What have I done the past week?

More detailed planned approach to project

* Specifically foremost research and development phase
* Began researching simulation - code bullet ex.
  + Experimenting with javascript graphics
  + Refamiliarizing myself with the language
* Laid out a few drawings/layouts of what I want the final product of the simulation phase to be. Both visually and results.
* More baseline calculations for viability (drone acceleration and reaction time)
* Constraints on movement. Is the quadcopter drone sufficient for this sort of movement?
* Build simple browser drone simulation with user control, scoring, etc.
  + Main aspects:
    - Score calculation
    - Ball intersection with drone
    - How the drone itself moves (perpendicular to propellor axis)

Next Steps:

Browser simulation

* Improve the scoring mechanism
  + Distance from obstacle
* Match size, gravity, speed calculations in program to simulate realistic values
* Smooth drone movement (turning)
* Build and train a (Q learning / reinforcement learning) model and test drone ability to avoid in 2d. Vary distance drone learns ball position/velocity to show performance. Limit movement operations/second to constrain drone to real life parameters.
* Potentially build a 3 dimensional version which represents our coordinate system more aptly.

“Paul Fodor8:34 PM

Command and Control Software for multiple UAV’s – This software will automatically schedule flight of one or more UAV’s to a target destination village. It will ensure no drones can collide with other air traffic, with each other, all drones avoid adverse weather, and that all cargo is properly loaded and delivered on time to a target destination. All statistics of each flight, the drones real-time vital stats, remote control override of a drone in flight, and overall system health will be clear”