

## Lab 5

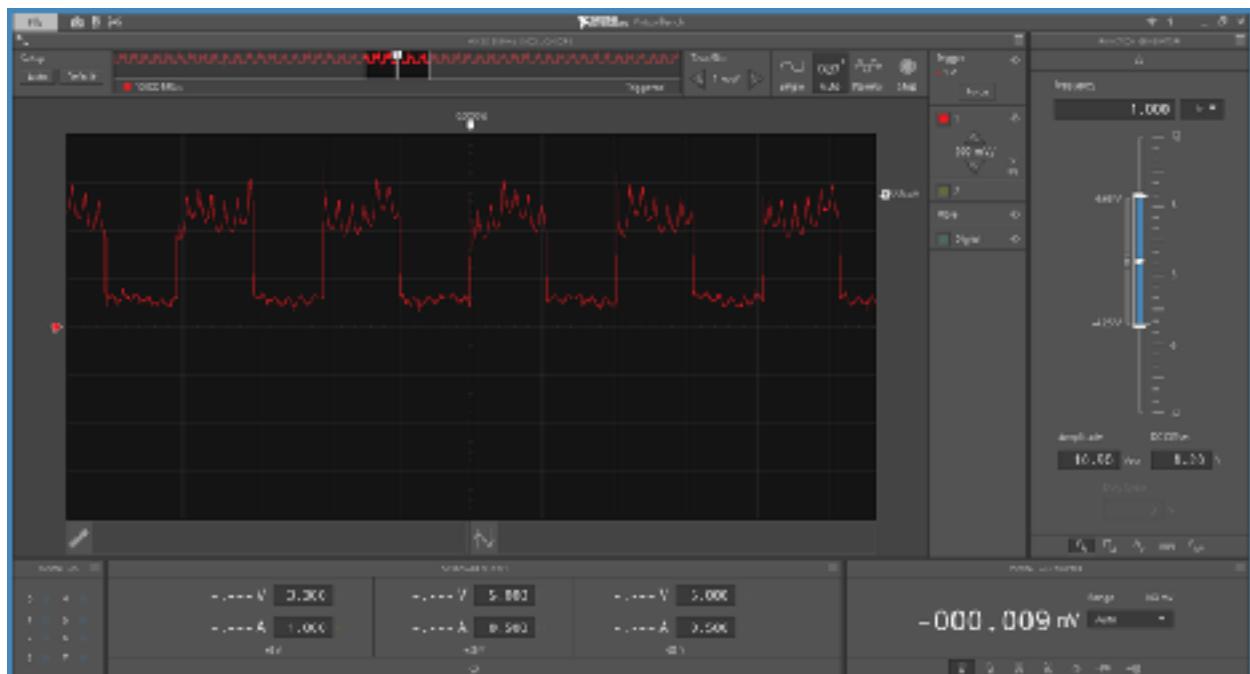
1.

What is the voltage at **FLYBACK** while the motor is running without the flyback diode? with the diode? Include screen captures of the measurements.

With diode:



Without diode:



2. What is the minimum voltage you observe on **vcc** while the motor is running without the decoupling cap? With the cap? Include screen captures of the measurements.

With cap:

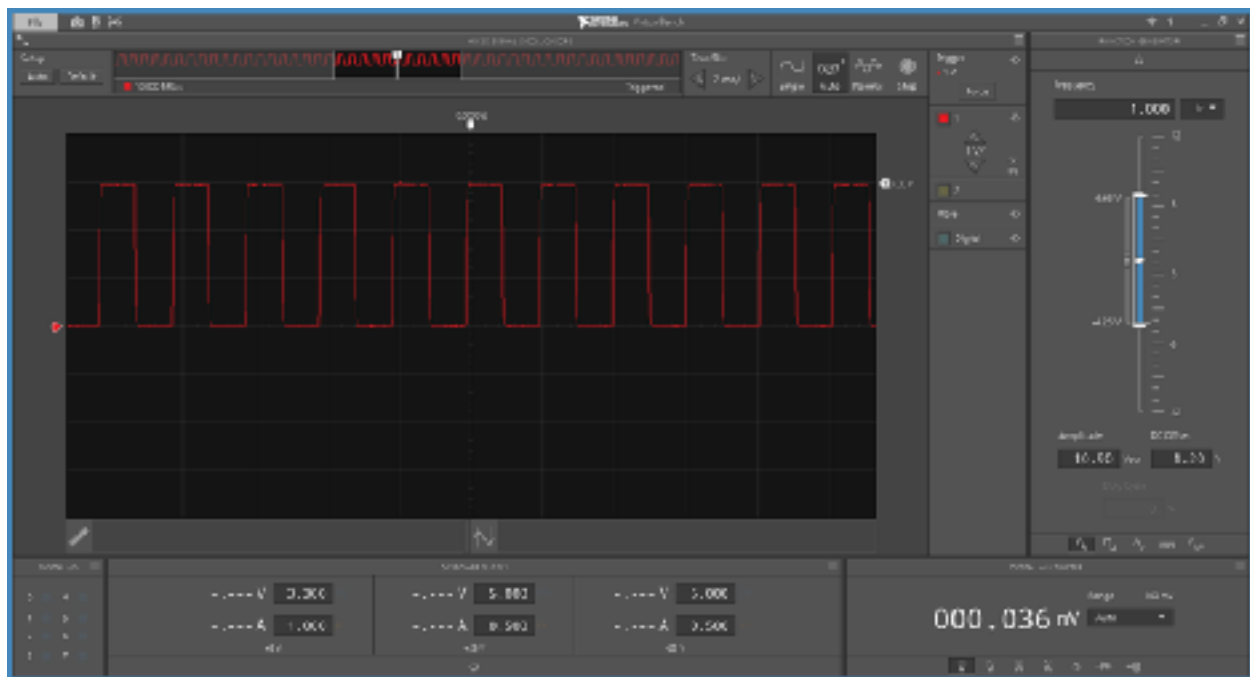


Without cap:

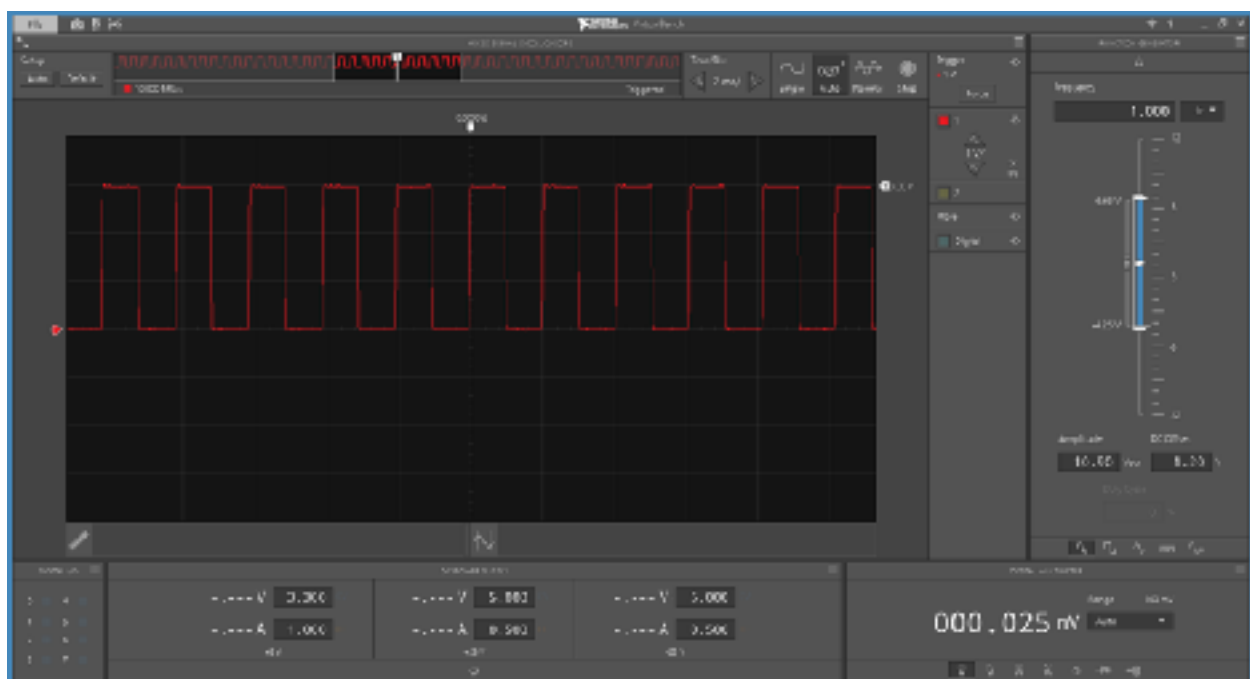


3. What effect does the filter (C1 and R1) have on the PWM input to the controller (i.e., how is the signal at **PWM** different than the signal at **FILTERED**)? Include screen captures of each.

With filter:



Without Filter:



4. What effect does the filter have on the voltage range on FLYBACK?  
It will make the range of Flyback smaller and thus stabilize Flyback