

## **EE 492 WEEKLY REPORT 5**

**Date:9/19/2016 - 9/26/2016**

Group: **DEC1605**

Project title: **Kepros Physical Therapy & Performance, PC**

Client: Ted Kepros

General Advisor: Suresh Kothari

Technical Advisor: Jeremias Saucedo

Team Members/Roles:

Anthony Branson: Team Leader

Jiahui Quan : Team Webmaster

Samuel Eue : Key Concept Holder

Benjamin Engh : Team Communication Leader

### **Weekly Summary**

This week, we figured out how to use arduino to get some raw data from the device and we tried to figure out how to use eclipse to connect our device. We have run both EMG and gyroscopes and getting some real time data from those sensor.

### **Pending issues**

Trying to figure out the exact algorithm to determine the posture people stay in. For example, how can we can through data to determine whether it is a backward position or a forward position, and what is the angle of these postures regarding to the standard posture.

<Arduino.h> library is not working properly.

Still working on codes to make the device usable.

### **Plans to solve issues**

We are going to do several groups of data with only two gyroscopes. Doing the simulation of three simple posture that we need to detect, then get an expression of angles from data we measure. About the eclipse, we are trying to find some patches online to let it running properly.

### Individual contributions

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Ben	Software modification	4	66
Jiahui	Website maintenance Weekly reports Doing algorithm	4	62
Anthony	Meeting coordination and client/advisor communication	4	57
Samuel	Software/hardware modification	4	53

### Plan for coming week

- Continue to set up the eclipse plugin and figure out how to make eclipse work
- Research datasheet for sensors and I2C bus to make two sensors working on one bus
- Read through the previous team code to decide what is salvageable
- Prepare a formula document of Algorithm to determine human readable angles and EMG deliverable update