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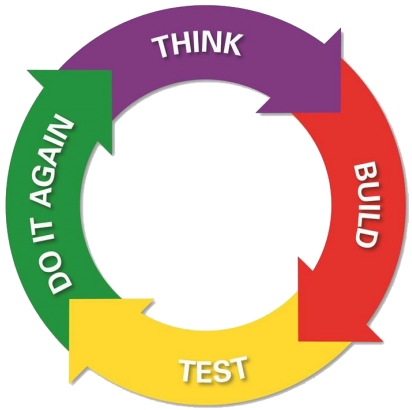
## Engineering Design Process

### Think, Build, Test, Do It Again

That's the process engineers use when they tackle a problem. Engineers don't have official rules telling them to follow this set of steps. But, over time they've learned that **they get the best results this way**.




They **think** and brainstorm about a problem and factors they have to consider to solve it. They come up with an idea and **build** a prototype. They **test** the prototype. And, then they **repeat** the process to improve their results.

### It Takes a Lot of Back and Forth

Engineers often **move back and forth within the loop**, repeating two steps over and over again before moving forward. It's a key to engineering success. Sometimes, engineers will focus on one specific step, and when complete, pass the project off to another team with a different skill set.

### Engineers are creative problem solvers!

This kit generously sponsored by:

Ready Set Create! Design Challenges for Kids

NSF

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J-KIT STEM

# Circuits 3

| | |
|---|---|
| **Scientific Concept:** | Energy, circuits |
| **Recommended Ages:** | 8 to 12 |
| **Scientific Practice:** | Engineering design |

## What to know about this kit:

Develop logical reasoning and planning skills as you learn to build circuits to complete challenges ranging from beginner to expert.

*Please note: This kit must be returned to a **staff member** at an **Anchorage Public Library** location.*

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| Kit Contents & Replacement Costs | | |
|---|---|---|
| **Item Type** | **Description** | **Cost** |
| Object | Circuit Maze Game | $30 |
| Book | *Electricity (Building Blocks of Science)* | $15 |
| Book | *Electrical Engineering and the Science of Circuits* | $12 |
| | Packaging & Processing Fee: | $25 |
| | **Total Kit Replacement Cost:** | $82 |


**Please verify all parts are present before returning.**