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**
   * Setup the Magnetic platform for performing manipulation.
   * Move particles around.
   * Fabricate workspaces for moving particles around
2. **My *Accomplishments* this week**

* Magnetic platform made ready for testing.
* The Arduino code and MATLAB code for moving the particles around have been set up.
* We can now give command to the coils to generate pulsing movements to move particles.
* Test was performed on the paramagnetic particles.
  + The particles do not show expected movement.
  + They rotate and take curved trajectories and end up in the corners.
  + This could be because of the curved, non-flat profile of the plastic petri dish.
  + A video of the whole experiment is attached <https://drive.google.com/open?id=0BxdfmdmLImhFU0tnS1l0TTNlSW8>
  + Maybe the Z axis field strength has to be increased.
* We are fixing on ROS stage for the simulation.
  + The leaf map shows up beautifully in the program.
  + Particles can be globally commanded with arrow keys.
  + Collision detection works. Now we Daniel is working on optimizing the motion controls.
  + We will soon have an interesting platform to work with.

1. **My *Goals* for next week**

* Print/ etch a fine channel for the particles to move in.
* Move particles with acceptable level of control. It is not that great now.
* Introduce flow in the simulation environment.

1. **What I need Dr. Becker to do:**
   1. Update on PC order status.
   2. Give opinion on motion of the particles as seen in the video.
   3. Have a meeting on Wednesday or Thursday at your convenient time.