

Virus Wars

PLOG – 2018

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Descrição

O jogo é baseado na expansão de vários vírus tendo sido criado algures nos anos 80.

Regras

É jogado por dois jogadores – azul e vermelho - cujo objetivo é deixar o oponente sem jogadas possíveis.

Começando pelo azul, os jogadores têm 5 jogadas por turno, sendo que cada jogada pode ser de 2 tipos:

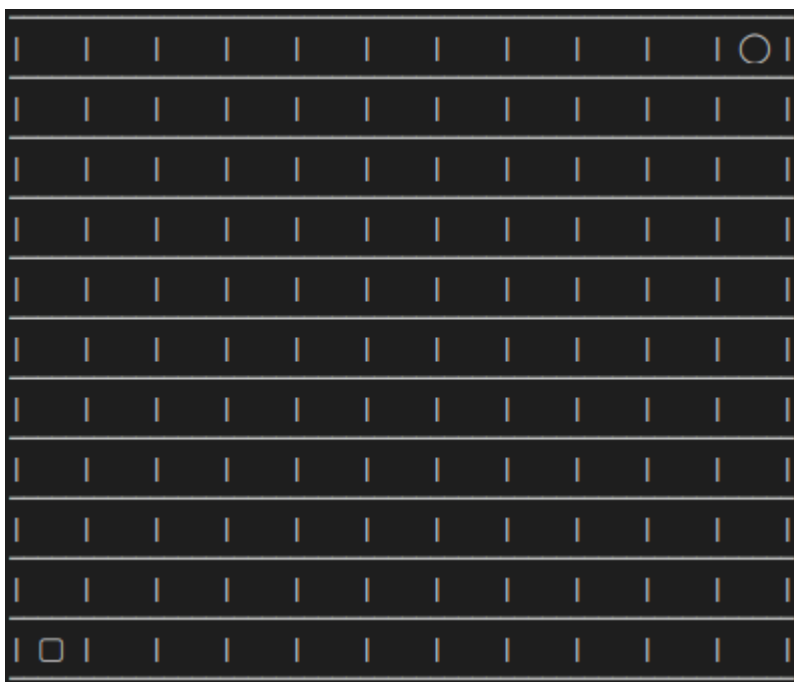
- Colocar um vírus numa célula acessível vazia no tabuleiro
- Absorver – *zombificar* - um vírus oponente em qualquer célula acessível do tabuleiro, p.ex. trocar um vírus adversário por um estado *zombificado* da cor do jogador, que fica permanente até ao fim do jogo, não podendo ser “acordados”, “recuperados” ou removidos do tabuleiro

Uma célula é acessível se:

- Está verticalmente, horizontalmente ou diagonalmente adjacente a um vírus já presente do jogador no tabuleiro, mesmo tendo sido colocado num mesmo turno
- Está verticalmente, horizontalmente ou diagonalmente adjacente a um conjunto de zombies ligados da cor do jogador, mesmo que os zombies tenham aparecido no mesmo turno

Exemplos

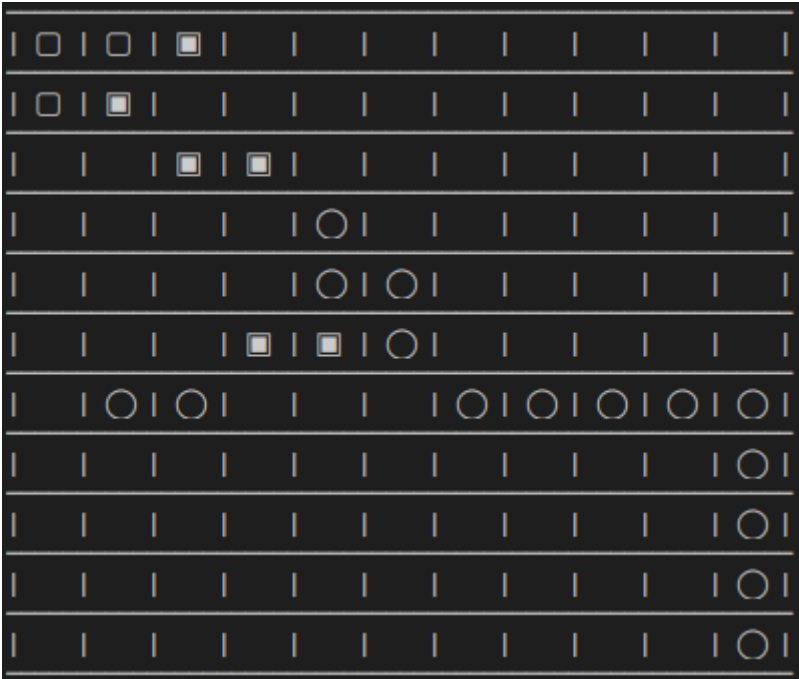
Início do jogo:



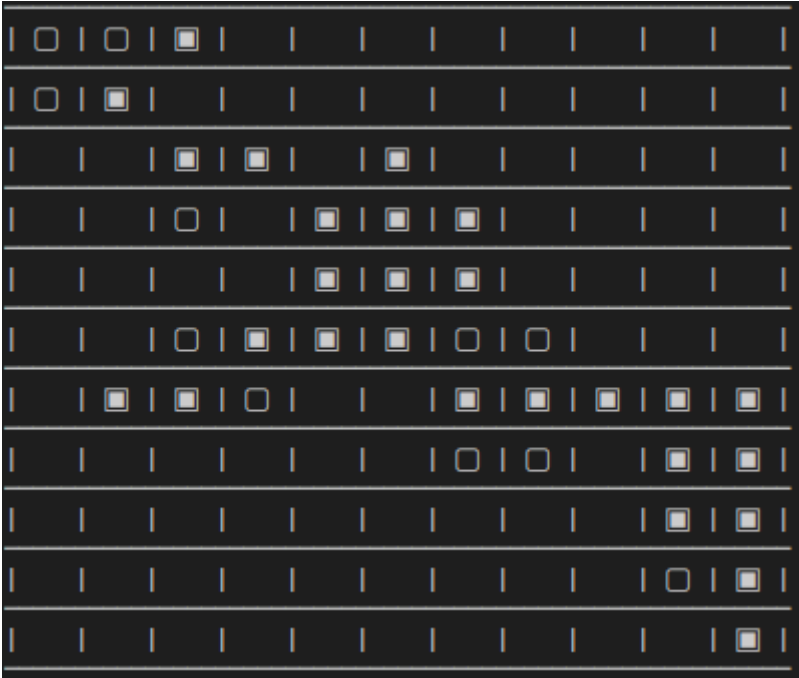
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<http://www.iggamecenter.com/info/en/viruswars.html>

Durante o jogo:



Fim do jogo:



Representação do Jogo

```
1 display_game(Board, Player):-
2     display_separator,
3     display_matrix(Board).
4
5 start_gameplay(L):-
6     L = [
7         [1,0,0,0,0,0,0,0,0,0,0],
8         [0,0,0,0,0,0,0,0,0,0,0],
9         [0,0,0,0,0,0,0,0,0,0,0],
10        [0,0,0,0,0,0,0,0,0,0,0],
11        [0,0,0,0,0,0,0,0,0,0,0],
12        [0,0,0,0,0,0,0,0,0,0,0],
13        [0,0,0,0,0,0,0,0,0,0,0],
14        [0,0,0,0,0,0,0,0,0,0,0],
15        [0,0,0,0,0,0,0,0,0,0,0],
16        [0,0,0,0,0,0,0,0,0,0,0],
17        [0,0,0,0,0,0,0,0,0,0,2]
18    ].
19
20 mid_gameplay(L):-
21     L = [
22         [1,1,3,0,0,0,0,0,0,0,0],
23         [1,3,0,0,0,0,0,0,0,0,0],
24         [0,0,3,3,0,0,0,0,0,0,0],
25         [0,0,0,0,2,0,0,0,0,0,0],
26         [0,0,0,0,2,2,0,0,0,0,0],
27         [0,0,0,3,3,2,0,0,0,0,0],
28         [0,2,2,0,0,0,2,2,2,2,2],
29         [0,0,0,0,0,0,0,0,0,0,2],
30         [0,0,0,0,0,0,0,0,0,0,2],
31         [0,0,0,0,0,0,0,0,0,0,2],
32         [0,0,0,0,0,0,0,0,0,0,2]
33    ].
34
35 final_gameplay(L):-
36     L = [
37         [1,1,3,0,0,0,0,0,0,0,0],
38         [1,3,0,0,0,0,0,0,0,0,0],
39         [0,0,3,3,0,3,0,0,0,0,0],
40         [0,0,1,0,3,3,3,0,0,0,0],
41         [0,0,0,0,3,3,3,0,0,0,0],
42         [0,0,1,3,3,3,1,1,0,0,0],
43         [0,3,3,1,0,0,3,3,3,3,3],
44         [0,0,0,0,0,0,1,1,0,3,3],
45         [0,0,0,0,0,0,0,0,0,3,3],
46         [0,0,0,0,0,0,0,0,0,1,3],
47         [0,0,0,0,0,0,0,0,0,0,3]
48    ].
49
```

```
50 display_matrix([]).
51 display_matrix([H | T]):-
52     display_separated_line(H),
53     display_separator,
54     display_matrix(T).
55
56 display_separated_line([]):- write('|'), nl.
57 display_separated_line([H | T]):-
58     print_cell(H),
59     display_separated_line(T).
60
61 display_line([]):- nl.
62 display_line([H | T]):-
63     traducao(H, X),
64     put_code(X),
65     display_line(T).
66
67 print_cell(C):-
68     write('|'),
69     traducao(C, X),
70     write(' '),
71     put_code(X),
72     write(' ').
73
74 display_separator:-
75     display_line([111,111,111,111,111,111,111,111,111,111,111,111,
76         111,111,111,111,111,111,111,111,111,111,
77         111,111,111,111,111,111,111,111,111,111,
78         111,111,111,111,111,111,111,111,111,111,
79         111,111,111,111,111,111,111,111,111,111]).
80
81 traducao(0, 32).
82 traducao(1, 9634).
83 traducao(2, 9711).
84 traducao(3, 9635).
85 traducao(4, 9673).
86 traducao(111, 9472).
```

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