Date: 2/17/2014

Group Number and Name	**DEC14-08 / PUMA ROBOT**
Client/Advisor	**Dr. Greg R. Luecke**
Attendees/Role	**Nhat Pham / Communication** **Alex Grieve / Webmaster**

Past week accomplishments

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

A: Alex, Nhat, and Matt helped on the project plan. Alex edited and finalized the entire project plan and submitted it.
B: As a team we set up a weekly meeting schedule, so that we will have more contributions toward our project.
-Monday 4-6pm
-Tuesday 4-6pm(right after EE 491 class)
-Wednesday 4-6pm
-Sunday 5-7pm
C: Nhat did research on servo control, and H-bridge circuit. The H-bridge circuit that was provided by Dr Luecke seems to work fine, however, the servo control circuit does not work. The servo control circuit takes in a pulse width modulated signal, and by the width of the signal the servo control will output a DC voltage to a DC motor.
D: Alex and Nhat also assembled the robot back to original stage. The reason is we had an idea of replacing the DC motors with servo motors. However, from our research, it we discovered that a servo motor is just a DC motor with a servo control system built in.
E:
F:

Plan for coming week

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

A: Nhat and Alex will keep working on mapping the pins on the motor. This step is somewhat tedious and lengthy because there are more than 70 pins, and many combinations among the pins.
B: Nhat, Matt, and Zeyu will discuss more in detail about design strategies for the servo control.
C: Alex will spec an appropriate FPGA from Xilinx - will probably contact Xilinx directly to determine the best option.
D:

Pending Issues

A: When mapping the pins on the robot, we discovered that there are a few DC motors that require more than 40 voltage to operate. As of right now, we do not have the right tools and equipment to energize these motors.
B: Matt and Zeyu are not contributing much to the project.
C:

Individual Contributions

A: Alex finished the project plan.
B: Nhat verified some pins on the
C:

Individual hourly Contributions

NAME	Hours this week	HOURS Cumulative
Matthew Bogenschutz/ Leader	0	2
Nhat Pham / Communication	5	10
Alex Grieve / Webmaster	8	22
Zeyu Zhang / Key-Idea-holder	4	4.5

Comments and extended discussions:

We discussed an interface between the FPGA and the servo control circuit. The FPGA will output six individual pulse width modulation signals to the servo control circuit. We intend to use 20 millisecond frames, with a 1 ms pulse width corresponding to 0 degrees, 2 ms pulse width corresponding to 180 degrees, and a 3 ms pulse width corresponding to 360 degrees.