|  |  |  |  |
| --- | --- | --- | --- |
| Relational Operator | C-like language |  |  |
| AT\_LEAST | >= |  |  |
| EQUAL\_TO | == |  |  |
| NOT\_EQUAL\_TO | != |  |  |
| AT\_MOST | <= |  |  |
| LESS\_THAN | < |  |  |
| MORE\_THAN | > |  |  |

If Grey

If t==1

== if >=2 neighbour are Green

== Probability 100% to change to Green

If Grey

if t==3.2

== if 1 neighbour is Olive

== Probability 100% change to Olive

 If t==3.3

 == if 1 neighbour is Olive, and 1 neighbour is Yellow

 == Turn Olive, 100%

If Red

If t==1

== if >=3 neighbours are Green, but 0 neighbour Grey

== Turn to yellow, 100% Probability

If t==2

 == If 3 neighbours are Yellow

Turn to yellow, random no. 100%

If t==3.1

Turn to Olive, at (x6, y1), 100% Probability

If Magenta

If t==1

 If at least 1 neighbour is Black >=1

Turn to Yellow, 100% Probability

 If t==2

 If 1 neighbour is green

Turn to Yellow, 100% P

If Orange

 If t==1

 If 1 neighbour is Light Grey

 Turn to Yellow, 100%

If Green

 If t==1

 1 north neighbour is Maroon, and 2 neighbours are Red

 Turn Beige, 100%Pmatch

If t==2

 If north of 2 North neighbour is Orange,

 Turn to Orange, 100% P

 If 2 neighbours are Yellow, and 1 neighbour is Orange,

 Turn to Yellow, 100% Probability

 If t==3.1

 If 3 neighbours are Yellow,

 Turn Yellow, 100% Probability

 If 1 neighbour is Yellow, and 1 Neighbour is Blue

 Turn Yellow, 100% P

 If 1 neighbour is Yellow, 1 neighbour is Purple,

 Turn Yellow, 100% P

 If 1 neighbour is Yellow, 1 neighbour is Orange

 Turn Yellow, 100% P

 If 1 neighbour is Beige, 1 neighbour is Black,

 Turn Blue, 100% P

 If t==3.2

If 1 neighbour is Olive, and 1 unit is Yellow

 Turn Olive, 100% P

 If no neighbour is Grey or Olive, within 2 units away,

 Turn Yellow, 100% P

If t==3.3

 If 1 neighbour is Olive and 1 unit is Green (West),

 Turn Olive, 100% P

If 2 Neighbours are Yellow,

Turn Yellow, 100% P

If t==3.4

(Chebyshev model) At least 1 neighbour Grey (x4,y10) is 2 units away (x-2) & (y-2), and NO more than 1 neighbour is Olive

 Turn Olive, 100%

If Light Grey

 If t=2

 Turn Yellow, 100%

If Black

 No change

If purple

 No change

If Maroon

If t==1

 Turn Yellow 100%

If Yellow

 If t==3.1

 If 2 neighbours are Black

 Turn Blue, 100% Probability

If t==3.3

 If 1 neighbour is Olive and 1 unit is Green (West),

 Turn Olive, 100% P

If t==4

 If >= 1 neighbour is Black,

 Turn Blue