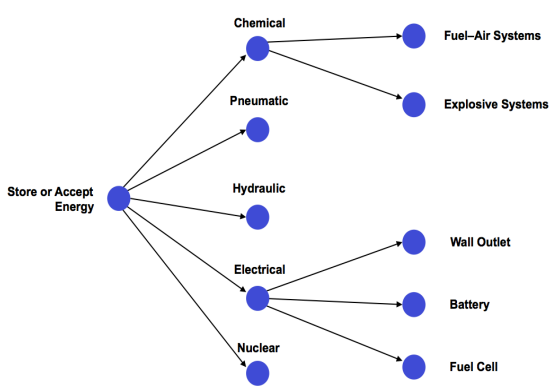
Design Project

Through the design learning process, I have mastered the skills in thinking, designing, and working like an engineer. I was first given a task to design a mug that can be helpful for those who have finger disabilities and then I was given the task to think of a way to help the company GE to fix their problems dealing with their current locomotives. In these two big projects, my group and I had to use the same

AHP and Classification Tree

One of the biggest concepts in learning how to think like a designer was to think of multiple ways to choose the appropriate solution. One of them being, knowing how to prioritize certain customer needs. One method of "ranking" which feature or customer needs are important, we would use the process called Analytical Hierarchy Process (AHP). (Shown to the right). Then, we would combine these features and would have to think of different combinations of solutions to. (shown below).

- Analytical Hierarchy Process(AHP)
  - Pair-wise Comparison
  - Rank from 1 -9

	Portable	User Friendly	Durable	Flexible	Total (*Ri*)	Weighting (*wi*)	
Portable	1	1/5 =0.2	1/3 = 0.33	1/3 = 0.33	1.86	0.083	1.86/22.38
User Friendly	5	1	1/.6= 1.66	1/.6= 1.66	9.32	0.416	9.32/22.38
Durable	3	0.6	1	1	5.6	0.25	5.6 /22.38
Flexible	3	0.6	1	1	5.6	0.25	5.6 /22.38
Total					22.38		

There were many other design processes to find the correct solution for customers that are at need such as, screening and scoring process to determine whether the particular model is sufficient enough to continue on. There are various and tedious steps in coming up with the correct solution, and I was able to master all of the skills to think like an engineer.