

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

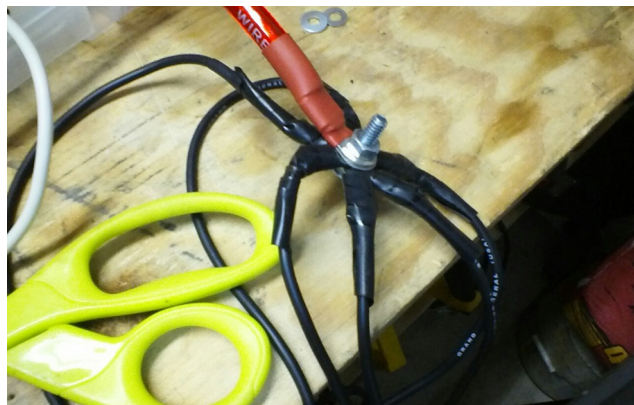
1. My Goals from last week

- **Deliverable 1:** Write Simulink Model and use it to track the sphere. - Complete
- **Deliverable 2:** Write MATLAB script to which tracks sphere and overlays position on raw video feed. - Complete

2. My Accomplishments this week

a. Project 1: Magnetic Coil Control for Mico robots

- **Deliverable 1:** Write MATLAB script to which tracks sphere and overlays position on raw video feed from camera. Video overlay works, Arduino subroutine is complete (untested) and controller subroutine is still a work in progress. Controller subroutine is a function and is a continuous PID controller.
- **Deliverable 2:** Install Camera lens stream video to MATLAB and Simulink – Complete.
- **Deliverable 3:** Build hardware connections for power supply to coils and controllers. See figures (photos) below.



• 3. My Goals for Next Week.

- Objective 1: Write MATLAB script which tests the video detection to command sequence for controller.
- Objective 2: Build frame and power supply for coils.
- Objective 3: Upload code to GitHub.

3. What I need Dr. Becker to do:

- a. Assist with debugging script as needed.
- b. Buy a deep cycle marine battery with a large reserved capacity. This is a better choice than an auto starting battery.