

## Game of Life

- Forge version  $\geq 0.0.16$ , template on Piazza @443
- Toroidal approximation of game of life (wraps around to simulate infinite board)
- How to get started?
  - Can talk about initial state
  - Can talk about transition states, terminal state, etc
  - Where do init, tran, and term come from?
    - Use of traces gives us transitions, including the initial and final state
  - tran is a field of the trace sig that has been introduced invisibly, gives you the next state (after the transition)

Find initial states that produce the following patterns:

- Still Lives: things that don't change between each state
- Oscillator: switches between only two states
- Glider: pattern will repeat while moving across the board
  - Cell in the next state is alive if the one above it was alive in the current state