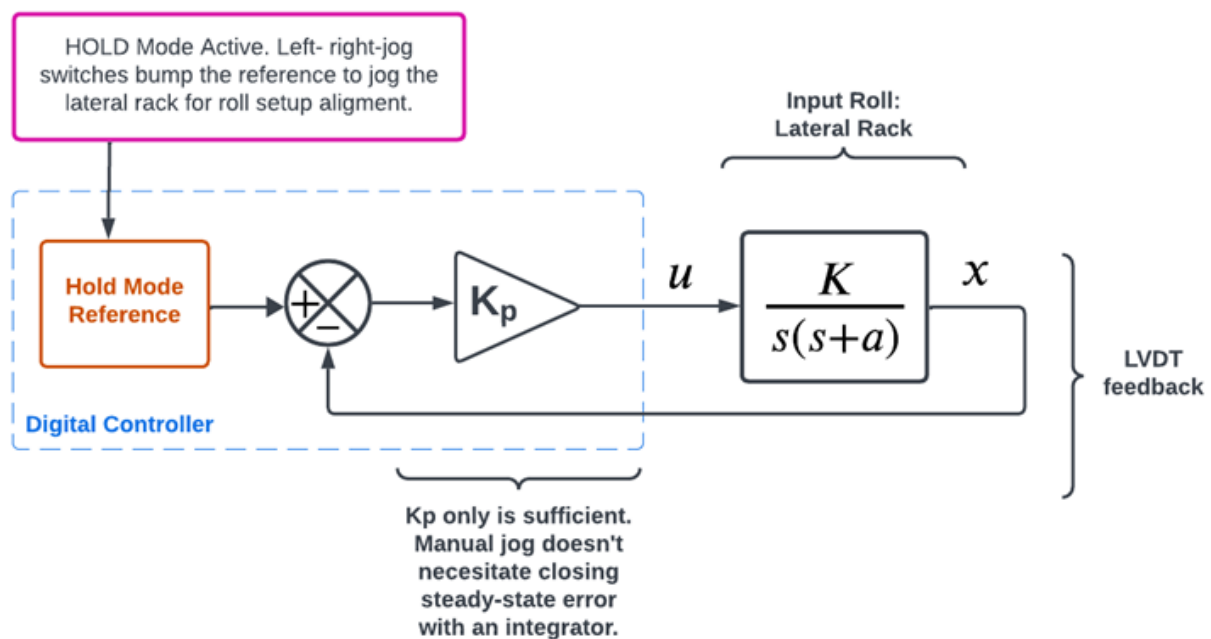


Step 6: Hold-Jog Mode For Setup & Reload

During slow-speed setup or when an input roll is near empty a, "hold" switch is asserted on a tethered pendant. This puts the control system in an LVDT-only feedback mode with the reference position as the LVDT position at the time of hold-mode entry. While in hold mode, left- and right-pushbutton switches jog the reference to assist in manual alignment for job setup.

Hold-Jog mode regulates to the hold reference position regardless of roll speed. When hold-mode is exited while below the minimum operating mode speed, the system remains stationary according to the minimum speed, as described for run mode. As a production operation speeds the web above ~ 0.35 m/s (70 fpm) the edge control mode activates and the system again regulates to the edge sensor null point.



Hold-Jog Mode Closed-Loop

Design Selection and Prototyping Complete!

The run and hold-jog mode design candidates were first implemented in C-code on the laptop with the USB analog input-output module used for initial system identification. With promising prototype performance indicated the effort moves to production form factor implementation.

Next up: Production Controller Hardware and Programming