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EECS 372 – Uri Wilensky

Progress Report 4

As functional as ever.

**Updates**

* Implemented heuristic-based decision making based on
  + Crowdedness
  + Wall proximity
  + Distance from self
  + Avg/min distance from exits
  + Avg heading difference of crowd
* Different heuristics are used with different weights when selecting different targets:
  + Exits
  + Checkpoints
  + Something else when no exits or checkpoints are visible
  + Picking an immediate target based the heading towards target
* Fixing other bugs that appeared after implementing heuristic behavior:
  + Tuned heuristic weights to get desired behavior
  + Gave people pre-existing knowledge of where exits are
  + Fixed indecisive turtles by keeping track of previous targets
* Created a third room with two walls to better test behavior

**TODO**

* Creating a way to measure the model.

**Rationale for Rules**

The heuristic behavior provides an intuitive and somewhat organic decision-making process for the turtles. For example, in an evacuative scenario, people tend to follow crowds, but if they happen to see an open exit, they’ll go straight for that instead. This and many other types of decisions are reflected in the heuristic model.

**Questions**

* Do I need more/different rooms?
* How should I measure the model?
  + Total time it takes to evacuate divided by number of turtles
  + Average time it takes for a turtle to evacuate
  + Something else? Is one measure enough?