Did you enjoy this kit? We’d love to see how you used it! Tag us on social media and let us know! #APLstem
Twitter: @anchlibrary
Facebook & Instagram: @anchoragelibrary

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:

This material is based upon work supported by the National Science Foundation under Grant Number DRL-1657593. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

J-KIT STEM

Coding for Preschoolers

Scientific Concept: Computer Coding

Recommended Ages: 3 to 6

Scientific Practice: Computational thinking

What to know about this kit:

Practice the beginning blocks of coding with this Code-a-pillar. Kids will get practice with sequencing and planning as they learn how to control the direction the robot moves. Those ready for an added challenge can attempt to direct the Code-a-pillar to finish at a designated spot.

Please note: This kit must be returned to a staff member at an Anchorage Public Library location.
# Kit Contents & Replacement Costs

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object</td>
<td>Code-a-pillar (8 pieces)</td>
<td>$85</td>
</tr>
<tr>
<td>Book</td>
<td><em>How to Code a Rollercoaster</em></td>
<td>$15</td>
</tr>
<tr>
<td>Book</td>
<td><em>Hello Ruby: Journey Inside the Computer</em></td>
<td>$11</td>
</tr>
<tr>
<td></td>
<td>Packaging &amp; Processing Fee:</td>
<td>$25</td>
</tr>
<tr>
<td><strong>Total Kit Replacement Cost:</strong></td>
<td></td>
<td>$136</td>
</tr>
</tbody>
</table>