

Student Guide

for entering BOTH

 NATIONAL 
INVENTIONTM
CONVENTION

PRESENTED BY  United Technologies

&



Spark!Lab Dr. InBae Yoon
2019 Invent It-Challenge

PRESENTED BY  Smithsonian 

OVERVIEW

Why should you enter both competitions?

- You are already working on an invention and following a nearly identical 7-step process of invention.
- You can easily convert your materials for one competition to become eligible for the other.
- You get access to additional resources to learn about the invention process.
- You will improve your invention and your chances of being recognized in both competitions.
- You get to showcase your invention to a larger audience by competing in first-rate national and global competitions.
- You can earn recognition from two world-class organizations (The Henry Ford Museum and Smithsonian).
- You can win amazing prizes such as a trip to Smithsonian in Washington D.C. and The Henry Ford Museum in Michigan awards recognizing your talents as an inventor.



Who can qualify?

- You are an Invention Convention participant ages 5-18 and your invention could possibly help older adults. (Your invention doesn't have to target only older adults; it just needs to benefit them in some way.)
- You are an Invent It Challenge participant in grades K-12 and you have been chosen as a winner in one of the four Individual or Team age categories: Ages 5-7, Ages 8-10, Ages 11-13, or Ages 14-18. (You will qualify for the National Invention Convention through the Independent Inventor Program.)



How are the competitions similar?

Both competitions require students to document their journey through the invention process and create written, physical, and visual components as part of their entries. Students entering the National Invention Convention and Spark!Lab Dr. InBae Yoon 2019 Invention Challenge must:

- follow a 7-Step Invention Process.
- document their progress through the invention process.
- create a prototype.
- create a visual presentation.
- create a pitch conveying the value and impact of the invention.



HOW TO ENTER BOTH COMPETITIONS

You can easily and effortlessly adapt your materials to enter both competitions!

#1

Requirement 1: The Written Component

Both competitions require entrants to document their progress through a 7-step invention process in writing.

- **For Invention Convention participants** wanting to enter the Invent It Challenge, you'll need to transfer the information in your [Invention Logbook](#) to the [Invent It PowerPoint Template](#) or a video including both text and images or video clips.
- **For Invent It Challenge participants** qualifying to enter the National Invention Convention, you'll need to transfer the information in your [Invent It PowerPoint Template](#) or video to an [Invention Logbook](#).

Invention Convention	Invent It Challenge
Identifying - brainstorm problems and use research to discover problems and uncover who might be affected.	Think It! - identify problems or challenges faced by older adults and think of a way you can invent something that enhances or improves their daily lives; choose the problem you want to solve.
Understanding - use patent sites and search engines to be sure the solution is original and does not already exist.	Explore It! - research to learn how others have addressed the problem or challenge; think about what your invention will do, who it will be for, and how it will be different from any other inventions you discovered.
Ideating - narrow down the problems and solutions you've identified and researched and begin to develop a project management plan for the invention.	Sketch It! - make multiple sketches of your idea, labeling materials, parts, and functions to show how it might work.
Designing - decide what your invention solution will be made of, what it will look like, and how it will work; draw a sketch of the initial prototype, labeling materials, parts, and functions.	
Building - construct a prototype based on your design.	Create It! - construct a prototype based on your design.
Testing - develop hypotheses about your invention; then, ask people to use or review your prototype and collect data and receive feedback to learn what works and what does not work about your invention; analyze the pros and cons of your invention, its impact on society and the environment, its marketability, and its social value; repeat the design, building, and testing process until your prototype works well.	Try It! - ask people to use or review your prototype and collect data and receive feedback on how to make your invention better; create a plan to improve your invention.
	Tweak It! - based on the data you collected and feedback you gathered, identify ways you can improve your invention and make any necessary changes to your prototype.
Communicating - explain the problem and your research, how your invention solves the problem, who might use the invention, the process you followed in creating this invention, and improvements that can still be made.	Sell It! - develop a "sales pitch" that clearly explains how the invention improves and enhances the daily lives of older adults, who should use it, how it works, and is different from any solutions that came before it.

#2

Requirement 2: The Visual Component

Both competitions require entrants to create a visual presentation.

- **For Invention Convention participants** wanting to enter the Invent It Challenge, you don't need to create anything new as the [Invent It PowerPoint Template](#) or video you create qualifies as your visual presentation.
- **For Invent It Challenge participants** qualifying to enter the National Invention Convention, you'll need to transfer the information in your [Invent It PowerPoint Template](#) or video to a Display Board that shows what you invented, why you invented it, how you built it, how it works, and who it helps, along with other required information. (See the [Invention Logbook](#) for more information.)

#3

Requirement 3: The Physical Component

Both competitions require entrants to build a physical prototype of their invention.

- **For Invention Convention participants** wanting to enter the Invent It Challenge, you don't need to create anything new, but you do need to preserve your prototype for display at the [Smithsonian Spark!Lab](#) in the event you are chosen as a winner of the Invent It Challenge.
- **For Invent It Challenge participants** qualifying to enter the National Invention Convention, you don't need to create anything new, but you do need to preserve your prototype for display at the National Invention Convention as well as at the [Smithsonian Spark!Lab](#).

#4

Requirement 4: The Pitch

Both competitions require entrants to create a pitch that markets their invention.

- **For Invention Convention participants** wanting to enter the Invent It Challenge, you don't need to create anything new. However, you should incorporate your video pitch as documentation of the "Sell It" step in your [Invent It Challenge PowerPoint Template](#) or video.
- **For Invent It Challenge participants** qualifying to enter the National Invention Convention, you need to create a video pitch – if you haven't already created one for the "Sell It" step - that succinctly communicates the invention process you followed and the impact of your invention. Be prepared to submit your video pitch well in advance of the National Invention Convention which takes place from May 29-31. (See the [National Invention Convention website](#) for more information about the Judging Rubric).

Be sure to also view the [National Invention Convention Registration Information](#) and [Judging Rubric](#) as well as the Invent It Challenge [Official Rules](#) and [Scoring Guide](#) to ensure your eligibility, follow the correct procedures for registering or entering, and analyze the quality of your entry. For Invent It Challenge winners, a representative from the National Invention Convention will assist you with the registration process.

About the National Invention Convention: Invention Convention, sponsored by The Henry Ford, brings together problem-solvers, inventors, and entrepreneurs of all ages. It provides students an interactive and interdisciplinary opportunity to use the invention process to create and pitch an original product at a statewide convention. Students who qualify may compete in state events and the annual National Invention Convention.

About the Spark!Lab Dr. InBae Yoon Invent It Challenge: The Invent It Challenge, created by Smithsonian's Lemelson Center and Cricket Media, engages and empowers students across the globe to learn and use Smithsonian's 7-step Spark!Lab Invention Process to make change in our world and solve global problems. This year, participants will generate inventions that enhance and improve the daily lives and activities of older adults.