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**Breadboard Power Supply**

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Chapter One

Introduction

The electronic circuit design process involves defining the problem, determining a solution, circuit calculations & developing a schematic, ordering the needed circuit components, prototyping and circuit testing (often referred to as breadboarding), PCB or printed circuit board development, PCB assembly, and final testing. Typically, the breadboarding stage is done using a bench top or laboratory DC power supply. Once the breadboarding phase is complete and the circuit is functionally operational, we will need to replace the laboratory DC power supply with a dedicated power source. A power source may be a simple as a 9V battery or may include purchasing a dedicated high-power rack mount Power Supply. Often times we can design our own power supplies using basic components rather than buying off the shelf units

While the power supply may not be the most exciting aspect of your electronic projects it is a crucial and foundational component. Poor power supply design can lead to circuit development and testing frustration, intermittent circuit problems, and premature circuit failures. Understanding how power supplies function will make you a better electronic troubleshooter. The Breadboard Power Supply project will provide a safe introduction to world of linear regulated power supplies and the electronic circuit design process.