University of Washington
Computer Science and Engineering
Winter 2007

CSE 490 I: Design in Neurobotics
Class Project

Allocated Lab time:	2/13, 2/15, 2/20, 2/22, 2/27, 3/1 (three weeks worth of lab) And outside of your lab time (though TAs will not be physically available outside of the allocated lab time)
Demos:	3/6 Tuesday 11:30-1:20pm 3/8 Thursday 11:30pm-1:20pm
Project writeup Due:	3/14 Wednesday 10:30am electronically

Goals:

1. To produce the best mapping between the dataglove and the robot that executes a robotic task fastest.
2. To make sure that this mapping is easy to learn by others.

Project:

You have been exposed to different kind of mappings, and have decoded unknown mappings in the previous labs. This time, your job is to create your own program with your own mapping. You can learn from the codes used in the previous labs, or you can create your code from scratch.

You can have any kind of mapping, augmentations, tutorial training programs, etc. You could be fancy and have neural networks or use statistical methods. The final product has to be an executable that can work for anyone wearing the glove. You must submit this executable file electronically 24 hours before the demo.

A week before the demo day, we will announce the actual task that you will execute with the robot. Your team will be ranked by the speed of completion of the task.

On the second part of the demo, your executables will be used by other teams to see how easy it is to be learned. You are allowed to supply 10 words along with the program to make it easier for others to learn your mapping (you cannot combine multiple words into one that doesn't exist in a dictionary). You will be given multiple executables and your job would be to rank them in the order of easy usage for task execution.

The writeup should be no more than 1500 words with minimum of three MATLAB figures (you can work with your partner). This report should describe your mapping, other techniques used to make it easy to use, and how/why you chose such techniques. You should also comment on the performance of your program relative to other teams and point out advantages and disadvantages of your technique.