

1. What gain parameters did you end up using for your PI controller? • Describe the response of the system to speed changes.

We chose a gain of 2:1 for the encoder counts and rpms. We chose a  $k_i$  of 1 and a  $k_p$  of 120. This resulted in good performance at around a speed of 50. Implementing a derivative would certainly help but overall performance was satisfactory.