



Engineering Design - Optimizing Your Design

Once you have selected a design it's time to test it. During your tests you should be very careful to collect as much data as possible. This data will be helpful later when you are modifying your design to make it work better. It's important to note that just because you start with one design it does not mean you will finish with the same design. Hopefully your tests will indicate to you what may need to be changed about the design. Perhaps you will have to change the entire design, or perhaps you will only need to change certain parts of the design to make it work better.

Follow this process:

Test → Evaluate → Refine

Remember that engineering design is rarely a process that results in a perfect design the first time. The whole idea is to try different designs and solutions in order to eventually perfect them. While there is never only one solution to a problem in engineering, you can design the optimal solution given your specifications. But don't be afraid of scrapping your idea and starting fresh. Sometimes your tests will reveal information you never would have guessed before you started testing. Use that information and build on it!