



Innovation  
Exploration Kit™

# ACCESSIBLE STEM ACTIVITIES

HANDS-ON, SELF-LED LEARNING

GRADES K-9



FROM THE CREATORS OF CAMP INVENTION® – A NATIONAL INVENTORS HALL OF FAME® EDUCATIONAL PROGRAM







# THE INNOVATION MINDSET

At NIHF, we believe every child can invent. Through open-ended, hands-on exploration, our programs help children build an Innovation Mindset – a growth mindset infused with lessons from world-changing inventors – to enable and empower them in any area of life.

The Innovation Mindset is made up of nine essential skills and traits that are strengthened every time a child applies them. Each Innovation Exploration Kit highlights different aspects of this mindset, guiding students to unlock their potential and discover the magic of their own creativity.



## INNOVATION EXPLORATION KITS



### I CAN INVENT™ SERIES, K-6

With real robots in each kit, students engage in our most popular hands-on activities, from coding to reverse engineering.

- Innovation
- Persistence
- Design Thinking
- STEM



### ELEVATE SERIES, K-6

Four inspiring kits lead students on a journey exploring principles of flight, sports innovations, real environmental challenges and more.

- Design Thinking
- Creative Problem Solving
- Intellectual Property
- Entrepreneurship



### INNOVATION FORCE® LIMITED EDITION KIT, K-6

Imaginative activities help students build confidence in their creativity as they design superhero personas, disguises and gadgets.

- Innovation
- Confidence
- Creative Problem Solving
- STEM



### INVENTION PROJECT® SERIES, 6-9

Young innovators gain valuable skills as they explore entrepreneurship, design futuristic clothing, build simple robots and more.

- Confidence
- Persistence
- Entrepreneurship
- Intellectual Property



# I CAN INVENT<sup>®</sup>

## INNOVATION EXPLORATION KIT<sup>™</sup>

## CREATIVE ACTIVITIES WITH CAMP INVENTION'S BEST BOTS

This robust series delivers the most popular activities from past Camp Invention<sup>®</sup> K-6 programs. Each one includes a different robot and provides opportunities for hands-on exploration. The experience begins with our Starter Set, and additional kits can be added for more fun and learning.

### PRICING:

\$175 for the bundle of all five kits

\$65 for the Starter Set

\$45 for each additional kit if purchased separately



Bot ANN-E & Innovation Force: Starter Kit



Optibot



Robotic Pet Vet



DIY Orbot



# I CAN INVENT<sup>®</sup>

INNOVATION EXPLORATION KIT<sup>™</sup>

## INNOVATION FORCE<sup>®</sup> AND BOT ANN-E<sup>™</sup>: STARTER SET

Children dive into the I Can Invent series as they:

- Receive all the necessary supplies to create superhero disguises and gadgets, including a device that picks up toxic sludge (SLIME!).
- Unbox a high-tech agricultural robot named Bot ANN-E, and all the tools they need to complete fun challenges.
- Follow step-by-step instructions to code their robot to plant seeds and navigate landscapes they've created.



### MATERIALS

AAA batteries  
Beads (red and white)  
Bot ANN-E robot  
Bot ANN-E sheet  
Bright Ideas Kit  
Camp Invention T-shirt  
Cape  
Cardboard connectors  
Comic book  
Copy paper  
Cord lock  
Duct tape  
Farm animal figure  
Federico Faggin figure

Hacky sack  
Inventor Log  
Kaleidoscope  
Markers  
Mask  
Masking tape  
Packing paper  
Pencil  
Putty  
Safety glasses  
Safety saw  
Scissors  
Sliding puzzle

Slime  
Step-by-step activity guides  
String





# I CAN INVENT<sup>®</sup>

INNOVATION EXPLORATION KIT<sup>™</sup>

## OPTIBOT<sup>™</sup>

Children prepare to navigate the future as they:

- Receive self-driving robots and everything they need to make tracks the robots can follow.
- Build creativity and persistence by personalizing, modifying and testing their Optibots.
- Explore how sensors are used in automated systems like the ones in self-driving cars.



## MATERIALS

Adhesive gems

Black permanent marker

Clay

Colored permanent markers

Copy paper

Exploring With Optibot  
sheet

Finger flashlights

Inventor Log

Masking tape

Ocean stickers

Optibots

Paper cups

Pencil

Spec sheets

Step-by-step activity guide



For more information, visit [invent.org/kits](https://invent.org/kits)



# I CAN INVENT<sup>®</sup>

INNOVATION EXPLORATION KIT<sup>™</sup>

## ROBOTIC PET VET<sup>™</sup>

Robotics and veterinary science combine as children:

- Receive two robotic dogs – one to take apart and diagnose, and one to personalize.
- Unbox all their hands-on materials and build a dog park using simple machines.
- Follow step-by-step instructions to investigate dog anatomy and perform surgery.



### MATERIALS

AA batteries  
Adhesive fur  
Adhesive gems  
Craft sticks  
Fur templates

Foam blocks  
Masking tape  
Inventor Log  
Operation table sheet  
Pencil

Robotic dog  
Safety glasses  
Scissors  
Screwdrivers  
Step-by-step activity guide





# I CAN INVENT<sup>®</sup>

INNOVATION EXPLORATION KIT<sup>™</sup>

## DIY ORBOT<sup>™</sup>

Children take on exciting challenges as they:

- Receive all the materials they need to customize and operate remote-controlled robots.
- Build perseverance by completing a series of tasks with their robots.
- Explore lessons in reverse engineering and the invention process.

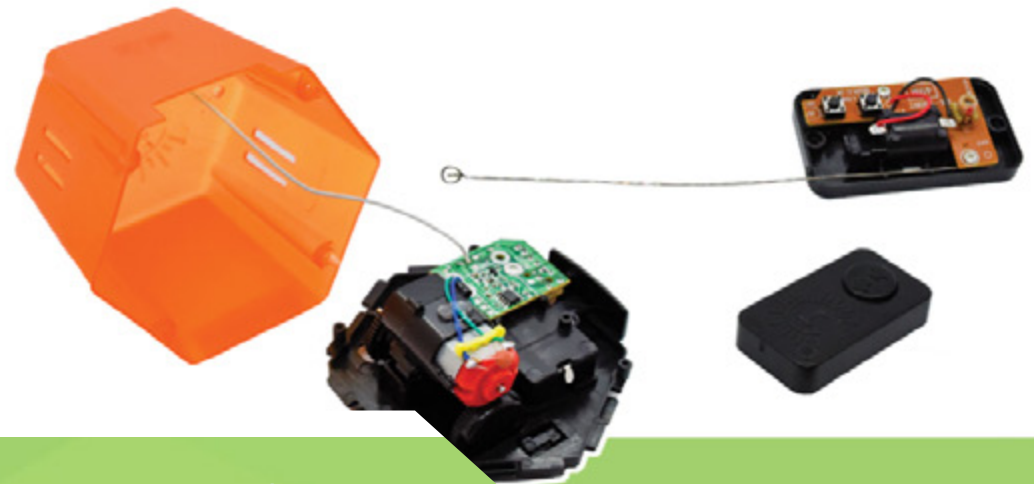


### MATERIALS

AAA batteries  
Button batteries  
Certification stickers  
Copy paper  
Craft sticks  
DIY Orbot face stickers

DIY Orbots with remotes  
Foam blocks  
Googly eyes  
Inventor Log  
Masking tape  
Pencils

Pipe cleaners  
Safety glasses  
Scissors  
Screwdriver  
Step-by-step activity guide  
Table tennis ball





# INNOVATION EXPLORATION KIT™ **ELEVATE** SERIES

## CURIOSITY TAKES FLIGHT WITH EXCITING CHALLENGES

Our Elevate series lets children's imaginations soar. Students in grades K-6 are introduced to world-changing inventors, practice divergent thinking and explore a different theme in each of four kits, from flight and sports innovations to intellectual property and environmental science.

### PRICING:

\$115 for all four kits

### ACTIVITY GUIDES:

Available in both English and Spanish



Camp Invention Champions



Design Thinking Project



Camp Invention Flight Lab



Rescue Squad



# INNOVATION EXPLORATION KIT™ **ELEVATE** SERIES

## CAMP INVENTION CHAMPIONS™

Children become game-changing innovators as they:

- Receive everything they need to design and build the ultimate sports complex.
- Collect Inventor Trading Cards to discover the inspiring stories of inventors who have shaped the world of sports.
- Follow step-by-step instructions to incorporate simple machines into tabletop games.



### MATERIALS

Ball bearing  
Balloon cups and sticks  
Bendable straws  
Bungee cord  
Button magnets  
Champions Box  
Coffee stirrers  
(wooden paddle-shaped)  
Cord locks  
Foam ball  
Innovation Dream Team  
Trading Cards  
Inventor Log  
Jumbo craft sticks  
Markers  
Masking tape

Netting  
Pencil  
Plastic game piece stand  
Player silhouette sheets  
Playing surface sheets

Scissors  
Step-by-step activity guide  
Triangular paper clips





## A young girl with dark skin and braided hair, adorned with a colorful beaded headband, is smiling broadly while wearing large, clear safety goggles. She is holding a small, blue and white soldering iron in her right hand, positioned over a project on a table. The project appears to be a small electronic device or a model, possibly related to the 'Energy Storage' project mentioned in the text. The background is slightly blurred, showing a classroom or workshop setting with other people and equipment.

Children begin to see themselves as capable creators and entrepreneurs when they:

- ## MATERIALS

Black paper

Black permanent marker

Clay

Clay tool

Deal cards sheet

## Design Thinking Portfolio

## Inventor Log

## Markers

Masking tape

Patent drawings sheet

### Patterned duct tape

Pencil

### Pipe cleaners

Plastic base

Ruler

## Scissors

### Step-by-step activity guide

## The Creator's Key to

Intellectual Property poster

Tracing paper

## Transparency

Video game controller

patents sheet

White chalk





# INNOVATION EXPLORATION KIT™ **ELEVATE** SERIES

## CAMP INVENTION FLIGHT LAB™

Children earn their wings as they:

- Take apart and customize a high-tech flight simulation robot.
- Follow step-by-step instructions to investigate the inner workings of their robot.
- Receive everything they need to experiment with principles of flight, such as lift and thrust.



### MATERIALS

AA batteries  
Classic paper airplane sheets  
Classic paper airplane instructions  
Feathers  
Flight Inductee Book  
Hand-copter  
Inventor Log  
LINK accessory stickers  
LINK robot  
Pencil  
Safety glasses  
Screwdriver

Step-by-step activity guide

Straw

Washi tape





# INNOVATION EXPLORATION KIT™ **ELEVATE** SERIES

## RESCUE SQUAD™

Creative thinking helps protect the planet as children:

- Follow step-by-step instructions to construct parachutes and safely airdrop wildlife.
- Receive all the materials they need to design and create an energy-efficient LED plant.
- Take on environmental challenges and practice creative problem solving to restore balance in nature.



### MATERIALS

Animal figure  
Brown crinkle paper  
Clothespins  
Coin battery  
Craft stick  
Felt flower  
Flowerpot  
Glowing Garden Book  
Green painter's tape  
Inventor Log  
Leaf template  
Lei flower  
Markers  
Masking tape  
Paper muffin cup

Pencil  
Rainbow LED  
Rescue Squad  
temporary tattoo  
Resealable plastic bag

Scissors  
Silver conductive tape  
Step-by-step activity guide  
String





# INNOVATION FORCE LIMITED EDITION

## IMAGINATIVE ACTIVITIES AT AN AFFORDABLE PRICE

This kit delivers superhero-themed activities meant to engage and inspire children in grades K-6. Available for a limited time, this kit has flexible delivery options and price points.

### PRICING:

#### Centralized Delivery:

\$10 per kit, 1-3 delivery sites

#### Decentralized Delivery:

\$12 per kit, multiple (up to 30) delivery sites

#### Home Delivery:

\$16 per kit, delivered directly to student's home address

### ACTIVITY GUIDES:

Available in both English and Spanish





# INNOVATION FORCE LIMITED EDITION

## INNOVATION FORCE® LIMITED EDITION

Children unlock their creative superpowers as they:

- Design and create their own superhero persona and disguise to join the Innovation Force – a team of heroic inventors.
- Receive a series of fun worksheets to put their superpowers to the test.
- Get immersed in the Supercharged Comic Book story starring our NIHF Hall of Famers.



### MATERIALS

Cape  
Cardboard connectors  
Mask  
Pip lizard figure  
Pip activity cards  
Slime  
Step-by-step activity guide  
Supercharged Comic Book

### WORKSHEETS

Hall of Famer activity sheet (3)  
Hall of Famer quiz challenge sheet (5)  
Innovation Force quiz  
Math worksheet





# INNOVATION EXPLORATION KIT™ **INVENTION PROJECT SERIES**

## REAL-WORLD CHALLENGES BUILD CONFIDENCE AND SKILLS

This inspiring set of four at-home activity kits delivers the hands-on fun of Camp Invention and elevates it to engage students in grades 6-9. Each kit is packed with all the materials innovators need to take on exciting challenges and build perseverance and goal-setting skills.

### PRICING:

\$135 for all four kits

### ACTIVITY GUIDES:

Available in both English and Spanish



E-Racer Bots



Fly Gliders



RC Origami Bot



Wear It Out



INNOVATION EXPLORATION KIT™

# INVENTION PROJECT SERIES

## E-RACER BOTS™

Children develop persistence as they:

- Create simple robots using a motor and eraser.
- Use vibration to make their robots move through trial and error.
- Gain insight on advanced batteries from Collegiate Inventors Competition® Finalists.



### MATERIALS

Binder clips  
Chart paper  
Coin batteries  
Corks  
Erasers  
E-Racer bots sheet  
Feathers  
Large paper clips  
Markers  
Masking tape  
Pencil  
Pushpins  
Rubber bands  
Scissors  
Small paper clips  
Step-by-step activity guide

Vibrating motors  
Webbing Out sample sheet





INNOVATION EXPLORATION KIT™

# INVENTION PROJECT SERIES

## FLY GLIDERS™

Imagination takes off as children:

- Receive all the materials they need to explore flight, inspired by NIHF Inductees Orville and Wilbur Wright.
- Experiment with an electronic heliball and airplane structural design.
- Build a rescue plane prototype and explore the role of wing shape and nose weight in an airplane's trajectory.



### MATERIALS

Hand-copter  
Classic paper airplane sheet  
Colored copy paper  
Markers  
Masking tape  
Paper clips  
Scissors  
Heliball  
Masking tape  
Safety glasses  
Step-by-step activity guide





# INNOVATION EXPLORATION KIT™ **INVENTION PROJECT SERIES**

## **RC ORIGAMI BOT™**

Children explore new possibilities as they:

- Receive all the materials they need to construct and operate a remote-controlled robot.
- Apply creative thinking to transform their bots from 2D figures to 3D objects.
- Explore remote-control technology, including the use of medical robots.



### **MATERIALS**

AA batteries  
Black permanent marker  
Markers  
Masking tape  
RC Origami Bot Kit  
Safety glasses  
Scissors  
Screwdriver  
Step-by-step activity guide  
Transparent tape





# INNOVATION EXPLORATION KIT™ **INVENTION PROJECT SERIES**

## WEAR IT OUT™

Children bring innovative ideas to life as they:

- Use creative problem solving to engineer clothing of the future to function in extreme weather.
- Follow step-by-step instructions to protect their idea, draft a business plan and launch a powerful pitch.
- Receive complete materials and inspiration from NIHF Hall of Famers to tap into their creativity.



### MATERIALS

Adhesive notepad  
Business Basics sheet  
Coin batteries  
Conductive thread  
Copy paper  
Fabric  
Feathers  
Felt  
Go-to-Market sheet  
LEDs  
Markers  
Masking tape  
Pencil  
Pipe cleaners  
Recyclables  
Scissors

Sewable sequin lights  
Sewing needle with cork  
Step-by-step activity guide  
The Creator's Key to  
Intellectual Property poster

Threader  
Umbrella  
Wear It Out sheet





# KEEP STUDENTS ENGAGED WITH ACTIVITY KITS

**TO LEARN MORE, CONTACT:**

**800-968-4332**

**NIHFatmyschool@invent.org**

[invent.org](https://www.invent.org)



National Inventors  
Hall of Fame®

*Inspiring Future Innovators®*

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UNITED STATES  
PATENT AND TRADEMARK OFFICE

The National Inventors Hall of Fame provides STEM education programs for young innovators from PreK through grade 12.