Test Report

1. Test Plans

   (1) Test the action of a Jumper in the bounded grid when there is **no other Actors** in the grid

   Why: To meet the basic actions of a Jumper: when facing the edge of the grid and so on

   (2) Test the action of a Jumper in the bounded grid when there **exists any Actor** in the grid

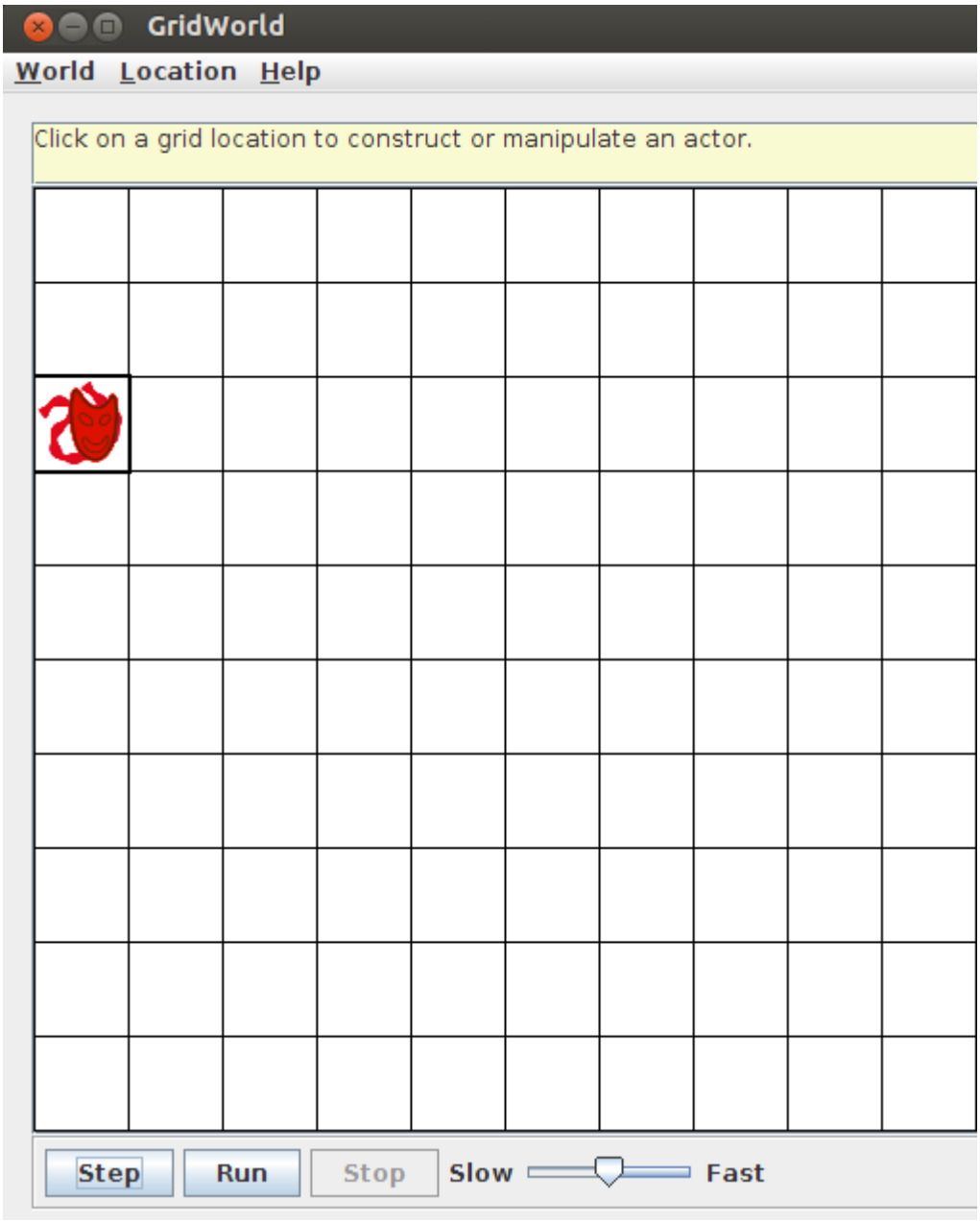
   Why: Can test the actions of the Jumper when it is facing other Actors.

2. Test Cases

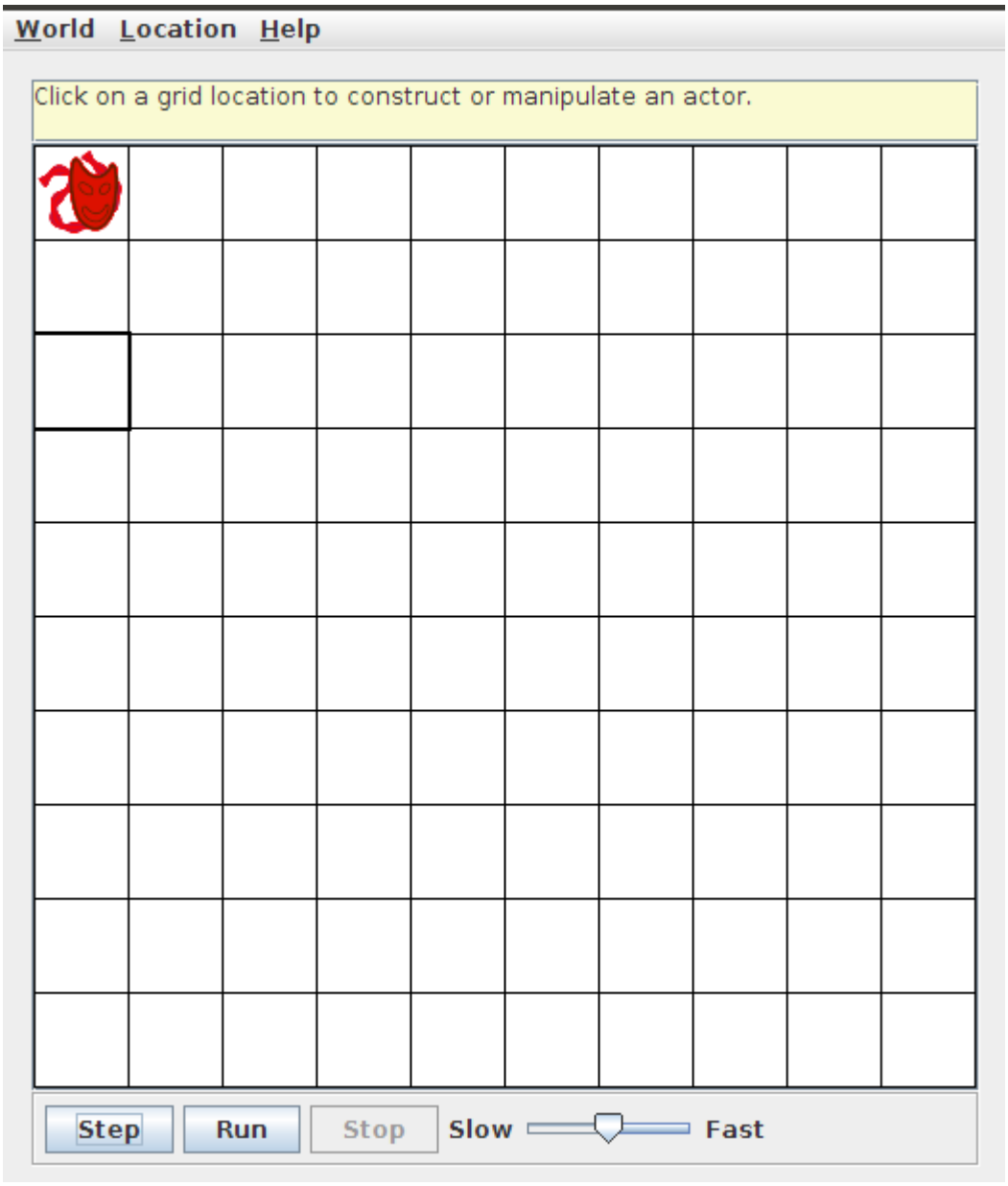
   (1) For the **"no other Actors"** case, I defined three Jumper:

   objects:aJumper(red),bJumper(orange),cJumper(blue)

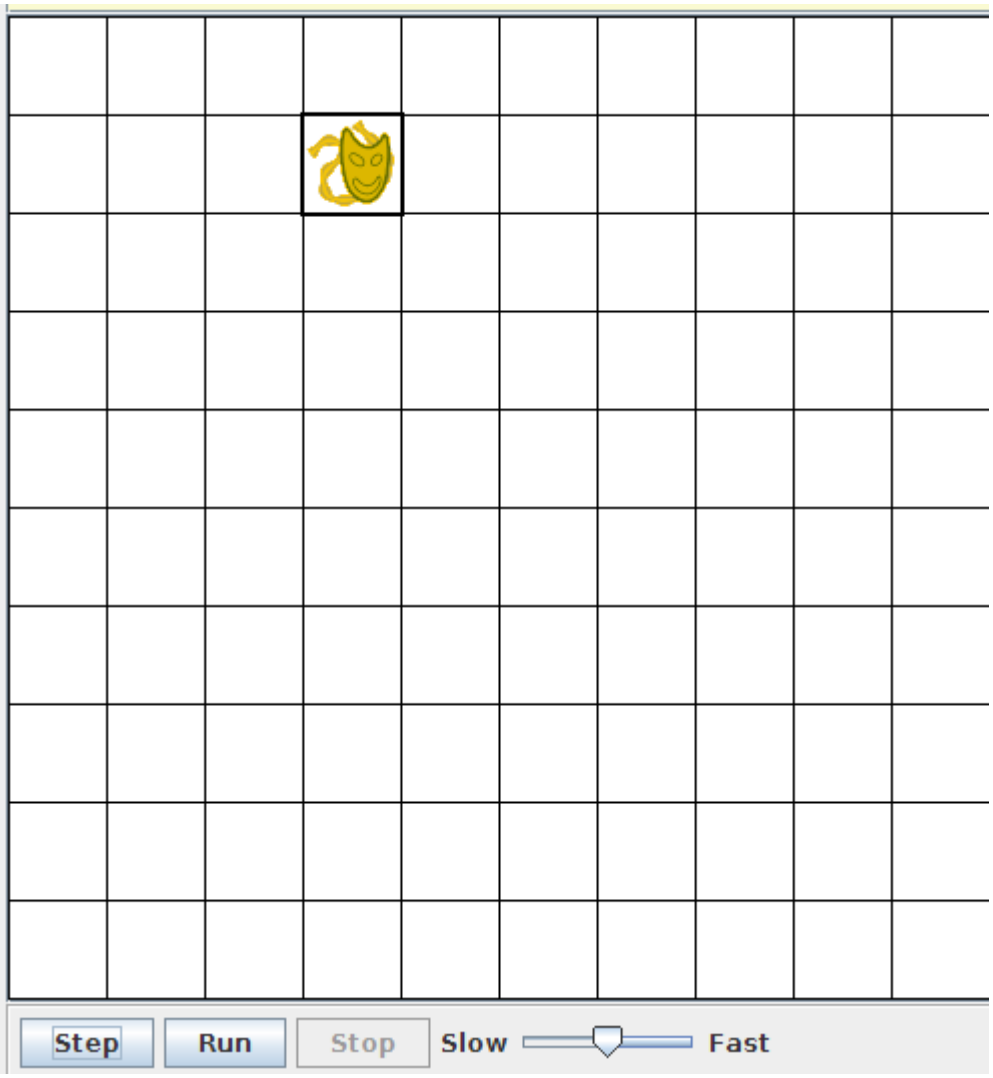
   For the first one(red): location(2, 0)



It will move to (0, 0) if we click the “Step” button.

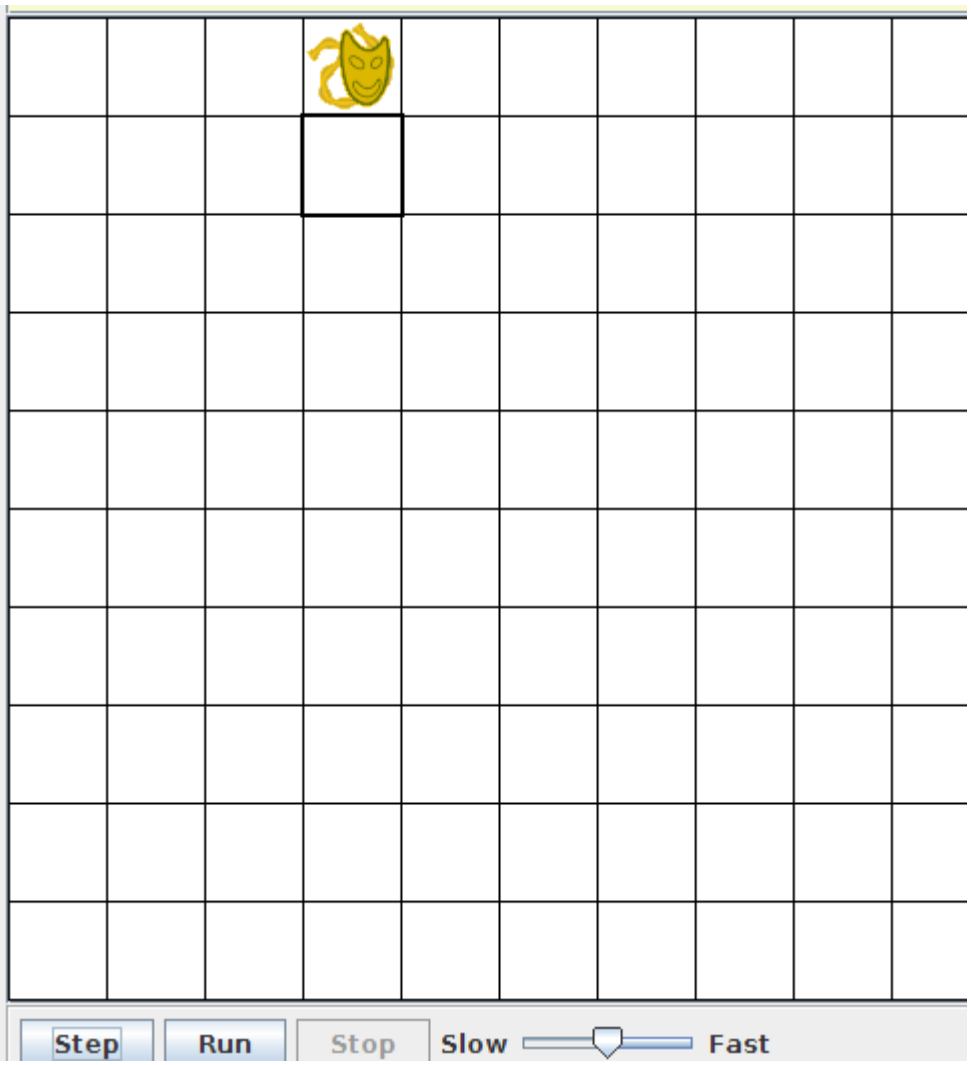


For the second one(orange): location(1, 3)

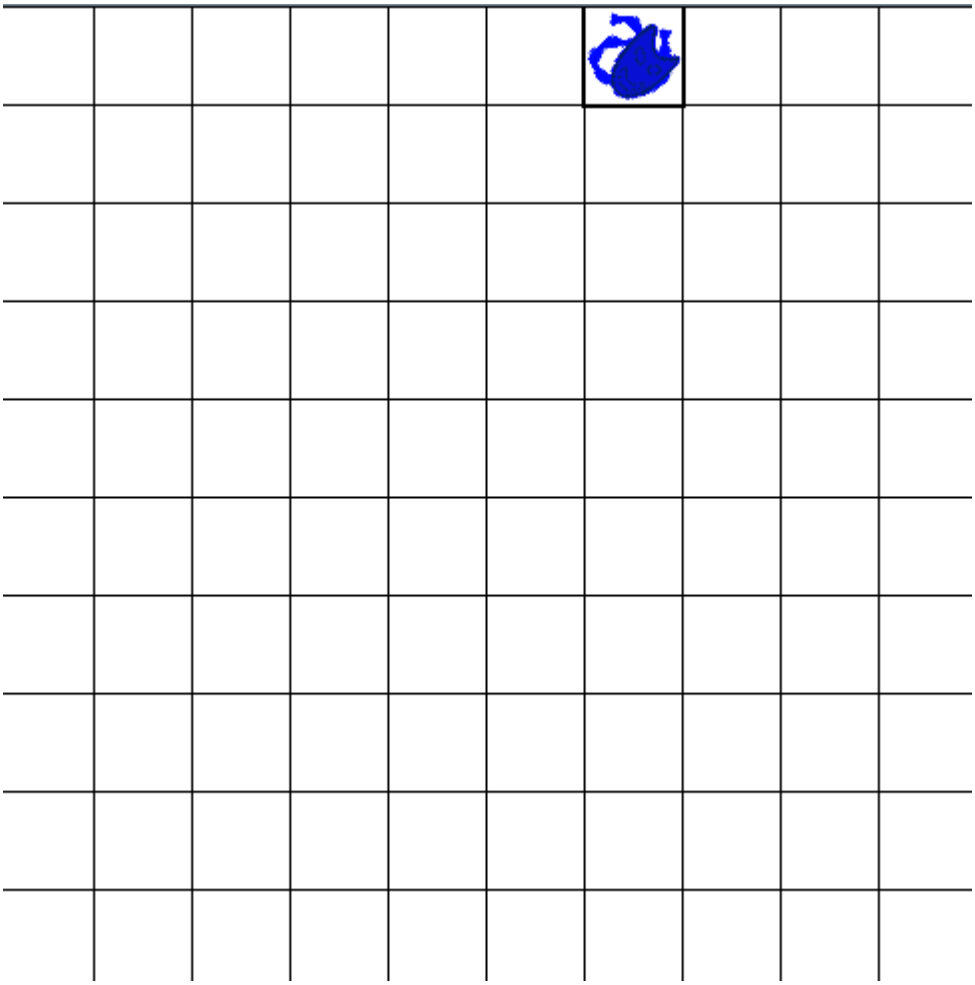


It will move to (0, 3) if we click the “Step” button.

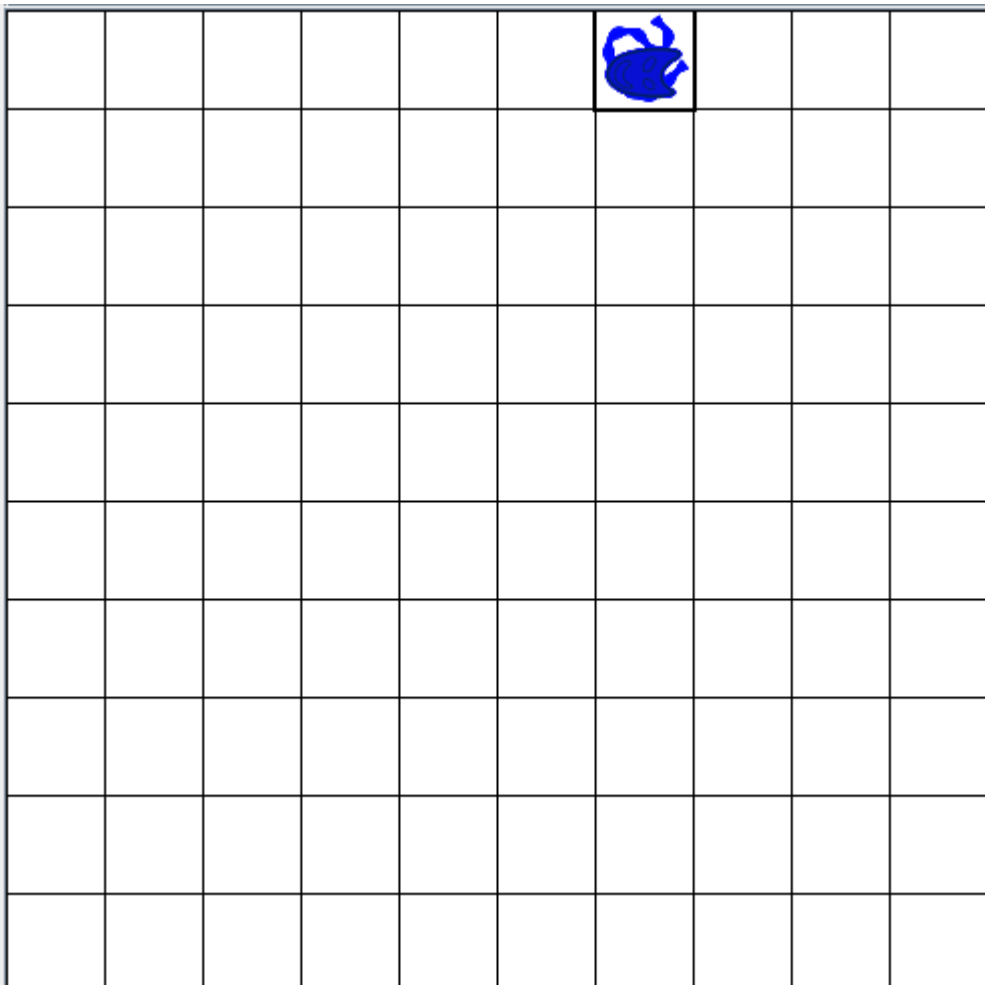
Because there is out of the grid two cells in front of it.

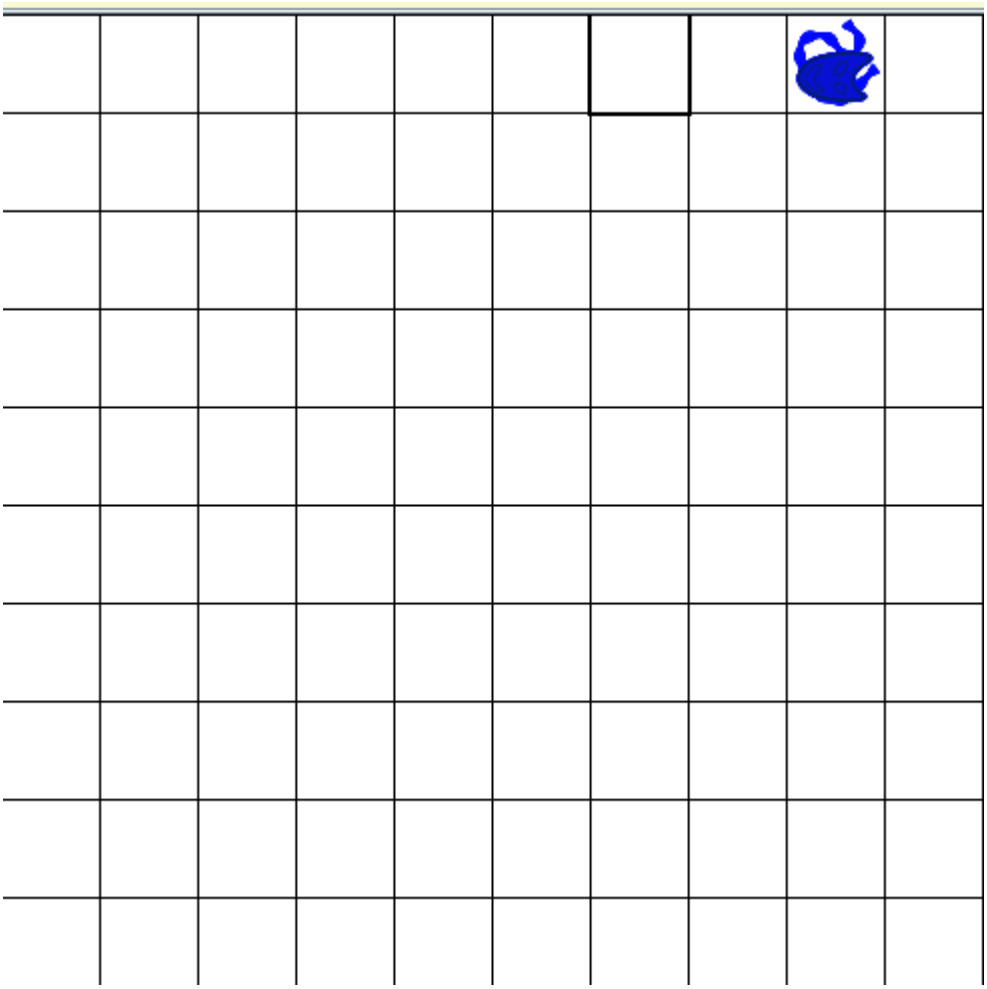


For the third one(blue): location(0, 6), direction(northeast)



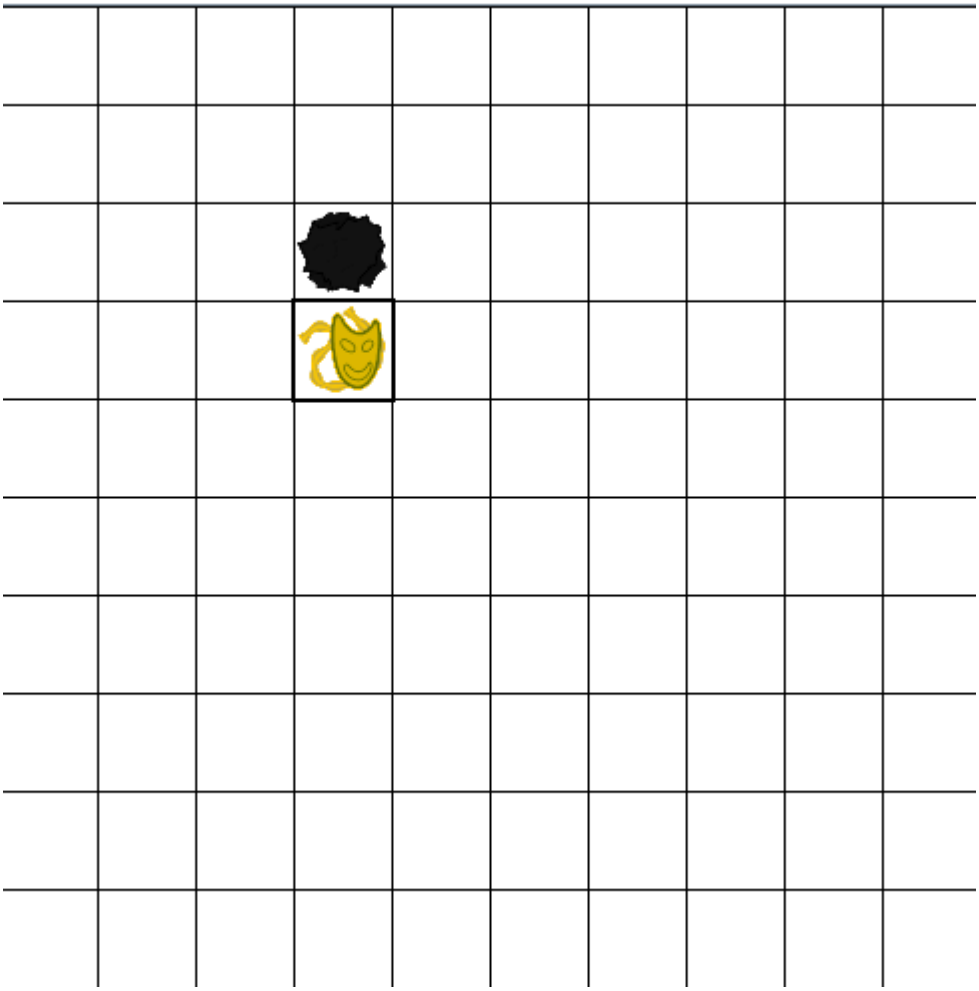
It will turn 45 degrees and then move to (0, 8) if we click the “Step” button twice.



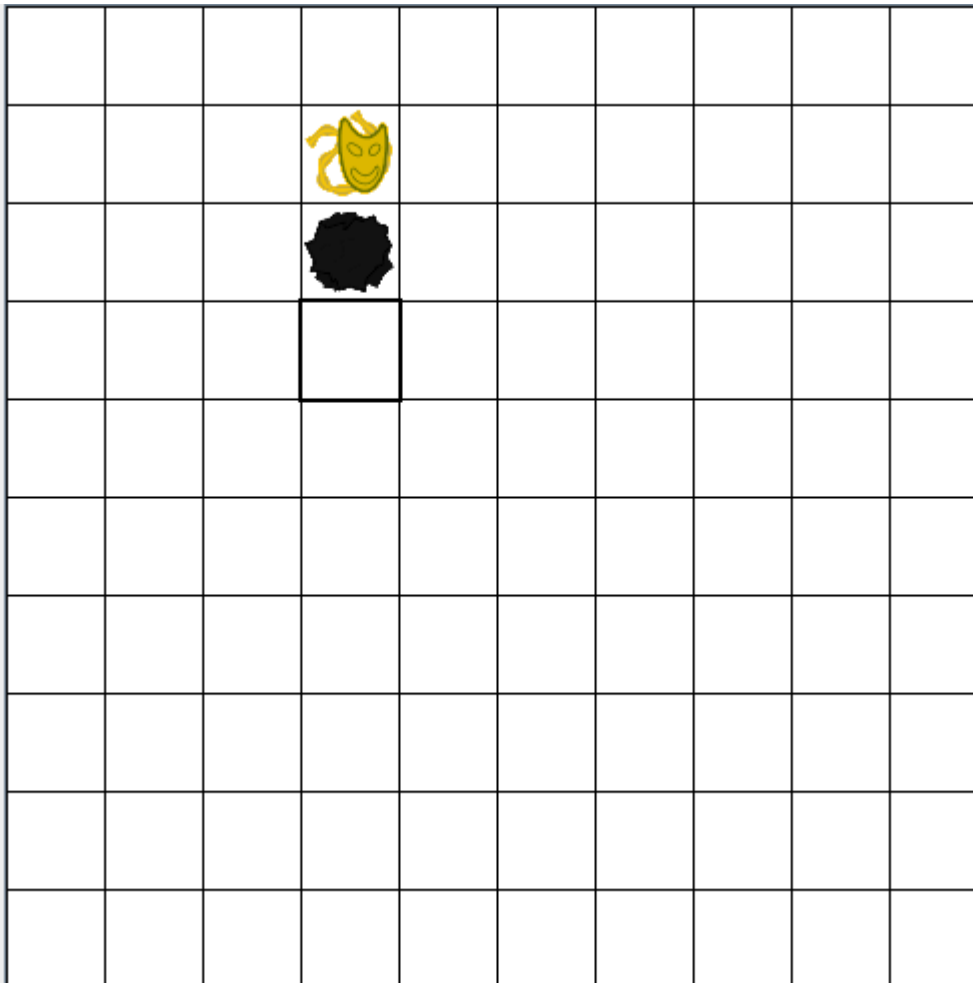


(2) For the **“exists any Actor”** case, I defined dJumper(orange), eJumper(pink), rock(black), flower(red)

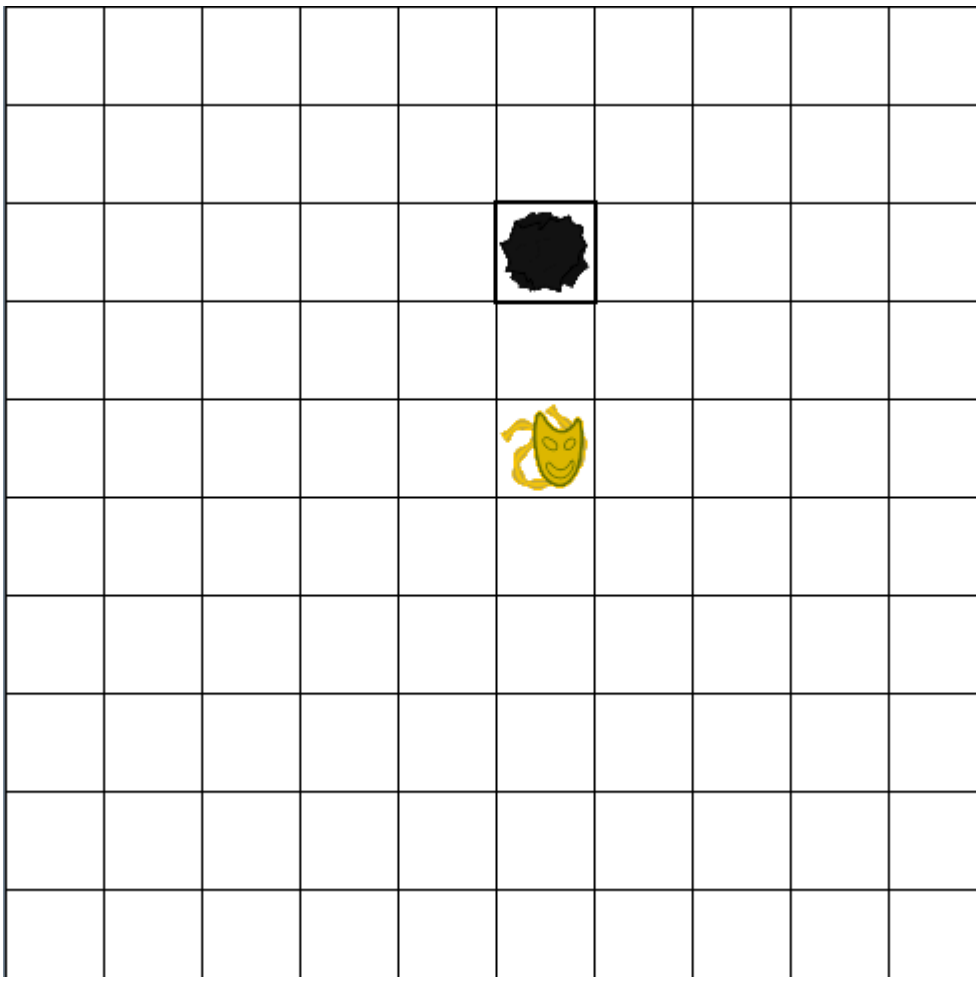
For the first one, I test the case that the dJumper faces a rock in front of it.



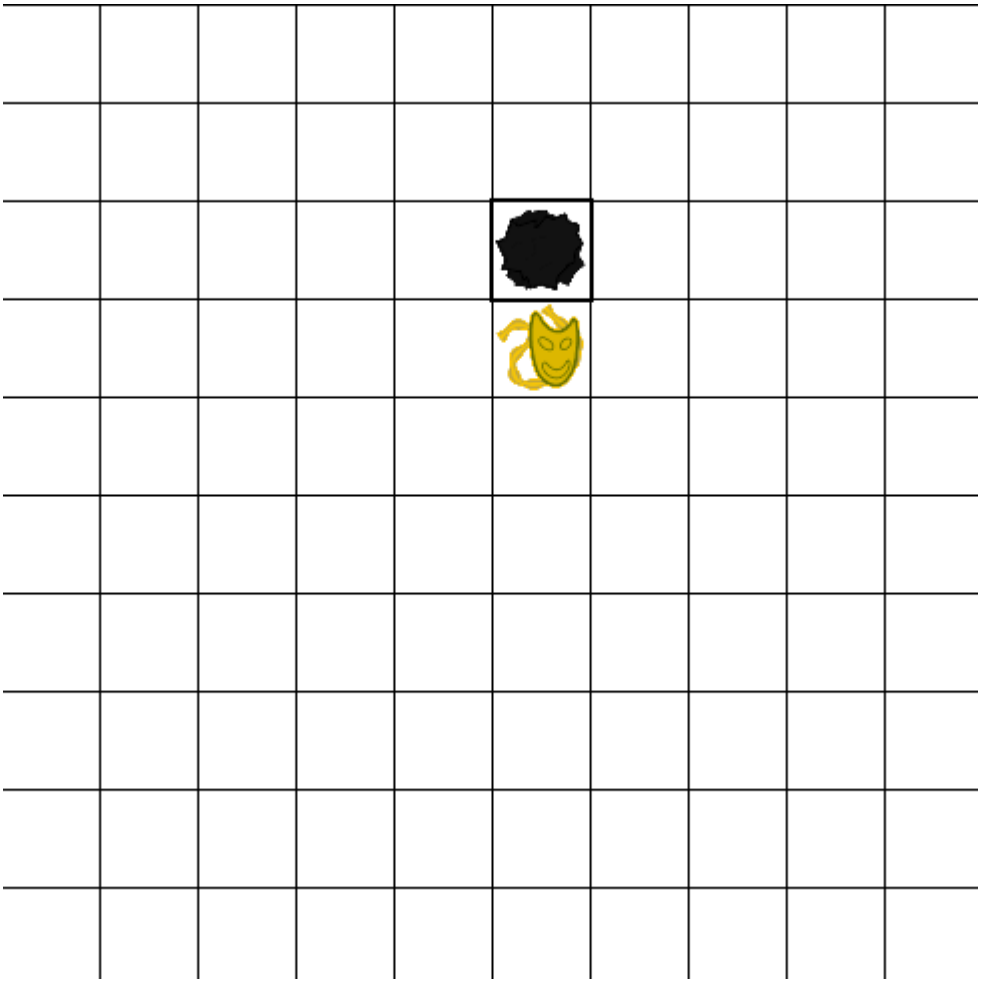
It will jump over the rock if we click the “Step” button.



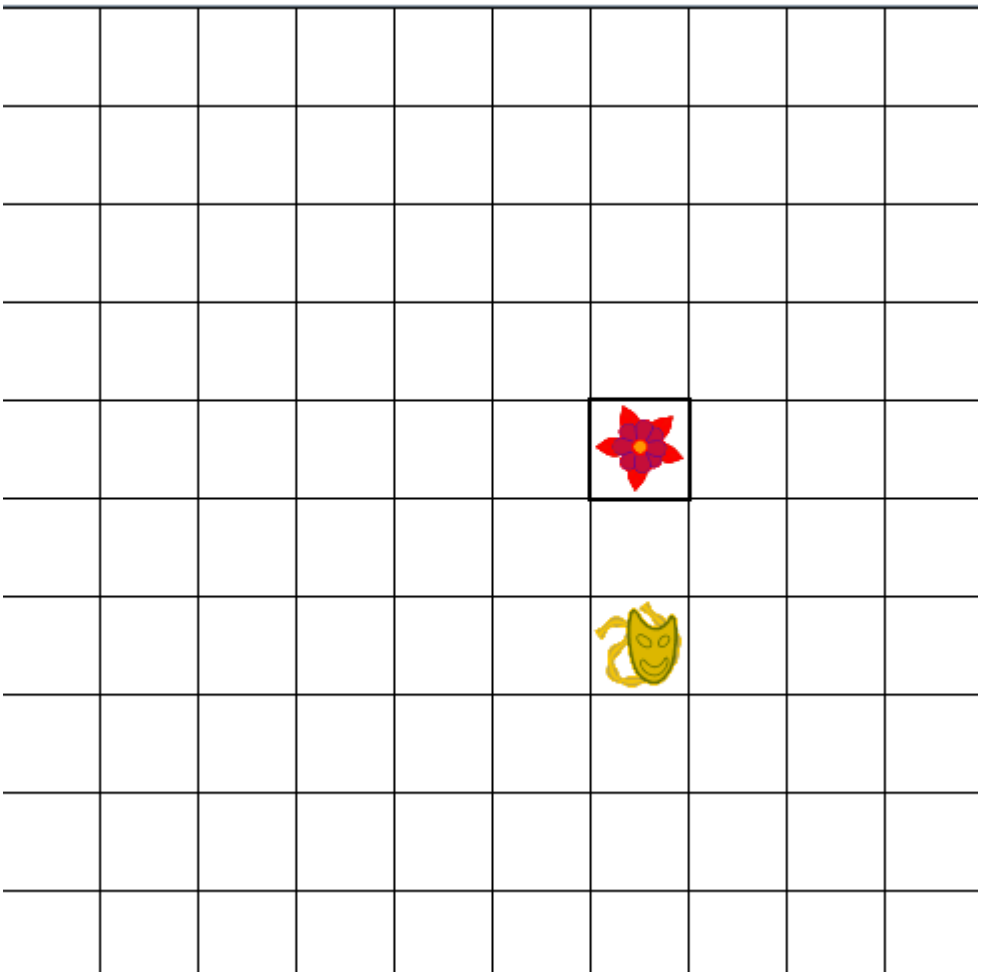
For the second one, I test the case that the dJumper faces a rock two cells in front of it.



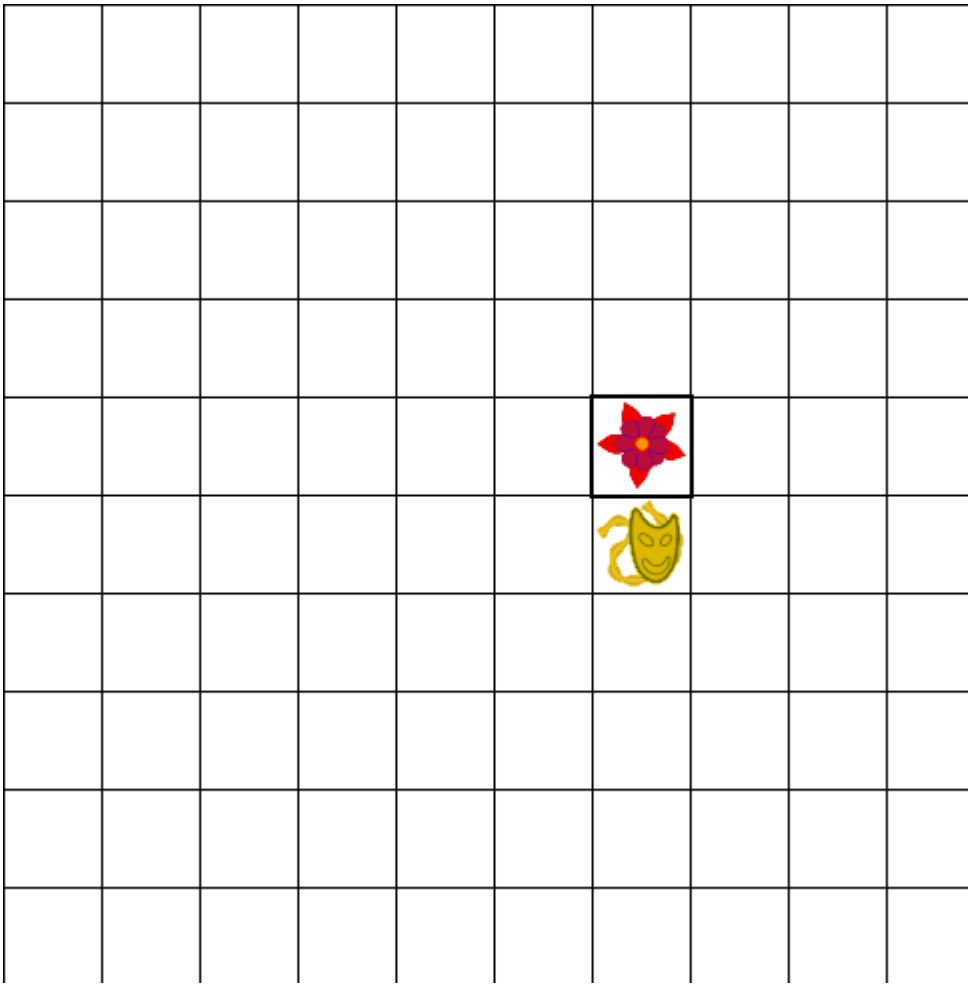
It will move one cell if we click the “Step” button.



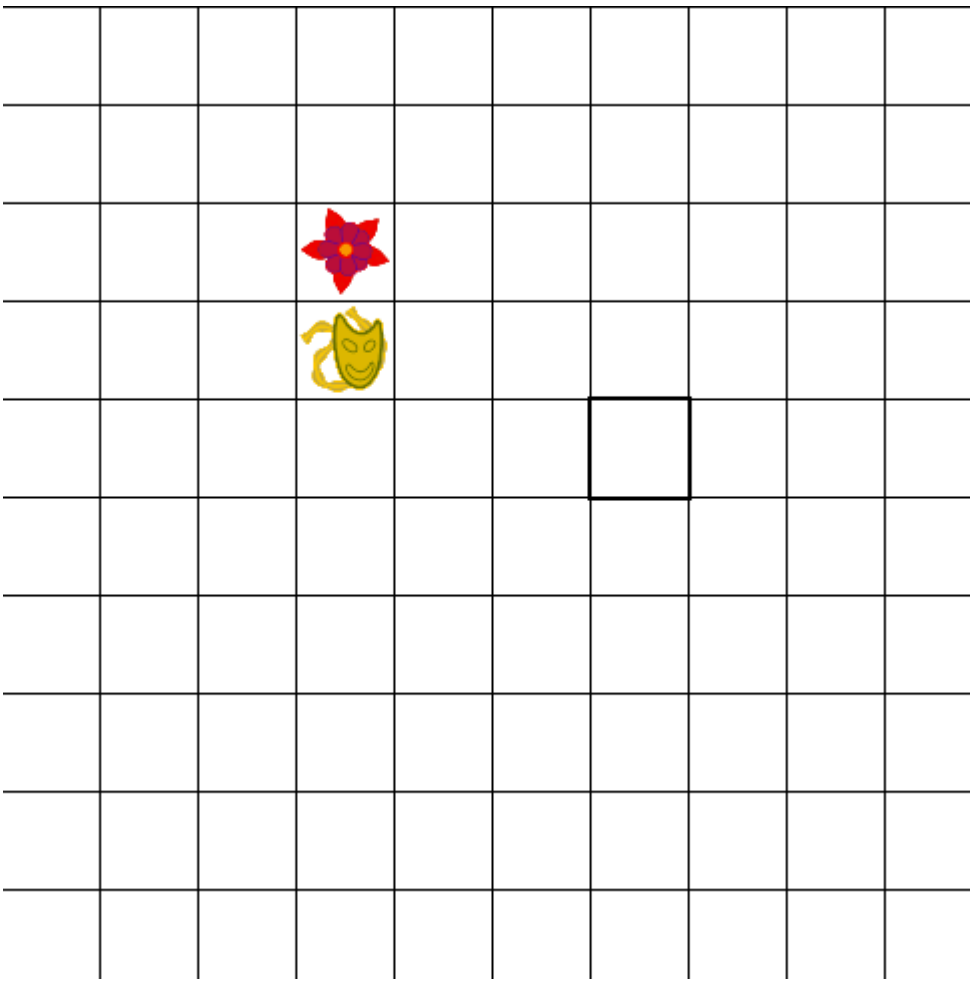
For the third one, I test the case that the dJumper faces a flower two cells in front of it.



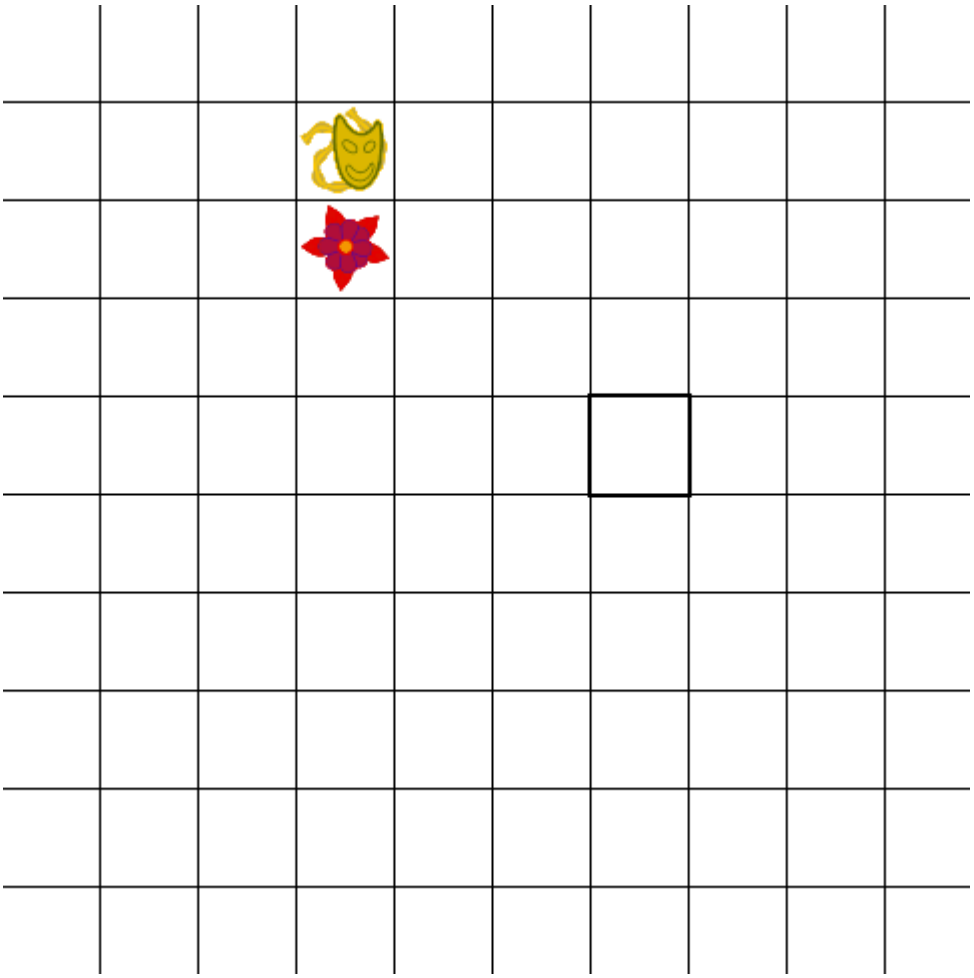
It will move one cell if we click the “Step” button.



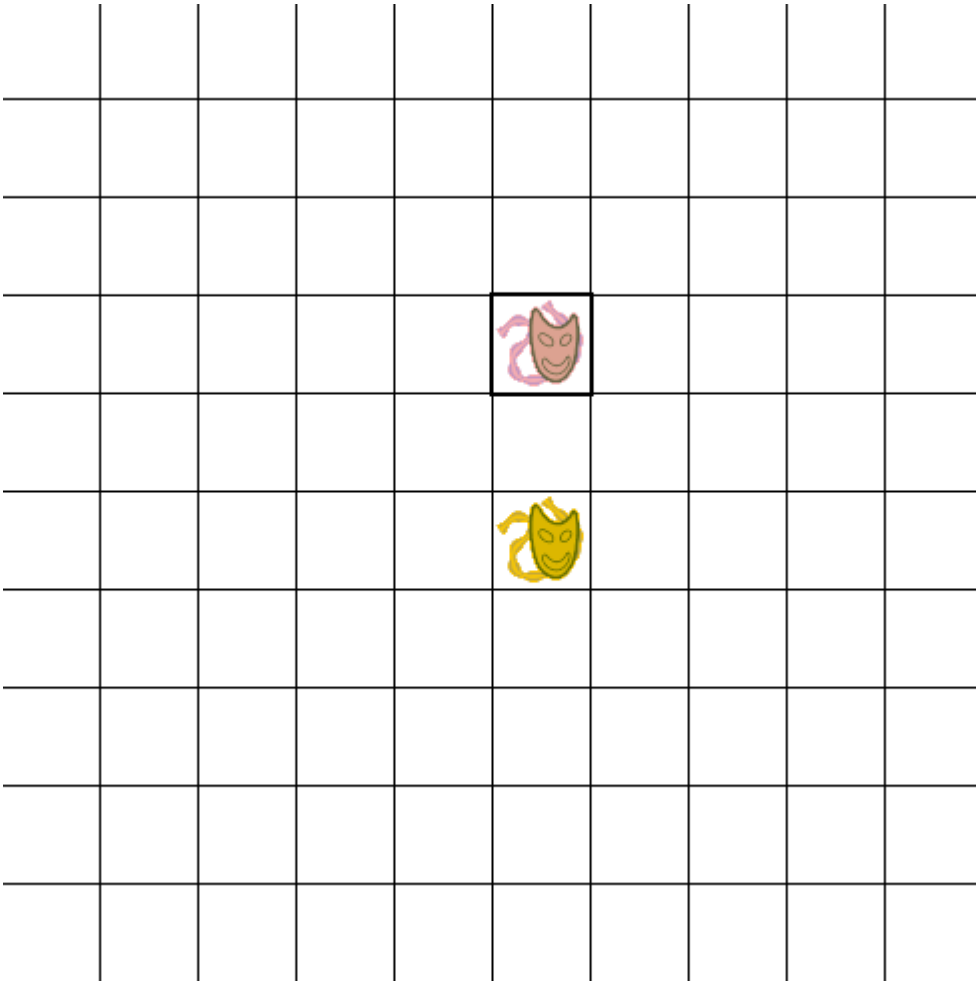
For the fourth one, I test the case that the dJumper faces a flower in front of it.



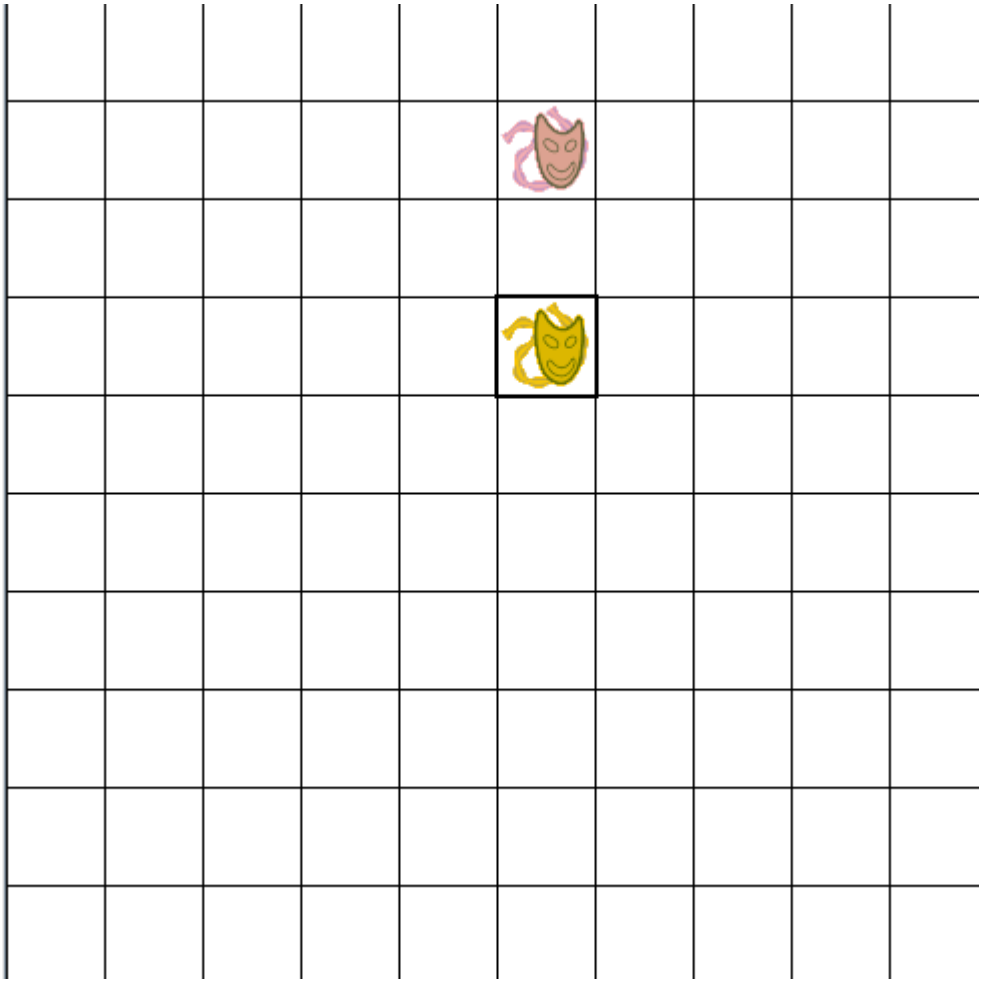
It will jump over the flower if we click the “Step” button.



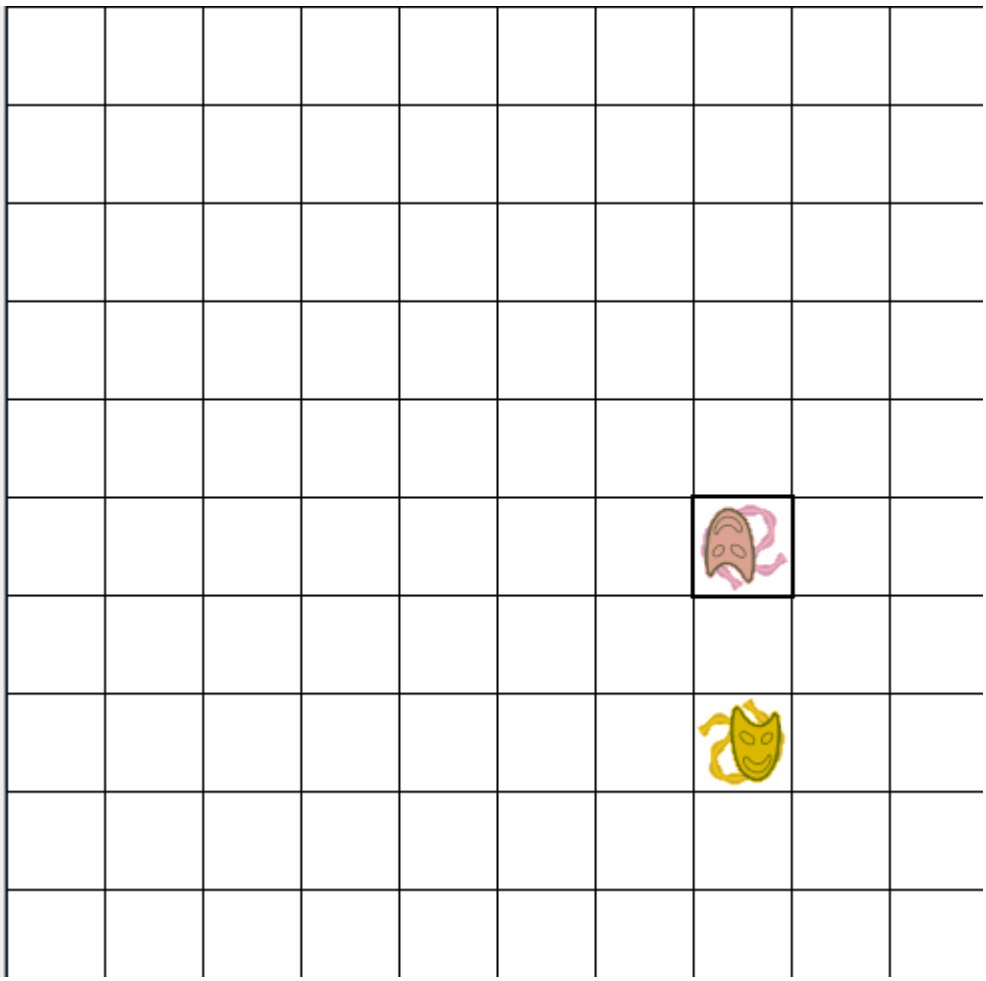
For the fifth one, I test the case that one of the jumpers is two cells in front of the other one.



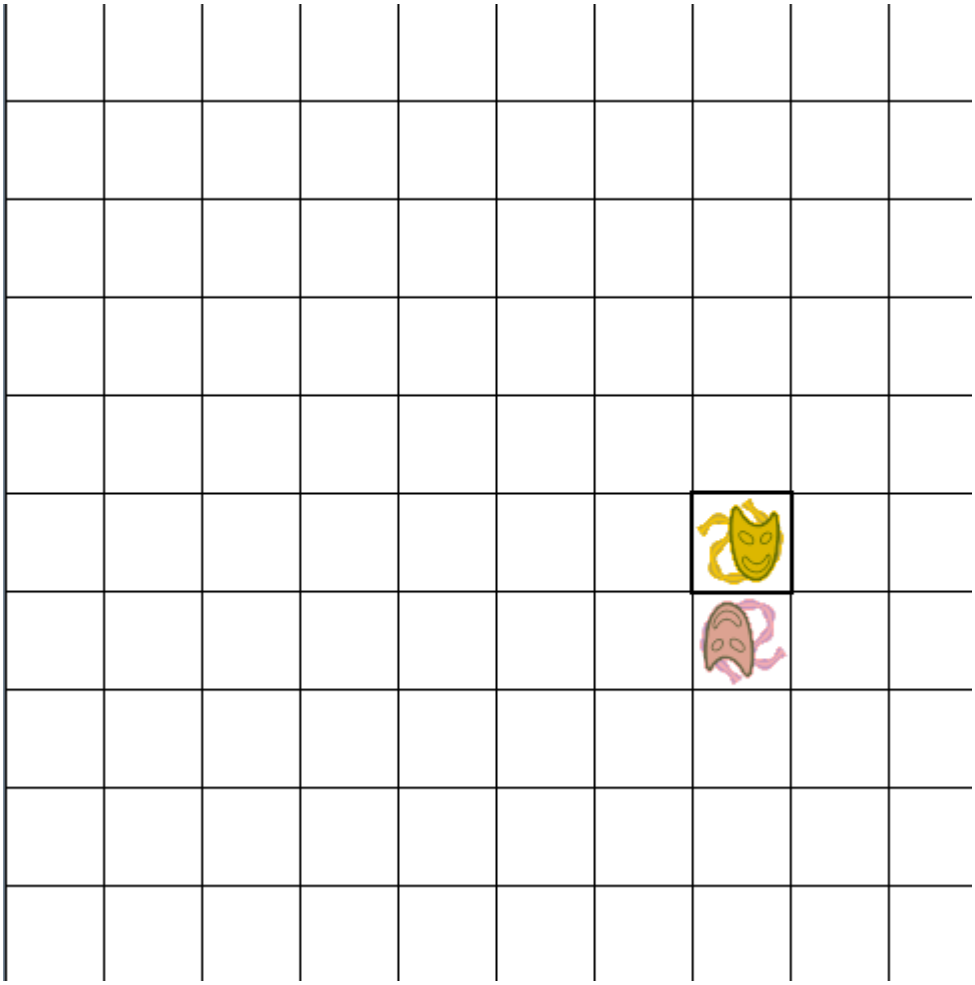
Both of them will move two cells at the same time if we click the “Step” button.



For the sixth one, I test the case that a jumper encounters another one in its path.



The pink one will move one cell down first and then the orange one will jump over the pink one and arrive at the location of the pink one.



3. Test Result

   All the cases are satisfied with the expected results, which can roughly prove that my design meets the demand and implements the requirements.