

Weekly report

1 *My Accomplishments this week*

- Open-loop control of EM system with Arduino
- IEEE 1394 now can provide real-time video for control
- Tested a magnetic ball within machine oil
- Tested steel balls and iron oxide, but magnetic fields are not powerful enough to move them
- Connected z and x axes to DC power supply with 30V and 3A input. The magnetic field in x axis is able to move steel balls. If iron oxide powder is floating in the fluid, it can be manipulated by the magnetic field.
- In experiments, the resistance of each coil is about 10 Ohm, so U-I relation is linear.
- More details are available in "timeline" document
https://docs.google.com/document/d/1DhvBMiaWoIwedYeeiF_WC4yBT6tN3jgArNQboucNOv/edit?usp=sharing