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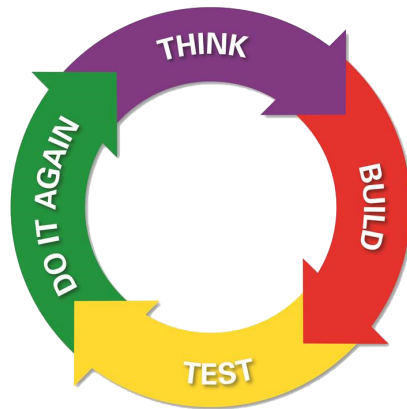


## Engineering Design Process

### 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!

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## J-KIT STEM

# Coding 3: Ozobot Bit Robots

Scientific Concept: Computer Coding

Recommended Ages: 8 to 12

Scientific Practice: Computational thinking

## What to know about this kit:

Ozobot bits are small ball-like robots you can program by drawing codes on black track mazes. You can make them go faster, slower, turn, dance, and light up. We include two ozobots so you can draw separate maps and watch them race.

If you want to pair it with a smart device, you can use blocky to write computer code with simple instructions to take full control of the Ozobots.

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



## Kit Contents & Replacement Costs

Item Type	Description	Cost
Object	Ozobot bit (2 pack)	\$100
Object	Ozobot markers (4 pack)	\$10
Book	<i>Get Coding</i>	\$13
Book	<i>Coding Games in Scratch</i>	\$20
Packaging & Processing Fee:		\$25
Total Kit Replacement Cost:		\$142

Please return the pre-printed mazes, but you may keep your own mazes!

Please verify all parts are present before returning.



Item	Description	Quantity
Ozobot bit	Black	1
Ozobot bit	White	1
Ozobot carrying pod	Clear or black plastic	2
Ozobot charging usb cords	White and gray	2
Ozobot skins	(white, black, blue yellow)	4
Ozobot bit quick start guide	Leaflet	1
Ozobot mazes	White with black tracks	4+