SWEN 563 Real-Time and Embedded Systems

Project 6 Demo Review

Team members: _____

Section Number: _____

Required Feature Checklist (do this in order starting with 1.):

_____ 1. Verify square wave operation at 5 volts peak output at 0.5 Hz from the signal generator. Observe that the servo moves to near the left and right extremes of its range of motion.

_____ 2. Switch from square wave to triangle wave at the same 5 volts, 0.5 Hz. Observe that the servo promptly turns around when reaching the maximum left and right positions.

_____ 3. Switch from triangle wave to sine wave at the same 5 volts, 0.5 Hz. Observe that the servo slowly turns around when reaching the maximum left and right positions.

_____ 4. Reduce the voltage to 2 volts peak. Observe that the range of motion is proportionately reduced. It is acceptable if the movement is now fairly jumpy since for the required version only 16 steps are required from -5 volts to +5 volts.

Bonus (if applicable) – Rate the quality for both voltage below on a scale from 1 to 5 with 1 being poor (no bonus credit) and 5 being very smooth with no observable jumpiness.

_____ 5. Set the peak voltage to a 1 volt peak sine wave. Observe very smooth operation of the sine wave with no observable jumpiness. The movement at each extreme should be slow. The rate of movement when crossing the center should be observably faster than the movement at the peaks.

_____ 6. Set the peak voltage to a 5 volt peak sine wave. Observe very smooth operation of the sine wave with no observable jumpiness. The movement at each extreme should be slow. The rate of movement when crossing the center should be observably faster than the movement at the peaks.

Concerns if any: _____

Reviewed by: _____

Date/Time: _____