**Postlab 07 (PID Motor Controller)**

1. What gain parameters did you end up using for your PI controller?

The gain parameters that were used was the 2:1 ratio for the encoder count, the RPM is 0.5 encoder count, and the interrupt period is 37.5 ms (for 37500 timer ticks).

* Describe the response of the system to speed changes.

The ARR is 18750, which is obtained from (timer ticks)/2.

The response of the system to speed changes is that it gradually increases speed until it gets to the target RPM. Depending on the Kp and Ki the oscillations will be strong or weak. By using a derivative to control the oscillations the PID motor controller will make the accuracy better.