

## Engineering Design: How Engineers Invent New Things

Some steps in the engineering design process:

1. Define the problem: What is your goal? What are your constraints? What other specifications must you follow?

Definitions:

**Goal:** What you want your design to accomplish.

Example – today you want to build the fastest car that you can

**Constraints:** Limitations on how you can achieve that goal

Example – you must use the motor and materials provided for today's car

2. Generate ideas – anything you can think of

Example – you will be shown several ideas for car designs that you may use.

3. Analyze ideas – which ideas do you think will work best?

4. Build a prototype – pick a design and try building it

5. Test prototype

6. Repeat steps 3, 4 & 5 until you have something that works.