

0.1

The system will become unstable when a delay of 0.4 seconds is used. The settling time for 0.39 is quite long but the system does stabilize. Figure 1 shows different time delay settings in Simulink. It clearly shows that a delay of 0.3 seconds still makes the system stabilize quickly while a delay of 0.4 makes it unstable.

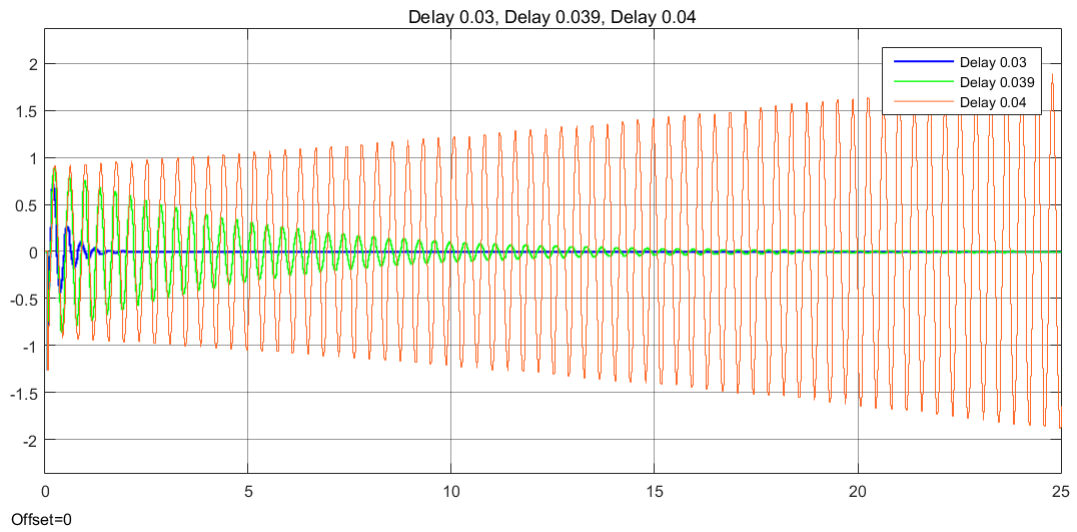


Figure 1: Control signal for different delay settings