

CHAPTER OVERVIEW

6: Direct-Current Circuits

In the preceding few chapters, we discussed electric components, including capacitors, resistors, and diodes. In this chapter, we use these electric components in circuits. A circuit is a collection of electrical components connected to accomplish a specific task. The second section of this chapter covers the analysis of series and parallel circuits that consist of resistors. Later in this chapter, we introduce the basic equations and techniques to analyze any circuit, including those that are not reducible through simplifying parallel and series elements. But first, we need to understand how to power a circuit.

[6.1: Prelude to Direct-Current Circuits](#)

[6.2: Electromotive Force](#)

[6.2.1: Electromotive Force and Internal Resistance](#)

[6.3: Resistors in Series and Parallel](#)

[6.4: Kirchhoff's Rules](#)

[6.5: Capacitors in Series and in Parallel](#)

[6.6: RC Circuits](#)

[6.7: Direct-Current Circuits \(Exercise\)](#)

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