

Learn Position

Associated QuickControl program – Learn Position.qcp

Overview

The goal of Learn Position is to remember a specified position and later recall the position for motion.

This application note only records a single position. For continuous recording, see application note QCI-AN042 - Record and Playback Register Files.

Learn Position.qcp

It is assumed the SilverLode servo is attached to a QuickSilver Training Breakout (QCI-BO-T). Training Breakouts ground I/O #1, #3 and #5 through switches (closed switch = Low input). I/O #2 is wired to a LED (I/O #2 Low = LED on).

Init – Program

When Learn Position.qcp is run, the Init program reads I/O #1. If I/O #1 is LOW, the Learn program is run, otherwise the Main program is run. See comments in program for more details.

Learn – Program

Motor torque (TQL) is zeroed so the user can manually move the motor. Once at the desired location, record it by switching I/O #5 low.

The program provides an indicator LED (I/O #2) that signifies the state of the program. When the LED is on, the program is in learn mode. The LED goes once when the position is recorded.

NOTE: The position is recorded to non-volatile memory using a Register File (see Register File System in SilverLode User Manual for more details.)

Main – Program

Main first loads the "Learned" position from non-volatile memory and then goes to either location 0 or to the Learned position depending on the state of I/O #3.

More information on using any of the commands discussed here can be found in the SilverLode servo user manual or command reference. Both can be obtained from QuickSilver's website at www.QuickSilverControls.com under Support - Manuals.