

From The Ground Up

Your Guide To Starting An Education Corporation With Your Students

G. Grant



Design Thinking

Engineer

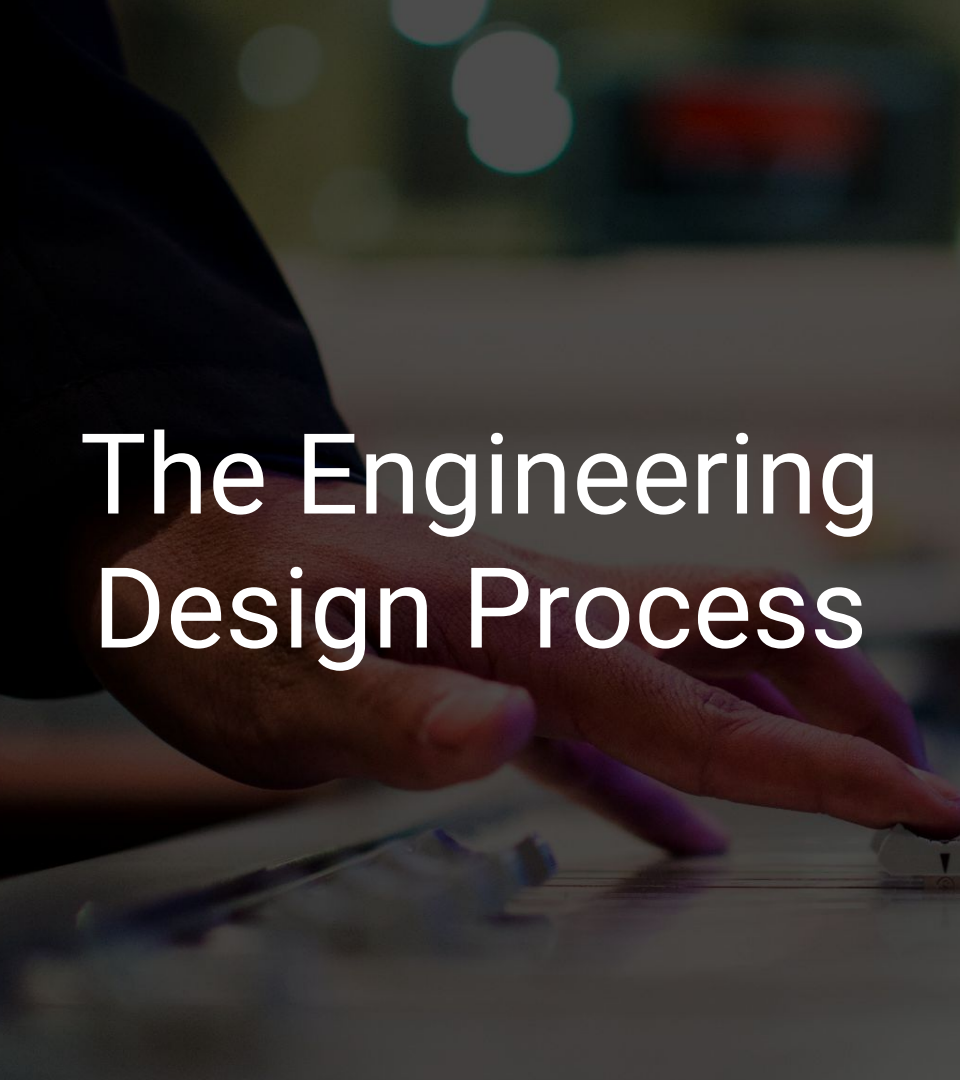
Write down the first 3 words that pop into your head.

Design Thinking

Engineer

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Problem Solver

A close-up photograph of a person's hands using a compass to draw on a technical drawing on a table. The background is blurred, showing some bokeh lights. The text 'The Engineering Design Process' is overlaid in white on the left side of the image.

The Engineering Design Process

Do you know that research has shown that using a process to arrive at a conclusion not only guarantees faster results, but the results are also more closely aligned with the original goals?

It saves time, money, energy, and eventually produces a better result if a standard linear process is followed.

This process was specially crafted to allow engineers to identify design opportunities, research, brainstorm, and build the best possible mousetrap.

The Engineering Design Process

There are several versions, but this is a great system for a product-based business

1. Idea

Identify Problems to be solved or design opportunities

3. Brainstorm

Write down as many possible solutions. Quantity over quality here.

5. Build

Let's see a prototype!

7. Market

Time to communicate with others and sell!

2. Research

Ask questions. See what is already out there. Get information. Speak to experts.

4. Draft and Sourcing

Draft your idea. Put pen to paper. Identify which materials would work with your vision.

6. Test

Test it for functionality. Focus groups, safety, appeal. Does it serve its purpose?

Go Back To Your Problems From Lesson 2.

You have a list of problems that need to be solved-design opportunities.

Begin the Engineering Design Process by working in a small group of students to:

- 1. Identify which problem you want to target*
- 2. Research what solutions already exist and what other information you can gather about the problem and related information.*
- 3. Brainstorm every possible solution you can think of.*