Weekly reports are to be emailed to atbecker@uh.edu by 5:00pm on Tuesdays. The purpose of a weekly report is to: (1) give you text and images for your papers, thesis, and dissertation, (2) document progress, (3) identify if you are stuck or need resources.
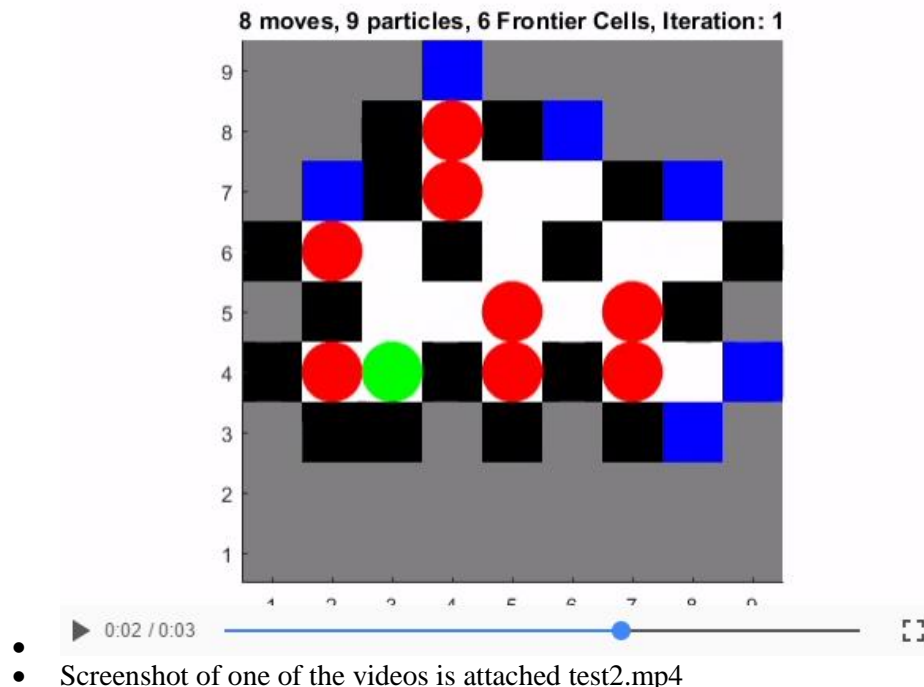
Weekly report

1. **My *Goals* from last week**
   - Think/Code an algorithm for traversing H-trees with current MATLAB code
   - Create new platform on ROS/C++ for adapting current MATLAB code
2. **My *Accomplishments* this week**
   a. Project 1: Particle Mapping
      - https://github.com/danielbao/IROS2017mappingParticles
      - 6 Videos were made with different runs of the particles to show jump_elect switching leaders, they are very fast sadly

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      - Screenshot of one of the videos is attached test2.mp4

3. **My *Goals* for next week**
   - Continue/start on the application for particles based on the micros_swarm_framework ROS package
   - Continue looking into H-tree solutions
     a. Meeting with Dr. Becker on Sometime before the weekend begins
4. **What I need Dr. Becker to do:**
   a. Meet with me
   b. Look at the other objectives on our summer to-do list; pasted on the next page
   c. Discuss the hardware implementation mentioned in a previous e-mail

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1. Magnetic Demonstration
   a. Large paramagnetic particle
   b. Dallas trip to lab where they make the particles
2. New platform
   a. Dynamics
   b. Irregular obstacles
   c. Polyhedra
   d. Particle-particle interactions
3. Beyond greedy (look ahead)
   a. 2 steps, can we disperse
   b. Dispersion from external source
4. Box2D model on existing capillary model
   a. Gazebo
5. Occupancy Grid

Meeting 5/18/17
   New/better algo in heuristics with h tree
   Solve H tree!