Principles of Engineering
Identifying the problem
The problem statement
Research
Selecting the best solution explanation

So what does it mean to define a problem?

A problem solving statement should: *identify the problem that the product will solve and help focus your thinking around that problem. It should be a clear concise statement of a few sentences that address the who, what, why, when, where questions.*

Below are a few examples of questions you would have to ask about the problem to begin writing the problem solving statement. Use these questions as well as others to write a clear concise statement.

What problem is the product intended to solve?

To build a prototype crane that can handle the heaviest load while having the highest weight to mass ratio. As well as meeting all of the design parameters.

What are the criteria and/or constraints that must be followed during the process of solving the problem?

Key questions to ask should incorporate: time, money, resources allowed/not allowed, technologies, applications.

My Problem statement <u>project name</u>

<u>Research</u>

<u>Selecting the best solution</u>