## 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.
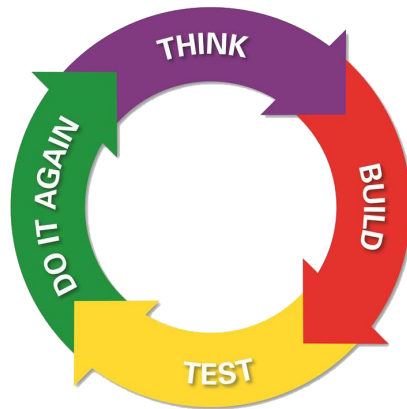
It Takes a Lot of Back and Forth

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:

Coding 1:
Robot Mouse

Scientific Concept: Computer Coding

Recommended Ages: 4 to 7

Scientific Practice: Computational thinking

What to know about this kit:

Coding can be as simple as programming a microwave to heat food or putting instructions in the proper order. An early introduction to the basic programming concepts can help children build problem solving and critical thinking skills. Here they can use logic to design a code, test it out, tweak their code, and try again! All without ever touching a computer.

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

ANCHORAGE PUBLIC LIBRARY

Kit Contents & Replacement Costs

Item Type	Description	Cost
Object	Learning Resources Code & Go Robot Mouse (83 piece set)	$60
Leaflet	Code & Go Robot Mouse Activity Guide	n/a
Book	*The Story of Coding*	$15
Book	*How To Code A Sandcastle*	$35
Packaging & Processing Fee:		$25
Total Kit Replacement Cost:		$120

Item	Description	Quantity
Robot Mouse	Blue	1
Maze grids	Green squares	16
Maze walls	Purple rectangles	22
Tunnels	Orange semicircles	3
Cheese wedge	Yellow	1
Coding Cards	Double sided small green square cards	30
Activity Cards	Double-sided white with pictures of mazes	10

Please verify all parts are present before returning.