### **Activity - Explore The Software Design Process**

**Description**

What is the Software Design Process?

Develop a clear enough understanding of the engineering design process to be able to explain your understanding to others.

Time To Complete: 1-3 Hours

Common Core Standards

* ELA.RST.1, 3, 4, 5, 7, 9

**I Can Statements**

* I will know my exploration of the software design process is of high quality when:
  + I can identify the stages and ideas that comprise the software design process, such as ideate and prototype.

**Suggestions for Assessing Student Readiness to Move Forward:**

* Confer with students to check their understanding of the elements of engineering design.
* Ask students to self-evaluate their work after completing one of the activities below.

#### **Paper Prototype**

A mini-lesson on the software design process, helping students understand each step.

While a specific approach is suggested in this performance task, there is not universal agreement about the elements of the engineering design process. Ask students to examine different versions of the process and identify strengths and weaknesses of each approach.

* Watch a video of the software design process in action and ask students to identify the steps the design team undertakes. This can be done before or after sharing the steps with them.
* Have students undertake a simple design challenge (such as building a tower of newspaper:<http://bit.ly/1yUR7b2>) and ask them to record their process as they complete the task. Ask groups to compare their processes and derive a consensus process.
* Have students set up software design notebooks. Begin by exploring the purposes and uses of the software design notebook. Have students brainstorm what should be included in an engineering design notebook and how it could be used during the process.
* <https://curriculum.code.org/csd-18/unit4/7/>
* <https://curriculum.code.org/csd-18/unit1/>