Memo

**To**: Dr. Luis Rodriguez

**From**: A.R.C. - Logan Beaver, Justin Campbell, Tyler Paddock, and Ron Shipman

**Date**: October 10, 2014

**Re**: A.R.C.’s Update for the Week 5

**Problem Statement:**

Milwaukee School of Engineering’s mechanical engineering students take controls classes in their senior year. Having an automated control system would be a beneficial tool to explore controls theory. An application of Automatic Control Systems is the use and development of robotics. Development of a robot with pneumatic locomotion for the Milwaukee School of Engineering’s controls classes would give students a first-hand experience with complex control systems.

**Last Week’s Goals:**

* Research regarding communication protocol
* Create variable leg model in MATLAB
* Microcontroller proposal for legged robot control system
* Prepare talking points for Plexus
* Review homogeneous transformations
* Draw circle in MATLAB using 2 link arm and inverse kinematics
* Start compiling report background information from research

**Accomplishments:**

* Developed script that draws a circle in MATLAB using a two-link arm using inverse kinematics

**Goals for this Week:**

* Continue feasibility study
* Compile report background information from research
* Complete Project Plan and turn in to Dr. Mahinfalah
* Undergo initial interview with Plexus discussing project
* Begin report drafting
* Update Gantt chart with remaining deadlines

**Project Difficulties:**

* Project is currently self-funded

**Activities:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Person** | **Task** | **Time [Hours]** | **Total Man-Hours** |
| 10/9/14 | Team | Team Meeting | 1 | 27 |
| 10/10/14 | Team | Team Meeting | 1 |
| 10/3/14 – 10/9/14 | Team | MATLAB Circle Drawing | 1 |
| 10/3/14 – 10/9/14 | Tyler | Microcontroller research | 3 |
| 10/3/14 – 10/9/14 | Team | Homogenous Trans. Reading | 1 |
| 10/3/14 – 10/9/14 | Team | Talking Points for Plexus | 2 |