Date: 9/29/2014

Group Number and Name	**DEC14-08 / PUMA ROBOT**
Client/Advisor	**Dr. Greg R. Luecke**
Attendees/Role	**Alex Grieve / Leader** **Nhat Pham / Communication** **Matthew Bogenschultz / Webmaster** **Zeyu Zhang / Key-idea-keeper** **Seth Taylor / Power Circuits**

Past week accomplishments

What was done, who did it, and when it was done

A: Alex determined how to relate current to torque so that specific torque values can be applied to each PUMA arm joint.
B: Alex read papers suggested by Seth and found max current values and torque constants for each motor.
C: Matt, Alex, Seth, and Zeyu determined that the two channels on our power supply are not independent.
D: Nhat built an H-bridge on a breadboard so we can test it with our power supply.
E: Nhat started designing the central PCB in EAGLE.

Plan for coming week

What to do, who, and when should it be done

A: Alex will update the C code and add functions that allow specific torque values to be applied to each PUMA arm joint.

B: Seth will contact Mean Well and see if they can suggest power supply configuration for us.
C: Test the H-bridge circuit and see where the back EMF dissipates.

Pending Issues

A: We have determined that each motor needs its own power supply, but we don't know how to provide power to 7 power supplies from a wall outlet.
B: We are still waiting on a couple test PCBs we ordered two weeks ago.
C: We need to determine size/shape of the controller enclosure so that we can pick proper fans for cooling. Current draw should not be too big of an issue.

Individual hourly Contributions

NAME	Hours this week	HOURS Cumulative
Matt Bogenschultz	9	45
Nhat Pham	6	44
Alex Grieve	11	51
Zeyu Zhang	8	32
Seth Taylor	9	47

Comments and extended discussions:

Each motor will have its own power supply, effectively isolating each motor from the others. We need to determine how to power all of these power supplies off of a single AC wall outlet.

Turn around time on PCBs and other materials is quite long. This may end up preventing us from completing the project.