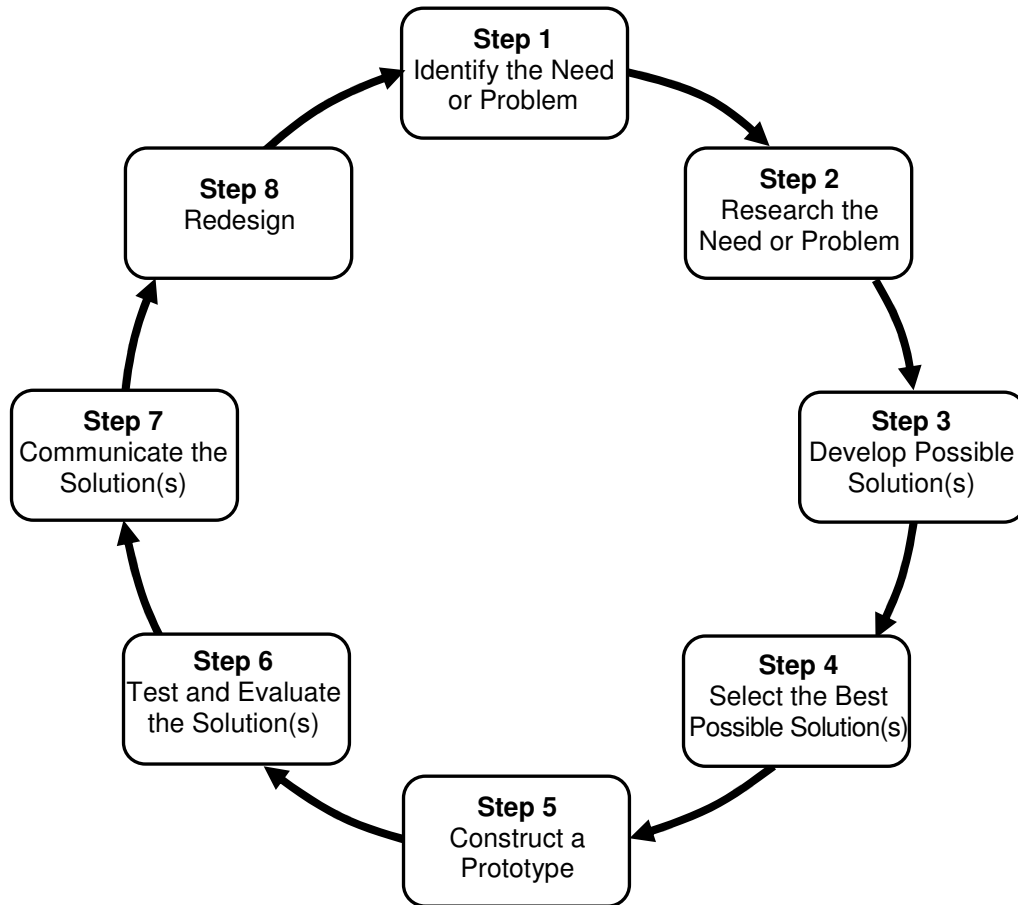


## Steps of the Engineering Design Process



1. Identify the need or problem
2. Research the need or problem
  - Examine the current state of the issue and current solutions
  - Explore other options via the Internet, library, interviews, etc.
3. Develop possible solution(s)
  - Brainstorm possible solution(s)
  - Draw on mathematics and science
  - Articulate the possible solution(s) in two and three dimensions
  - Refine the possible solution(s)
4. Select the best possible solution(s)
  - Determine which solution(s) best meet(s) the original need or solve(s) the original problem
5. Construct a prototype
  - Model the selected solution(s) in two and three dimensions
6. Test and evaluate the solution(s)
  - Does it work?
  - Does it meet the original design constraints?
7. Communicate the solution(s)
  - Make an engineering presentation that includes a discussion of how the solution(s) best meet(s) the initial need or the problem
  - Discuss societal impact and tradeoffs of the solution(s)
8. Redesign
  - Overhaul the solution(s) based on information gathered during the tests and presentation