Reindeers initial master plan draft

Reindeers

Santa Claus is coming to town

Master Plan

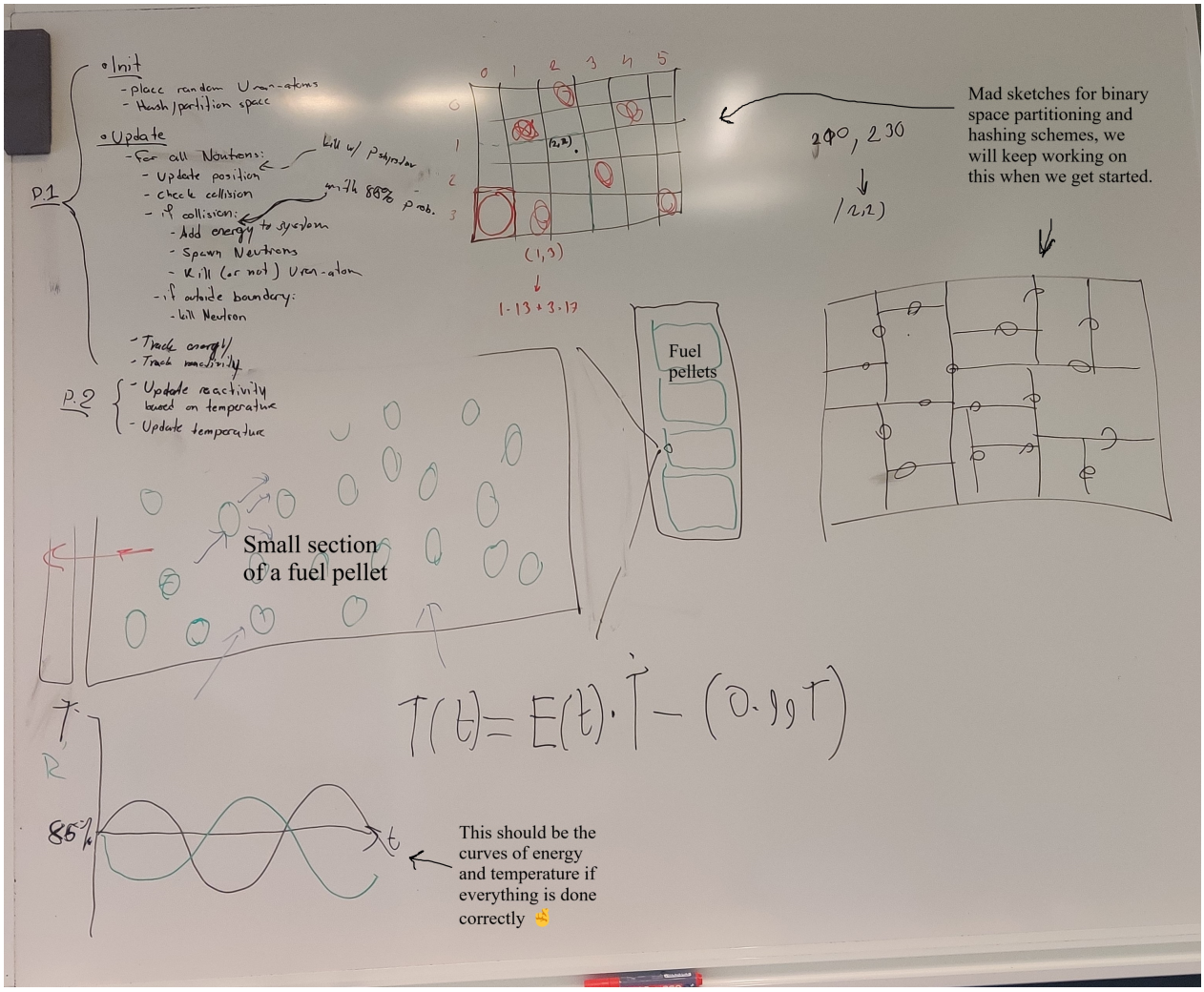

Figure 1: This is the plan, Lists are clarified below.

Lists in readable format:

First we must get something working at all before we add water pressure and temperature:

- Init:
  - place out uranium 235 atoms randomly.
  - hash/partition the space of uranium particles for quick lookup.
  - load the neutron howitzer
- Update; for all neutrons:
  - update position

  - use black magic hashing/partitioning to check for collisions.
  - if collision:
    * Destroy uranium
    * release energy
    * spawn more neutrons
  - if out of bounds:
    * remove neutron

If(when) that works out we will implement water temperature, water density that depends on water temperature, reactivity that depends on water density, and so on. Hopefully getting us the double sin curve in figure 1

The implementation should look like before but after each time step we would add:

- Tracking of energy
- Tracking of reactivity
- reactivity updates based on temperature
- temperature based on energy changes