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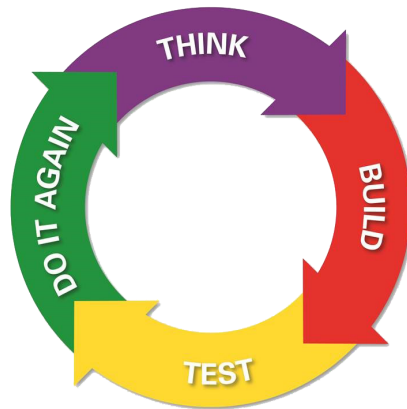
Robotic Arms

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:



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Scientific Concept: Physics, force

Recommended Ages: 8 to 12

Scientific Practice: Engineering

What to know about this kit:

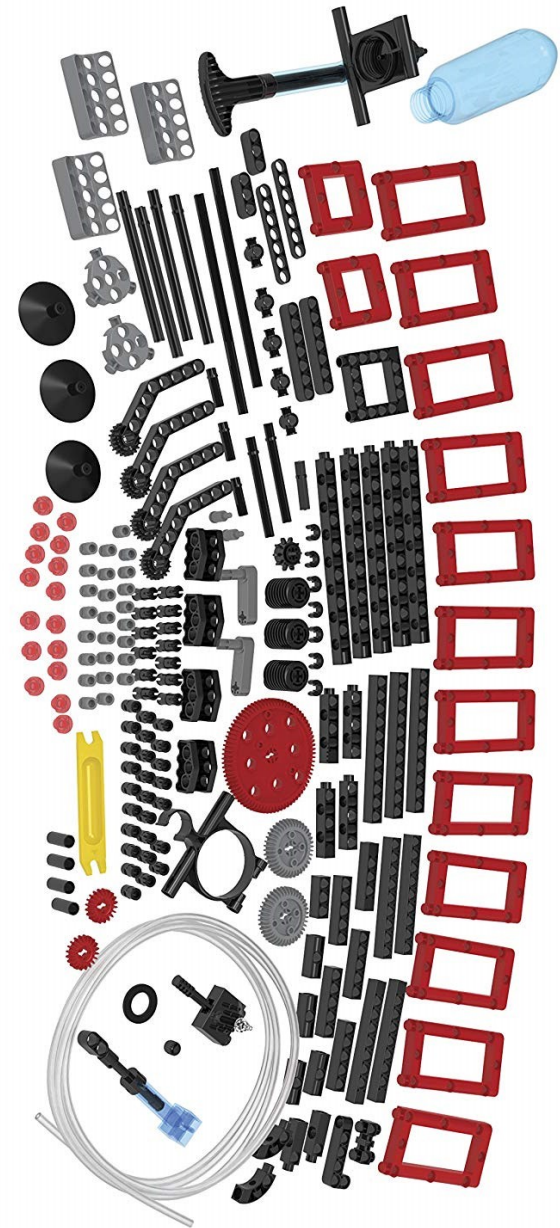
Learn how robotic arms work by building six different models that use a pneumatic system and air pressure to power the arms around. Perform experiments to see how well your mechanical engineering works!

*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	Thames & Kosmos Mechanical Engineering Robotic Arms (204 pieces)	\$50
Leaflet	Mechanical Engineering Robotic Arms Experiment Manual	n/a
Book	<i>Everything Robotics</i> (National Geographic)	\$13
Book	<i>Robotics Engineering: Learn It, Try It!</i>	\$10
Packaging & Processing Fee:		\$25
Total Kit Replacement Cost:		\$98



Please verify all parts are present before returning.