

INTRODUCTION TO CIRCUITS, BIOELECTRICITY, AND DC INSTRUMENTS*

OpenStax College

This work is produced by OpenStax-CNX and licensed under the
Creative Commons Attribution License 3.0[†]



Figure 1: The complexity of the electric circuits in a computer is surpassed by those in the human brain. (credit: Airman 1st Class Mike Meares, United States Air Force)

Electric circuits are commonplace. Some are simple, such as those in flashlights. Others, such as those used in supercomputers, are extremely complex.

*Version 1.2: Jun 1, 2012 12:11 pm -0500

[†]<http://creativecommons.org/licenses/by/3.0/>

This collection of modules takes the topic of electric circuits a step beyond simple circuits. When the circuit is purely resistive, everything in this module applies to both DC and AC. Matters become more complex when capacitance is involved. We do consider what happens when capacitors are connected to DC voltage sources, but the interaction of capacitors and other nonresistive devices with AC is left for a later chapter. Finally, a number of important DC instruments, such as meters that measure voltage and current, are covered in this chapter.