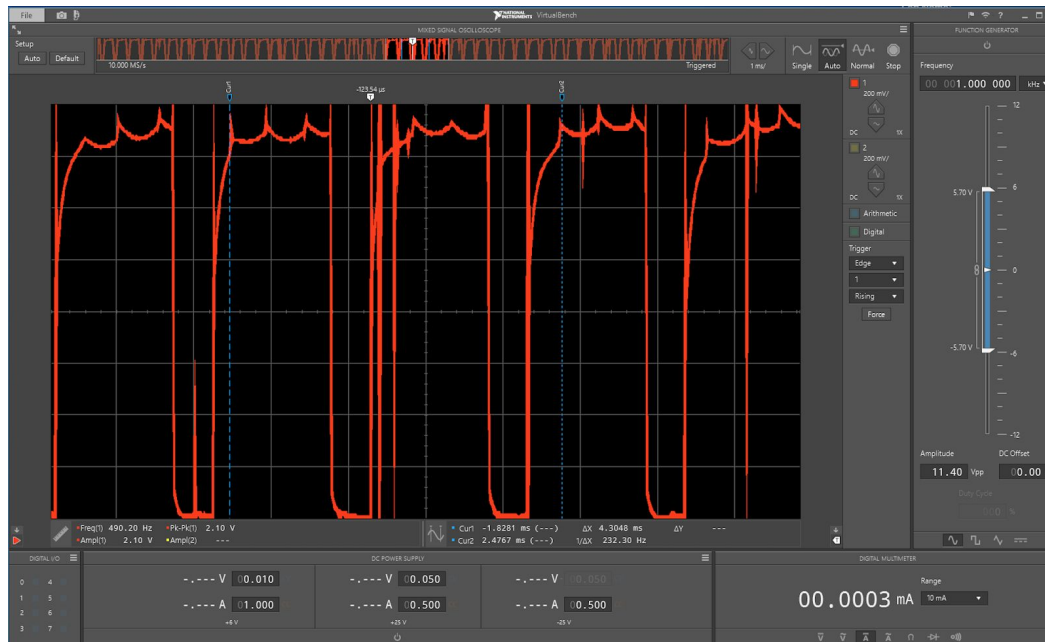
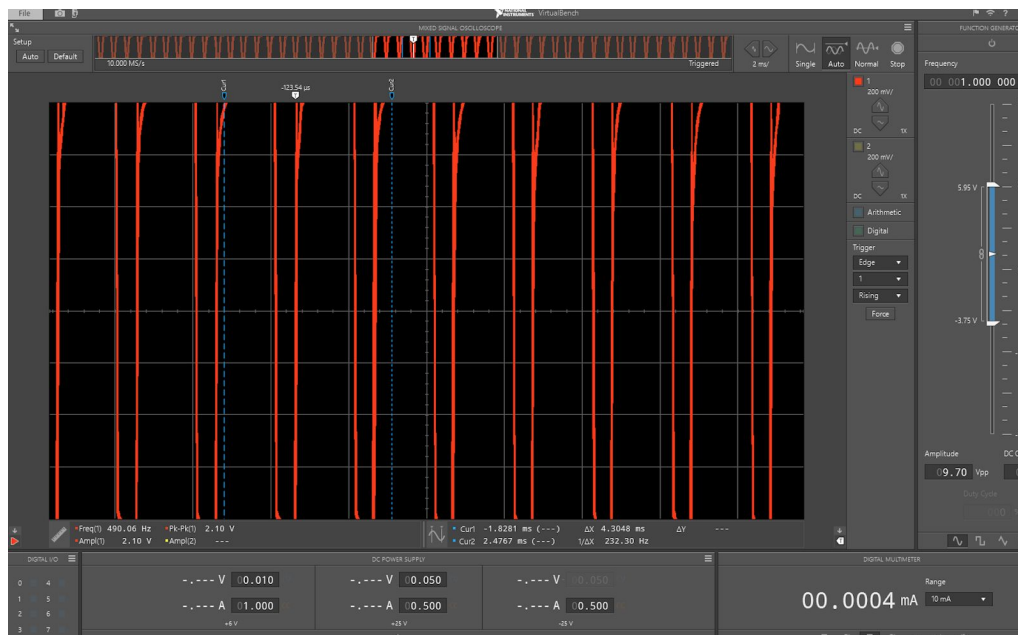


1. What is the voltage at FLYBACK while the motor is running without the flyback diode? with the diode? Include screen captures of the measurements.

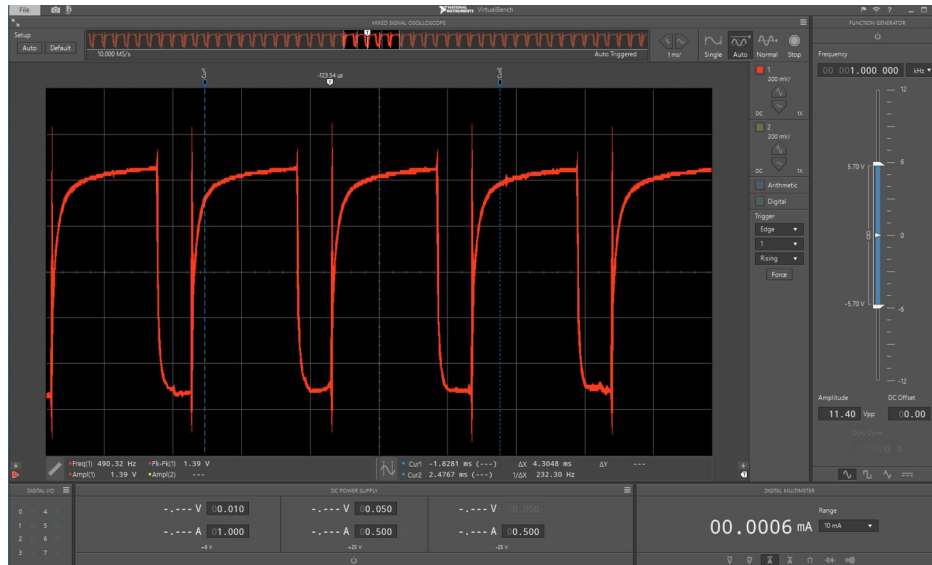
The voltage at flyback with the flyback diode is 11.4 Volts.



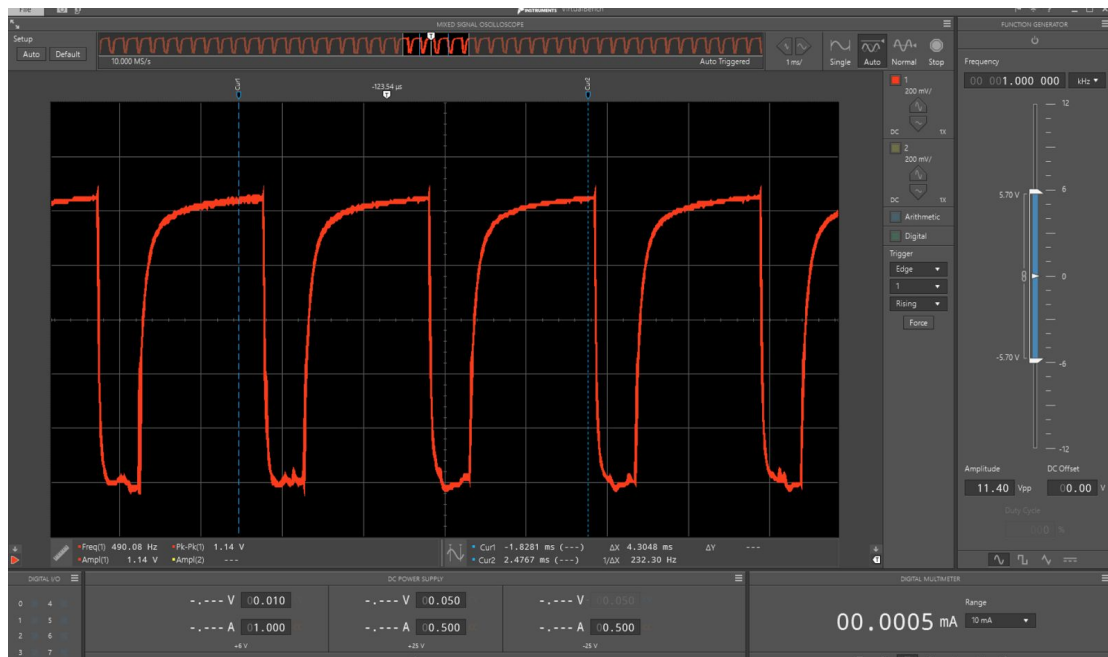
The voltage at flyback without the flyback diode is 9.7 Volts



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.



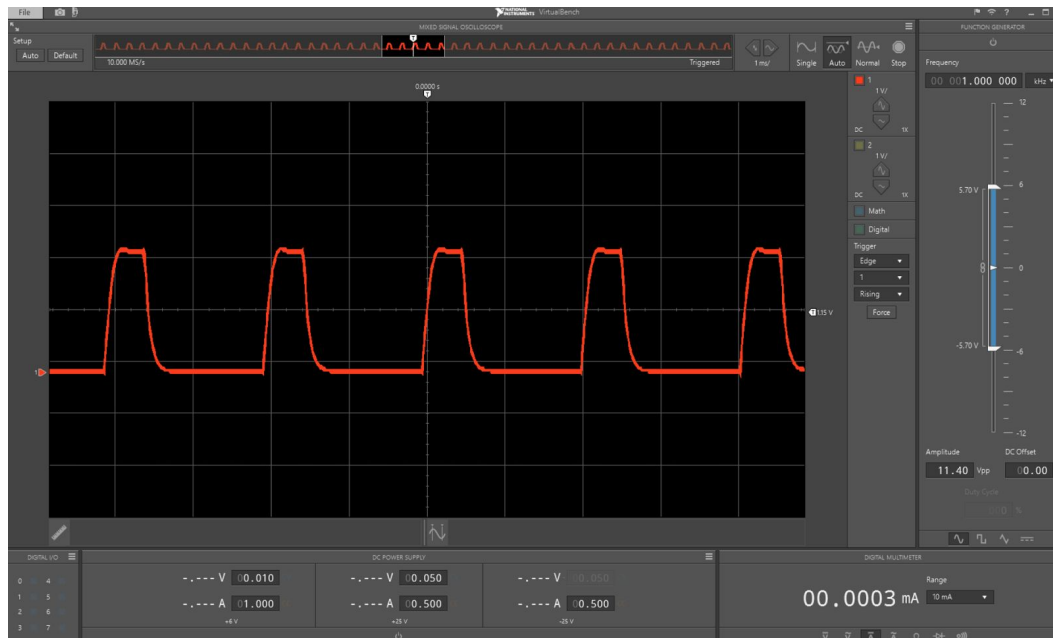
Without the decoupling cap we observe a peak voltage of 1.39 volts. With the decoupling cap we observed a peak voltage of 1.14 volts.



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.

At PWM the voltage has a more gradual cycle than the signal at **FILTERED** which is much a much higher slope.

(At PWM)



(At FILTERED)

