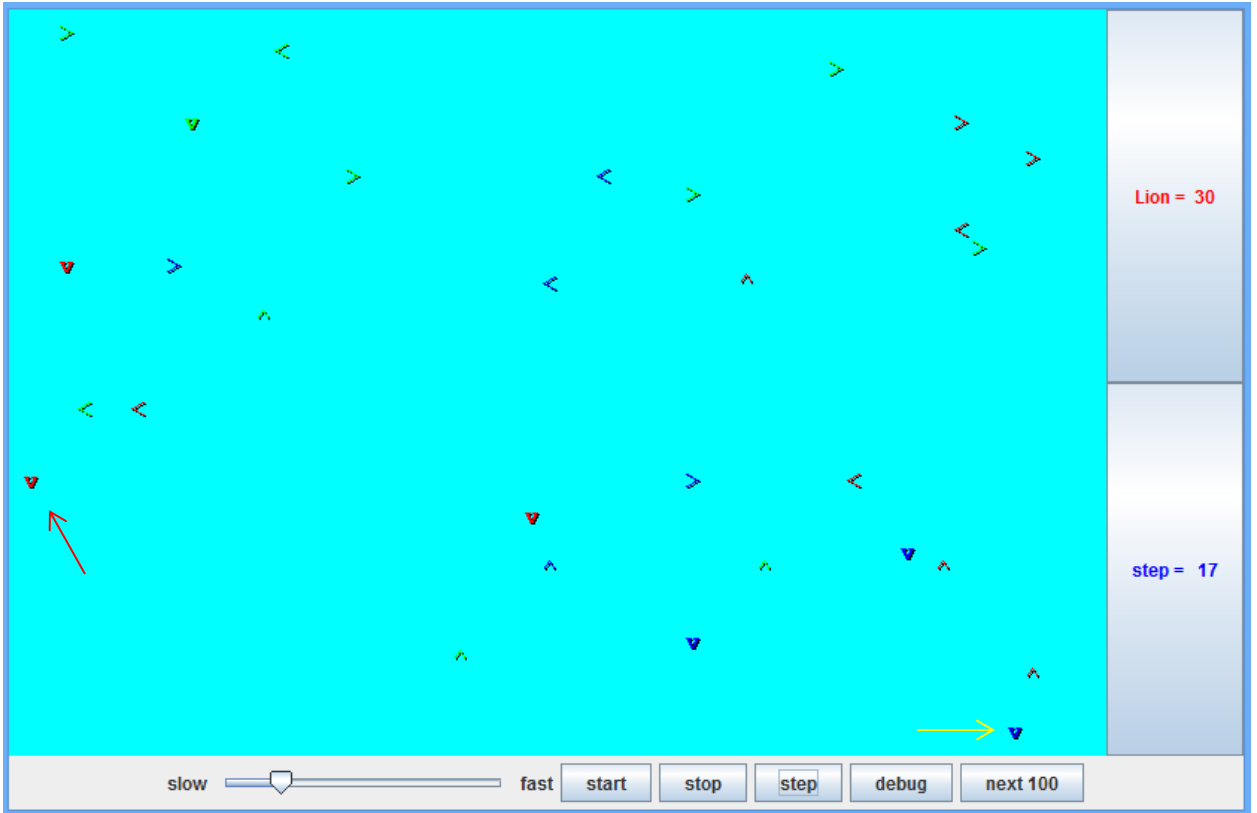
1. Lions randomly choose a color between red, green and blue every 3 steps. So the color will change every 3 steps (30 percent). On the other hand, because the color is randomly chosen, a lion might have the same color for 6 steps, 9 steps or even more steps. Lions should keep its initial colors for step 0, 1, 2, and change colors for step 3 and keep it for step 4 and 5. Then change color again on step 6.



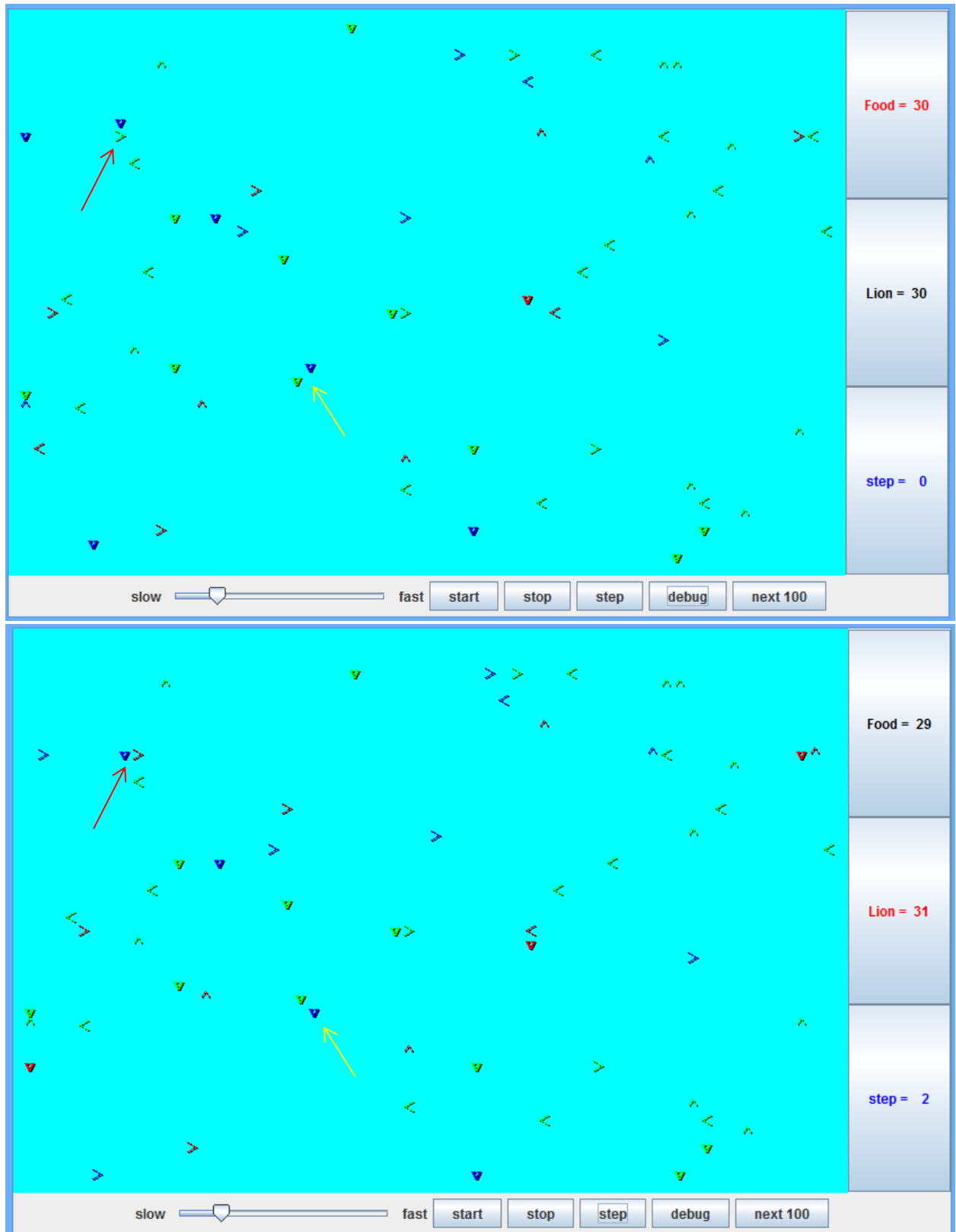


2. When run into wall, lions bounce off the walls and head back because they turn left when wall is in front and turn left again when wall is on the right. They turn right when they see themselves.





3. When introducing food in the world, lions only infect the food in front of them and ignore the food anywhere else around them.



Giant Class

1. Giants change its string symbol every 6 moves. It stays its initial “fee” for 6 moves, and change it to “fie” on step 6. Then stay “fie” for 6 moves and change to “foe” on step 12, so on so forth. Finally change it back to “fee” on step 24 and repeat the pattern.

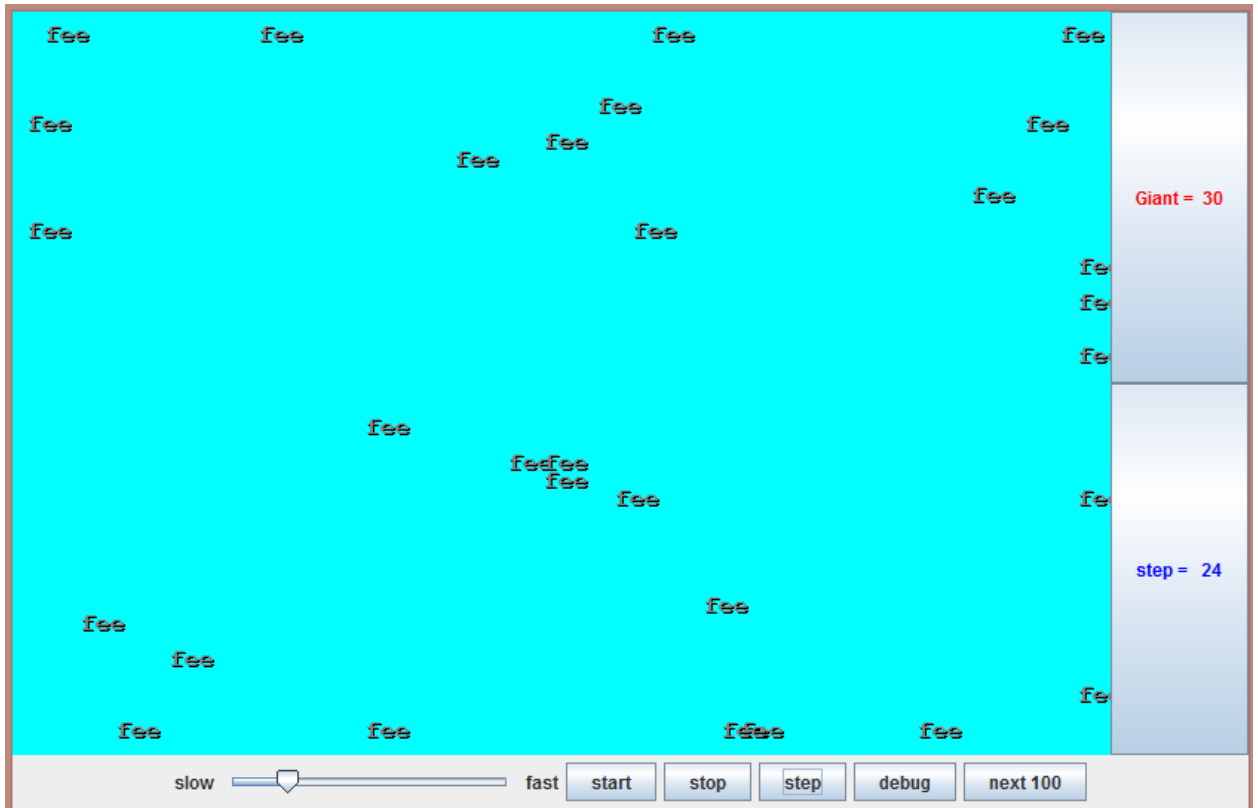
The image displays two screenshots of a simulation interface, likely for a game or experiment involving the 'Giant Class'. The interface consists of a large cyan rectangular area representing the simulation space, a right-hand sidebar with status information, and a bottom control panel.

Top Screenshot (Step 0):

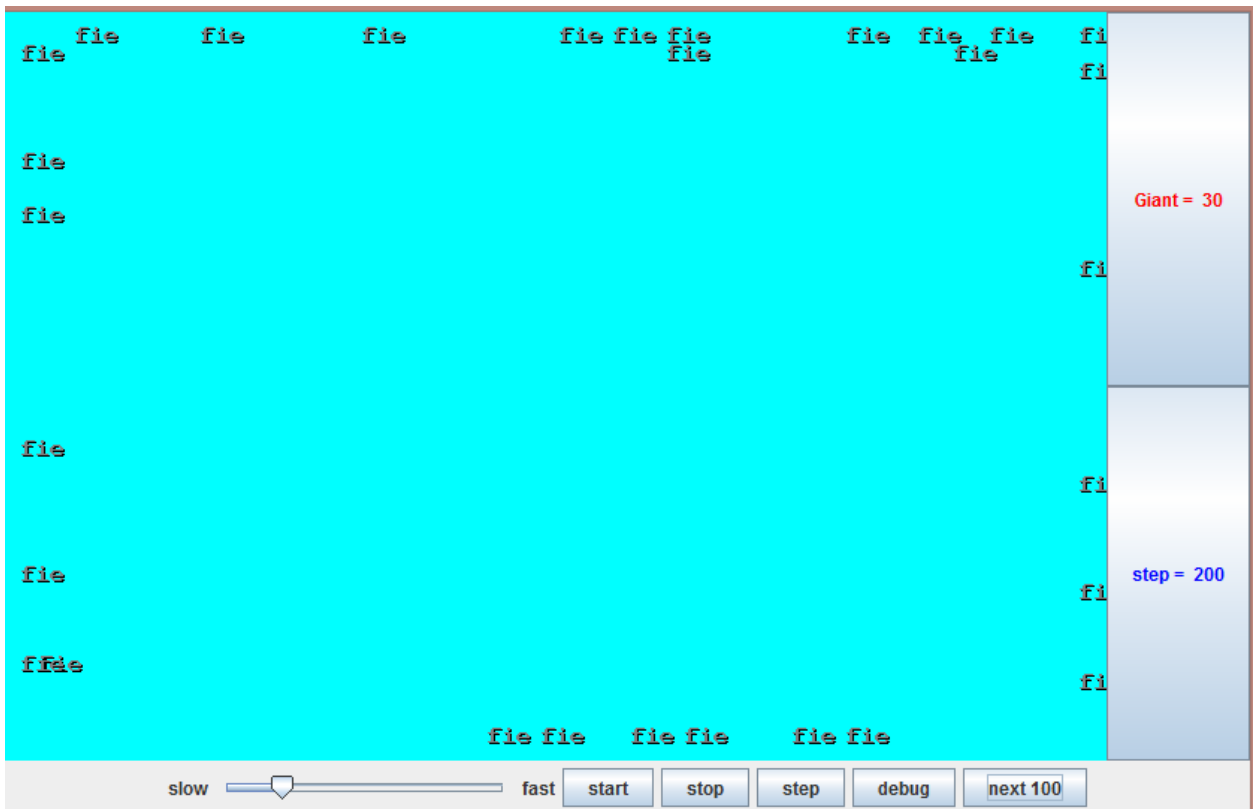
- The simulation space contains numerous instances of the string "fee" scattered across the area.
- The sidebar on the right shows "Giant = 30" in red text and "step = 0" in blue text.
- The control panel at the bottom includes a speed slider set between "slow" and "fast", and buttons for "start", "stop", "step", "debug", and "next 100".

Bottom Screenshot (Step 6):

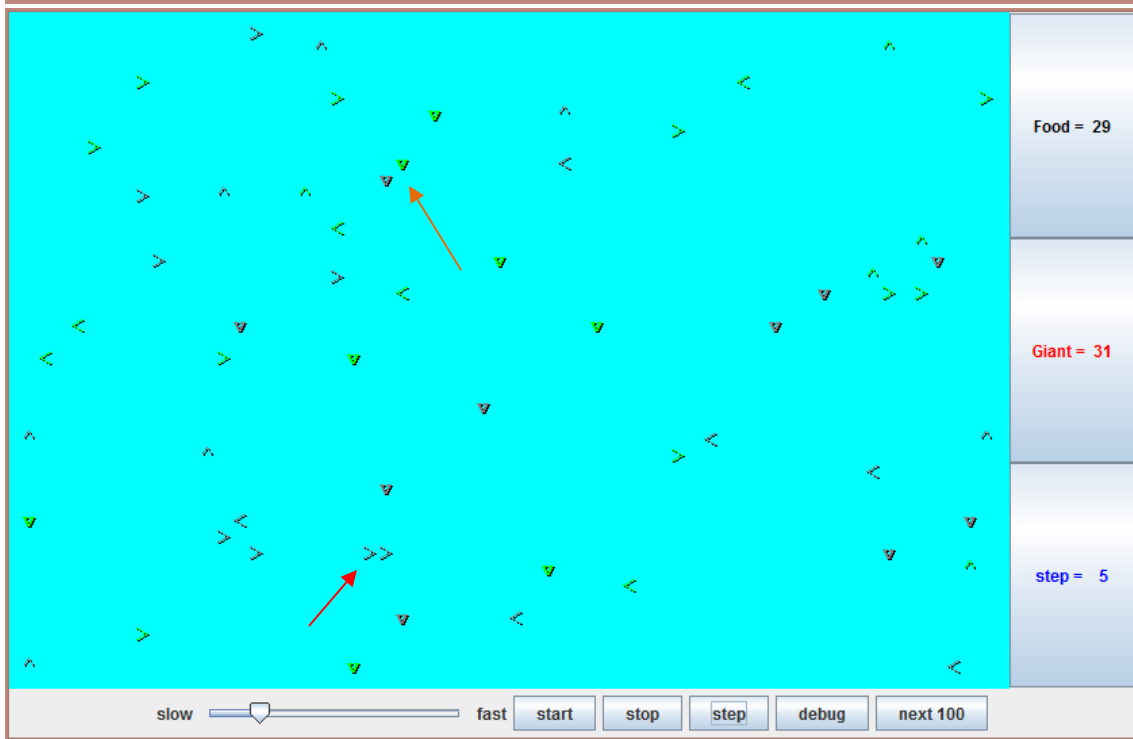
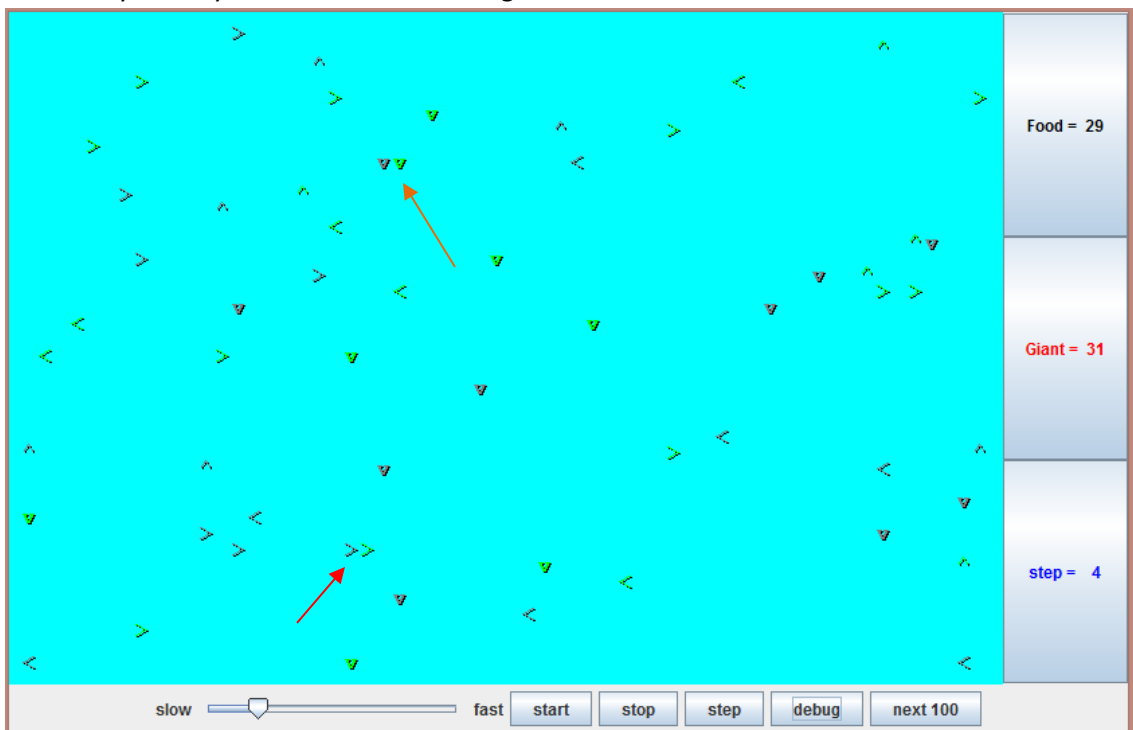
- The simulation space contains numerous instances of the string "fie" scattered across the area.
- The sidebar on the right shows "Giant = 30" in red text and "step = 6" in blue text.
- The control panel at the bottom is identical to the top screenshot, with the speed slider and buttons.



2. Giants turn right when they see wall or themselves. They should move along the wall in clockwise direction.

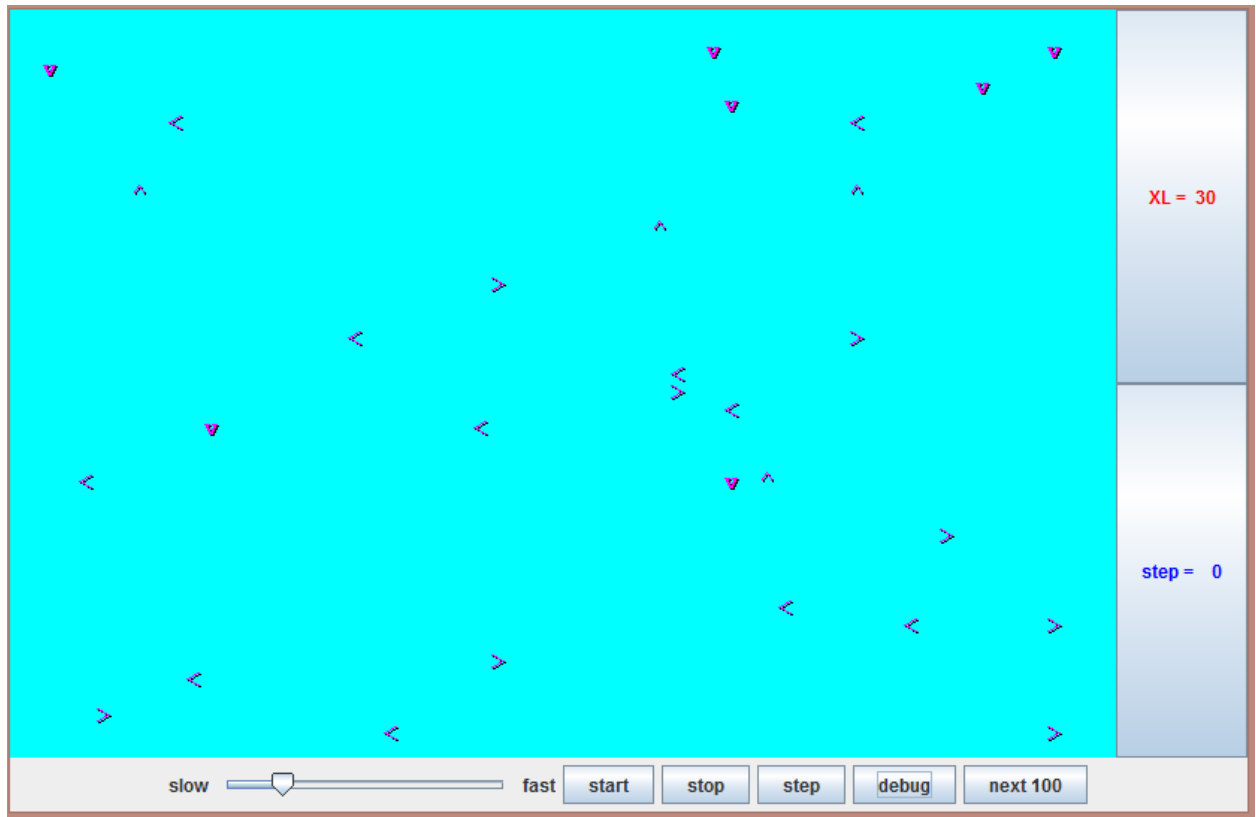


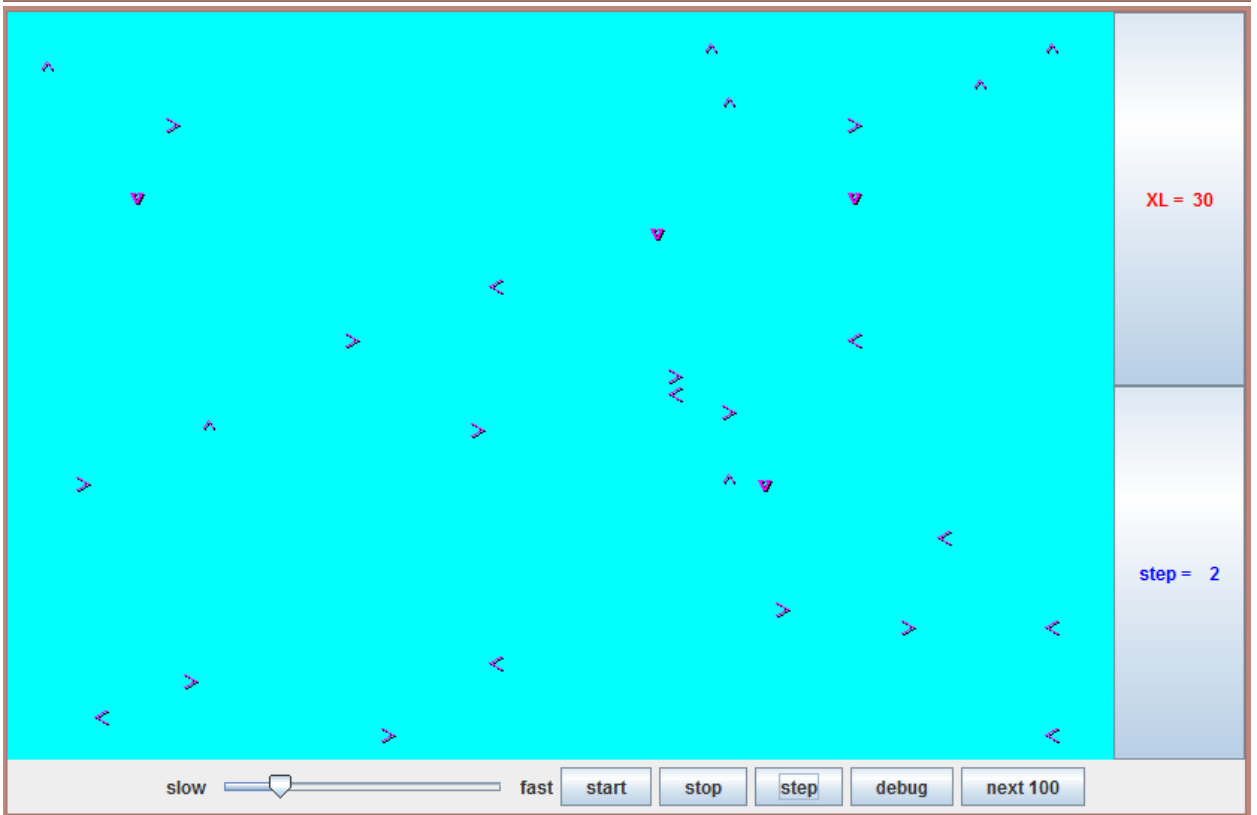
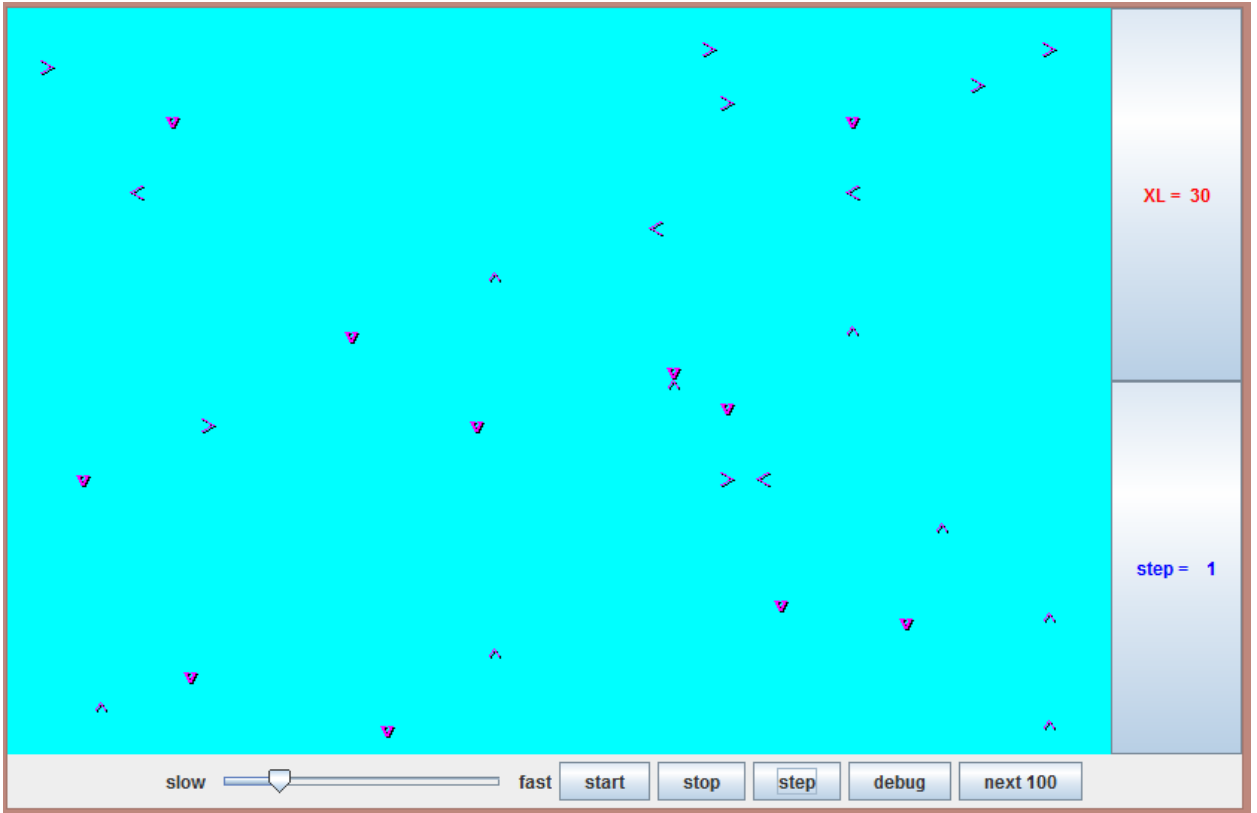
3. Giants only infect other species when they are in front of giants. Therefore, when food is introduced in the world, giants will only infect them when they are in front and ignore them when they are anywhere else around the giants.

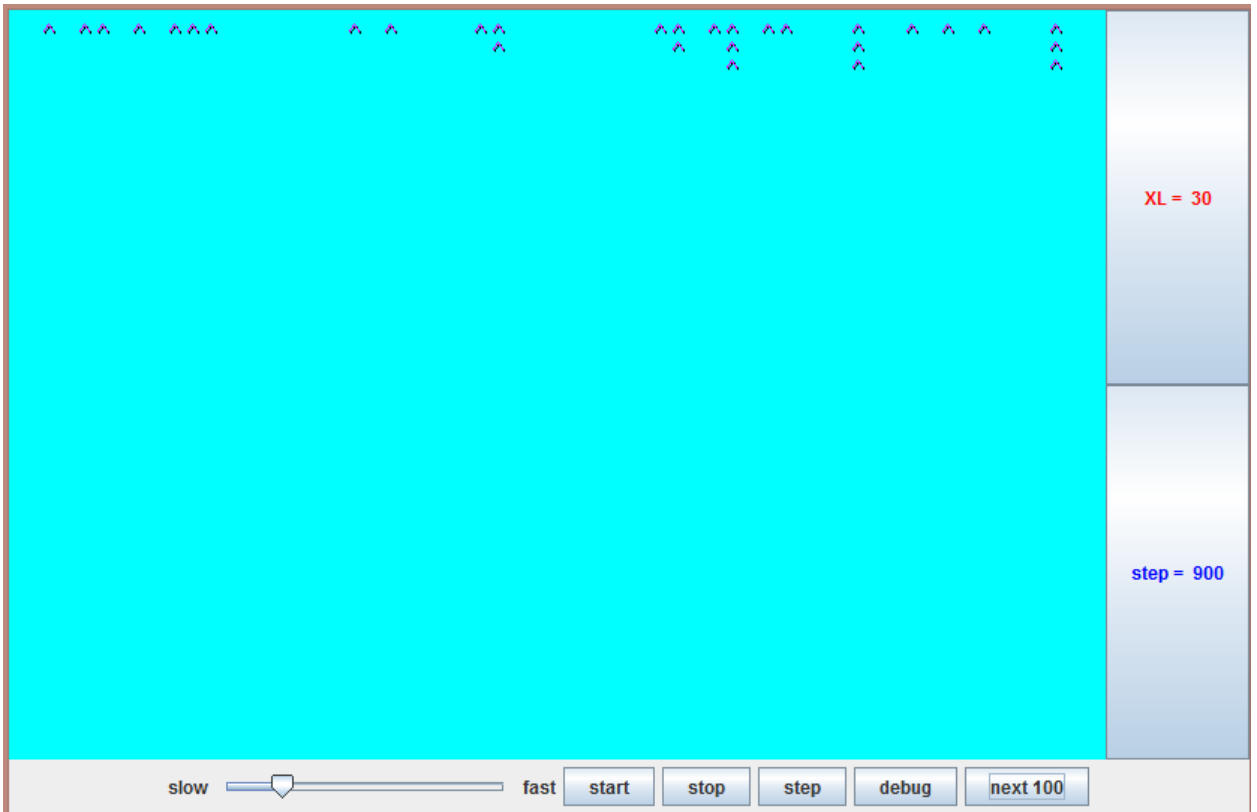
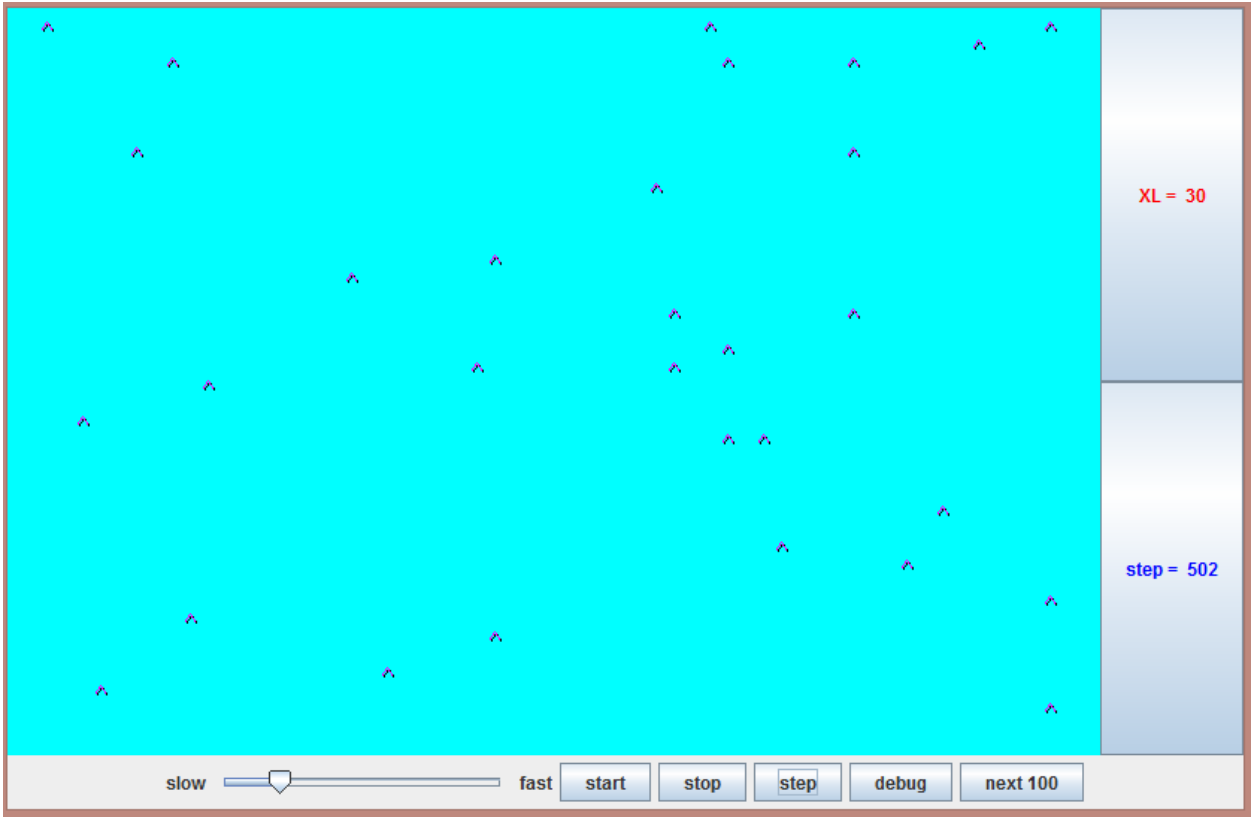


XL Class

1. XLs stay at their original place and rotate counterclockwise for 500 moves. On the 500th move, XLs will turn and move to North until they hit wall or themselves for other 500 moves. On the 1000th move, XLs stay at its place and rotate for another 500 moves, then head East for 500 moves, so on and so forth.











2. XLs only infect other species when they are in front of XLs when XLs are in stay-and-rotate mode and moving mode.

