Laboratory 1: Rigid Body Kinematics – Instructions for Report
September 11/12, 2002
BIOEN 5201 – Introduction to Biomechanics
Instructor: Jeff Weiss
TA: Carlos Bonifasi-Lista

Each student must turn in a separate laboratory report representing his or her own work. The report should be prepared using MSWord or equivalent. The department has asked me to include grading of the grammar and style of your written report as part of the means of evaluation, so please proof your report, rewrite the initial draft as necessary and check for spelling and other grammatical errors before submission. The report should contain the following sections:

Title/Name:
Your report must include the following information in the upper-left corner of the first page:

BIOEN 5201 - Laboratory 1: Rigid Body Kinematics
<YOUR NAME HERE>
<DATE HERE>

Objective:
State the purpose of the lab measurements and analysis. Motivate the need for the measurements. State your perception of the intended educational goals of the laboratory in terms of learning new measurement and analysis techniques. This section should be one paragraph.

Methods:
Describe the methods used to perform the experimental measurements.
Use of DMAS system to track 3D marker coordinates
Use of Polhemus digitizer to measure 3D coordinates statically
Describe the methods used to analyze the data
Show equations used in development of your program
Describe the particular software or programming language you used
Include an outline of the program flow of your program
Describe any subroutines and reference them by name
This section should be no longer than 2 pages.

Results:
Make plots of the Grood-Suntay angles (3) and translations versus test time for each of the two tests that you performed. Put all three of the angle graphs on one page, top-to-bottom, and make sure that the x- and y-axis ranges on the graphs are the same. Do the same for the translations.
Interpret your results. Are they what you expected? Why or why not?
This section should be no longer than 3 pages (including the 2 pages of graphs).

Appendix:
Include the source code for your program as an appendix to the report.