FSM of general Cell

① general — needs energy, can become any cell,
can absorb organic and transform it to energy
it can create up to 3 new cells, between each
new cell it creates wood, and then becomes
seed. General cell can move until it creates
first new cell

* Each cell when dies left energy and organic
* Each cell has TTL, except general it lives until has energy
* to much organic = infection, only root can survive here
* to much energy = deadly charge, only antena can leave here,
  decreases with time

* general cell can eat any cell except root and wood to receive
energy

GCell : { Energy
         cells_created <= 3
         wodded = 0/1
         organic

       }
Actions : Move/Absorb/Create_Cell/Becomes new Cell/
          Eat Cell/Die

GCell : { Energy

cells_created <= 3

wodded = 0/1

organic

}

coordinates: (x,y)

Actions : Move/Absorb/Create_Cell/Becomes new Cell/

Eat Cell/Die

Absorb = organic + 1

Move/Create_Cell/Become Cell/= Energy − 1

Eat Cell = Energy + 1

Init:

Energy = 5
Cells_created = 0
wodded = 0
Organic = 0

1. Generate (will be weighted
Random Action: according to world)
Move/Absorb/
Create Cell/Become Cell/
Eat Cell

check neighbors in ETS

Idle, send status → timeout

organic − 1
energy + 1

Move - do random Move

Absorb

Absorb organic. → organic > 10 → Die

organic and
energy left

Create Cell

Become Cell

Create
random
Cell in
random
empty
direction

Weighted
random
choose

Energy + 1
Move in
needed
direction

Eat Cell