

Important Terms

Become familiar with the following terms and their definitions in the context of this project.

Science – The study of the material world to learn how and why it works

Scientific Method – The process of observing, asking questions, and experimenting to learn about the material world

Invention – A new and unique solution or device to solve an observed problem

Innovation – An improved/enhanced solution or device

Engineering – The application of science to create useful products and systems through careful design, building, testing, and iteration

Engineering Design Process – The steps an engineer follows to develop a solution to a problem

Research – To study and learn the important details about a certain topic

Scope – The things which must be considered about a problem/design; how big/small something is

Criteria – The important requirements

Constraint – A restriction for the design

Design – A detailed plan for how something will work and what it will look like

Prototype – A model of the design to prove that it works

Iteration – Repeated testing and improvement to make the design better

Testing – Experiments and measurements to see how well something works

Collaboration – Working with other people to accomplish a goal