Lab 8 (Linear Quadratic Regular/Feedback Control – Flexible Joint):

Pre-Lab: Read section 3.1 and 3.2 of the Flexible Link Workbook and answer the questions in section 3.3 before coming to the lab.

Lab Experiment:

1. Connect the Flexible Link to the SRV02 as shown in the FLEXGAGE User Manual located in C:\User\Student\Matlab\FLEXGAGE\References
2. Connect the SRV02, VoltPaq, and Q2_USB data acquisition board with the following changes.
    a. Do not connect the Tach terminal to the S1&S2 terminal on the SRV02
    b. Connect the red RCA connector to analog input #1 instead of the white one.
    c. Connect the strain gage terminal on the Flexible Link to the S3 terminal of the amplifier
3. Read and implement the Control Simulation experiment in section 3.4.1 of the workbook.
    a. Load the data from the previous lab beforehand.
4. Run the experimental setup in section 4.5 of the workbook.
5. Read and implement the Control Implementation experiment in section 3.4.2 and the Partial Feedback Control experiment in section 3.4.3 of the workbook.
6. Questions posed in the lab are to be answered in the lab report.

Post-Lab: Write a lab report detailing the procedure and results of the experiments run. Guidelines for writing the lab report can be found in section 5 of the Flexible Link Workbook.