Capacitor
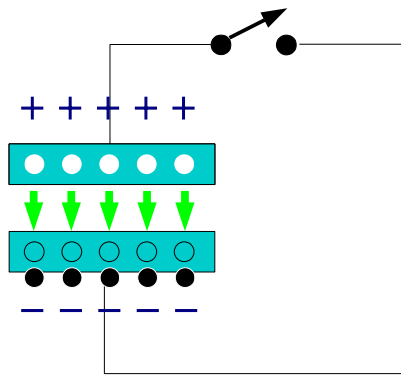
Young Won Lim
10/03/2011

Please send corrections (or suggestions) to youngwlim@hotmail.com.

This document was produced by using OpenOffice and Octave.
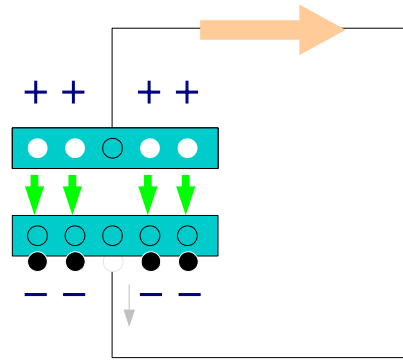
Charge

Before
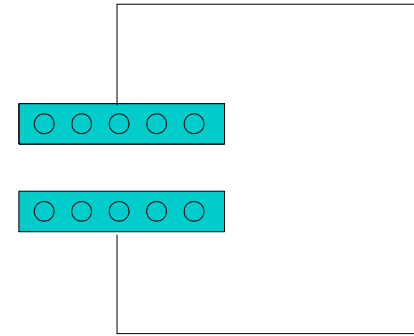
Initial

Final

No more electrons to leave

+ + + + +

− − − − −

crowded electrons prevent
other electrons from arriving

Energy stored in Electric Field
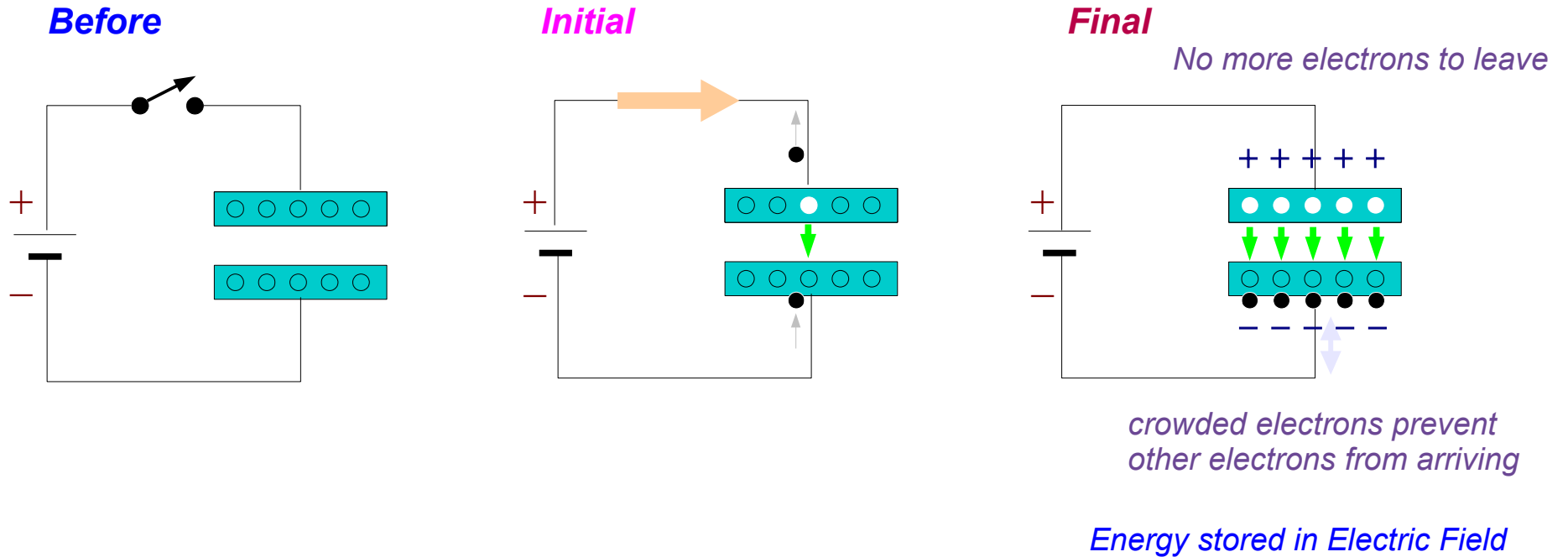
Discharge

Initial

Final

No more electrons moving

Charge

$$v \qquad = \qquad v_R \qquad + \qquad v_C$$

$$i \qquad = \qquad i_R \qquad = \qquad i_C$$

Discharge

$$v \qquad = \qquad v_R \qquad + \qquad v_C$$

$$i \qquad = \qquad i_R \qquad = \qquad i_C$$

Pulse

$$v \quad = \quad v_R \quad + \quad v_C$$

$$i \quad = \quad i_R \quad = \quad i_C$$
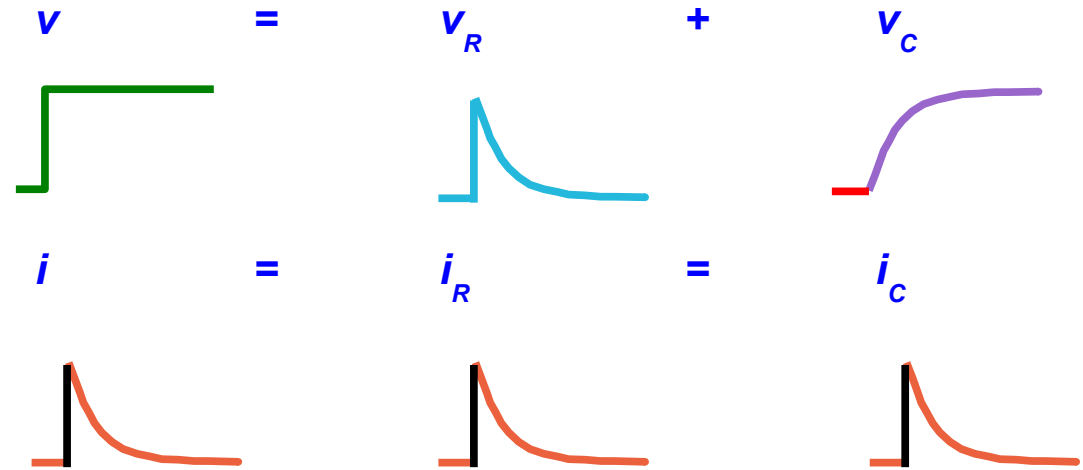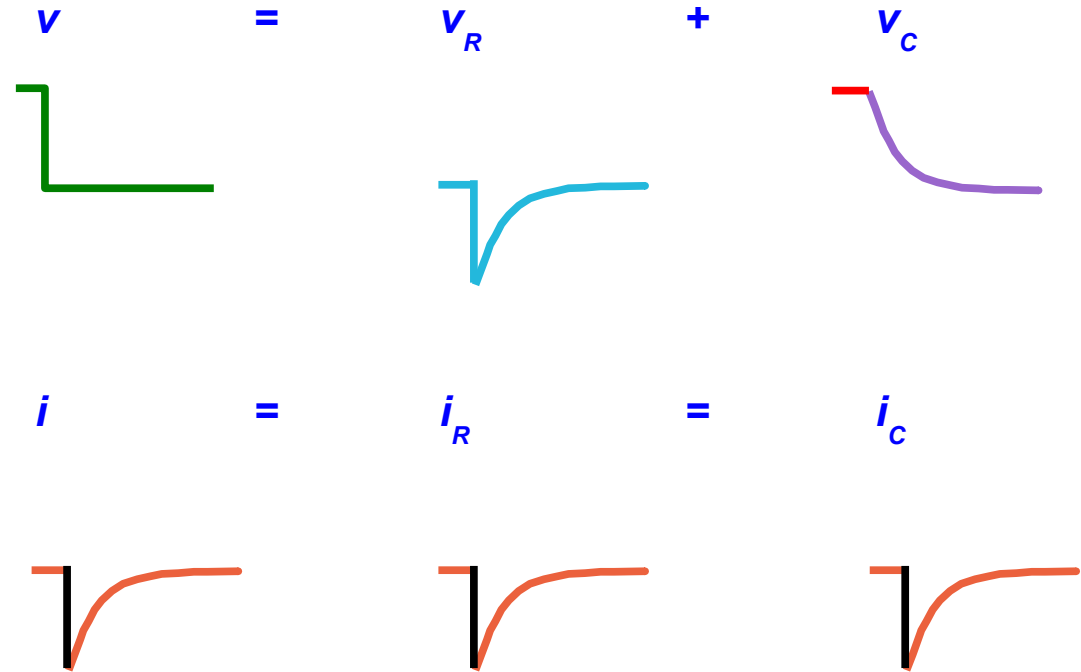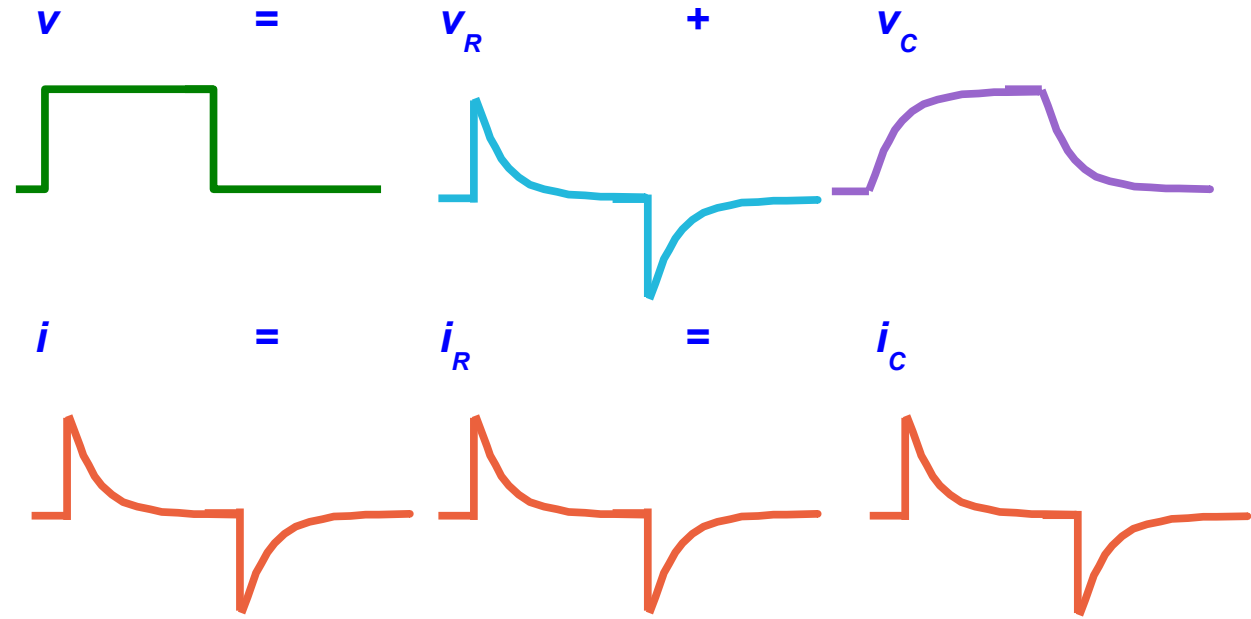
Phase Lags and Leads

References

[1] http://en.wikipedia.org/
[2] J.H. McClellan, et al., Signal Processing First, Pearson Prentice Hall, 2003