

## 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 Posiiton.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](http://www.QuickSilverControls.com) under Support - Manuals.