

The Sphero logo is rendered in a light blue, lowercase, sans-serif font. The background of the entire slide features a dark blue field with a repeating pattern of light blue, isometric wireframe cubes. On the right side, there is a large, solid blue graphic element that resembles a stylized letter 'S' or a gear-like shape. In the bottom left corner, there is a faint, red wireframe gear-like pattern.

sphero

INSPIRING THE CREATORS OF TOMORROW

# Engineering in All Grades with Sphero's Blueprint

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***Professional Development Manager***



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# STEM Challenges

- Starting too late 🕒
- Diversity of students 🧑🏻 🧑🏻 🧑🏻 🧑🏻
- Intimidating products and curriculum 😬
- Stacking skills before development  
🧑🏻 🧮 🔬
- Losing students along the way 😞

# Why Sphero?



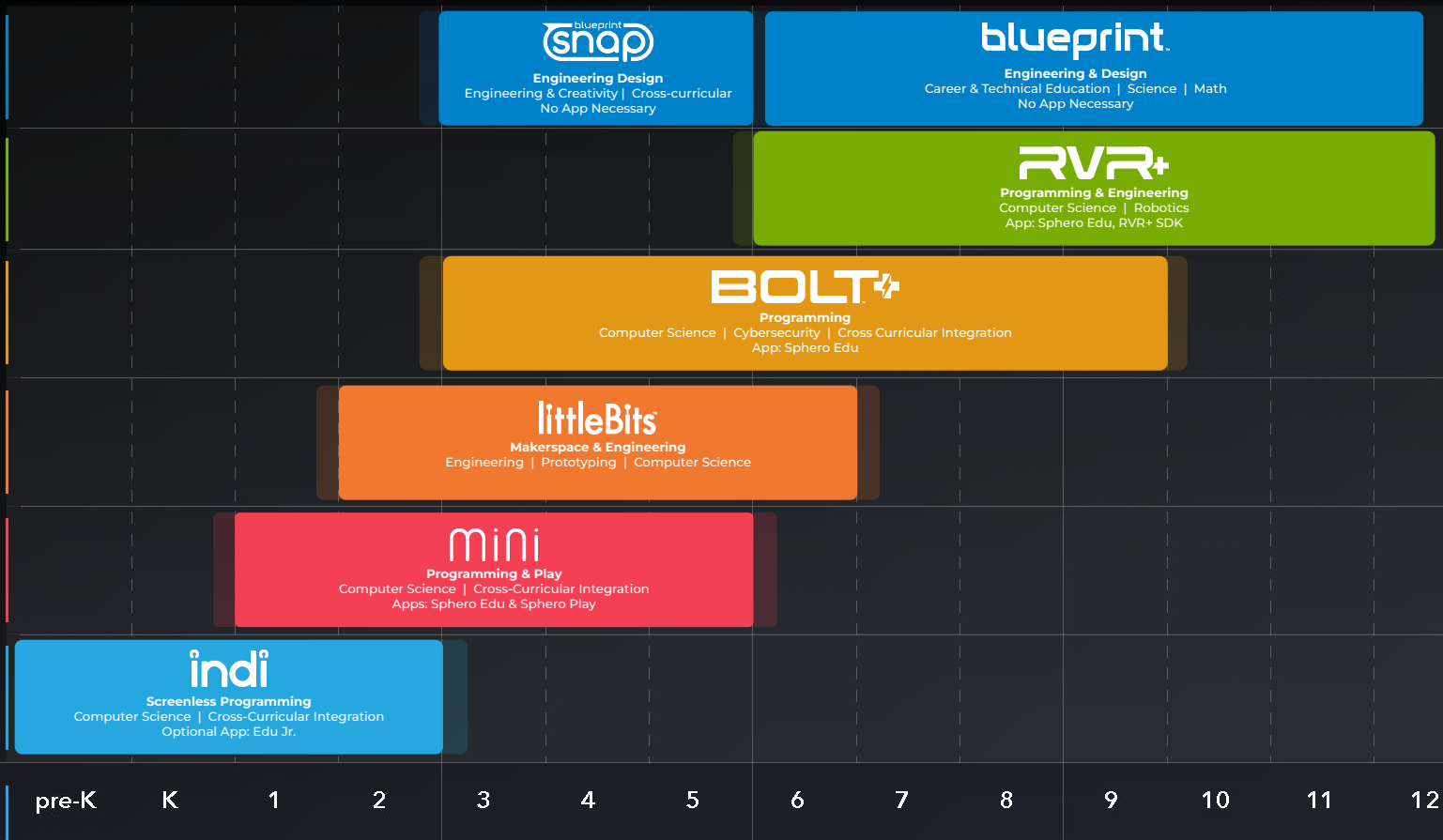
Let us be your  
STEM Sidekick



- Accessible, engaging STEM tools for diverse learners 🤖
- Standard-aligned lessons + resources 🎓
- Cross-curricular applications from K-12 🎒 🚌 🍏

# Product Offerings

COMPUTATIONAL THINKING  
PROBLEM SOLVING  
COLLABORATION  
CRITICAL THINKING  
ENGAGEMENT



# Our Focus for Today

COMPUTATIONAL THINKING  
PROBLEM SOLVING  
COLLABORATION  
CRITICAL THINKING  
ENGAGEMENT



**Engineering Design**  
Engineering & Creativity |  
Cross-curricular  
No App Necessary



**Engineering & Design**  
Career & Technical Education | Science | Math  
No App Necessary



**Programming & Engineering**  
Computer Science | Robotics  
App: Sphero Edu, RVR+ SDK

US Grade

pre-K

K

1

2

3

4

5

6

7

8


9

10

11

12



The image features a central logo for 'blueprint snap sphero' set against a dark background with white wireframe outlines of various mechanical parts. The word 'blueprint' is in white, lowercase, sans-serif font. 'snap' is in a large, rounded, lowercase font with 's' in pink, 'n' in orange, 'a' in yellow, and 'p' in green. 'sphero' is in white, lowercase, sans-serif font. A blue graphic element, resembling a stylized 'U' or a bracket, frames the 'snap' text. The background wireframes include a long rectangular assembly, a circular component, and several smaller mechanical parts.

blueprint  
snap  
sphero



*Recommended for grades 3–5*

- Teaches engineering fundamentals—students explore structure, motion, and simple machines with colorful, easy-to-assemble parts.
- Encourages design thinking—students can build from instructions and create their own prototypes in under an hour.
- Includes free resources in Sphero Central: Challenge Cards, lesson units, and cross-curricular activities aligned to STEL and NGSS.
- No screens, batteries, or complicated tools—implementation is quick and classroom-friendly.

**Preorder for Late Fall 2025 delivery**





### **Blueprint Snap Kit**

*Supports 1-2 learners*

- 1 Blueprint Snap Kit (288 mechanical parts)
- 1 Storage Bin for easy organization
- 1 set of 15 Challenge Cards
- 1 Quick Start Guide
- Units & Lessons (digital)

### **Blueprint Snap Class Pack (8 kits)**

*Supports 16 learners*

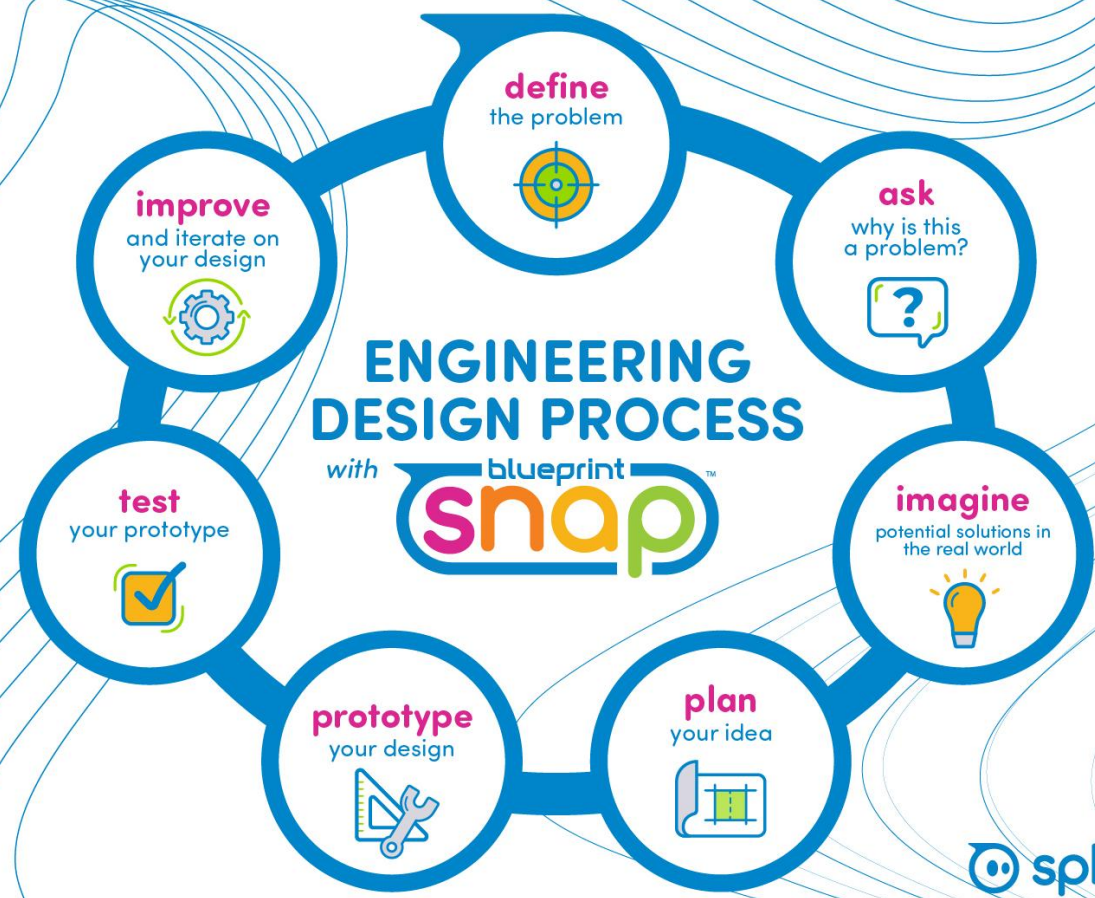
- 8 Blueprint Snap Kits (288 mechanical parts per kit)
- 8 Storage Bin for easy organization
- 8 sets of 15 Challenge Cards
- 8 Quick Start Guides
- 1 Educator Guide
- 1 Poster

### **Blueprint Snap Class Pack (16 kits)**

*Supports 32 learners*

- 16 Blueprint Snap Kit (288 mechanical parts per kit)
- 16 Storage Bin for easy organization
- 16 sets of 15 Challenge Cards
- 16 Quick Start Guides
- 2 Educator Guides
- 2 Posters





**ENGINEERING  
DESIGN PROCESS**  
with **blueprint  
snap**

TM

# Snap Lessons



Improve on a bridge design to make it stronger and more stable

[View Lesson](#)



Test gravity and stability while building a tower that stays standing.

[View Lesson](#)

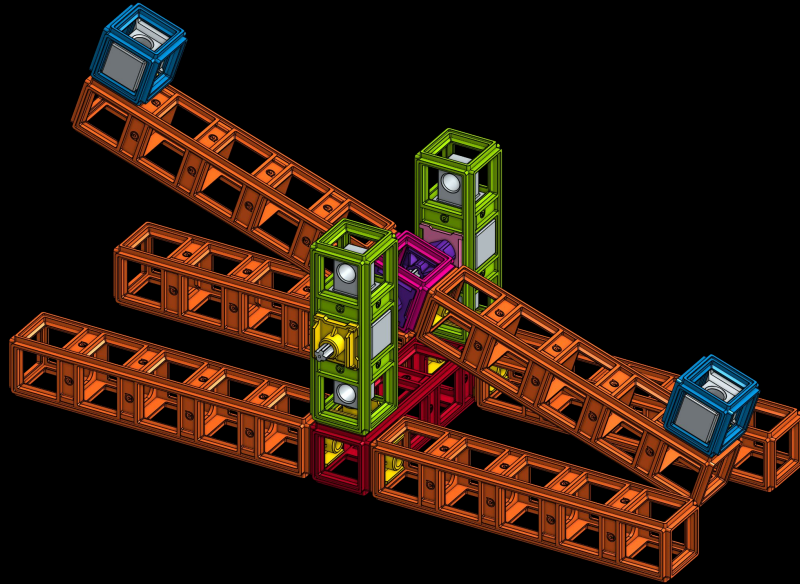


Build a castle and create a feature to protect it!

[View Lesson](#)



# Snap Lessons Sneak Peek



Balancing Act



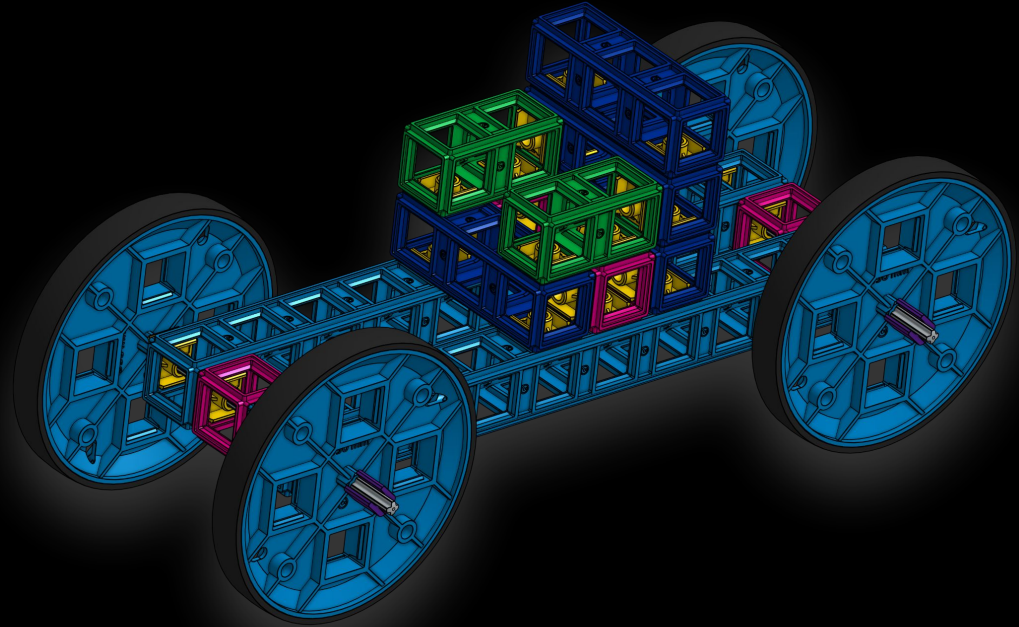
Successful Swings



## CAD Skills with TinkerCAD

All Snap Kit parts will be available as a Featured Collection right in TinkerCAD for students to customize their builds and even design and 3D print their own custom parts.

Available November 2025



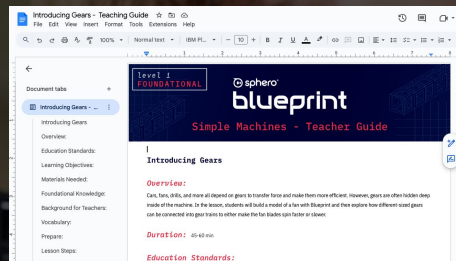


sphero<sup>®</sup>

blueprint<sup>™</sup>



Lessons, Resources, and More



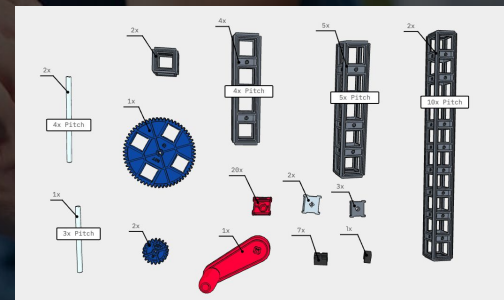
Teacher Guide



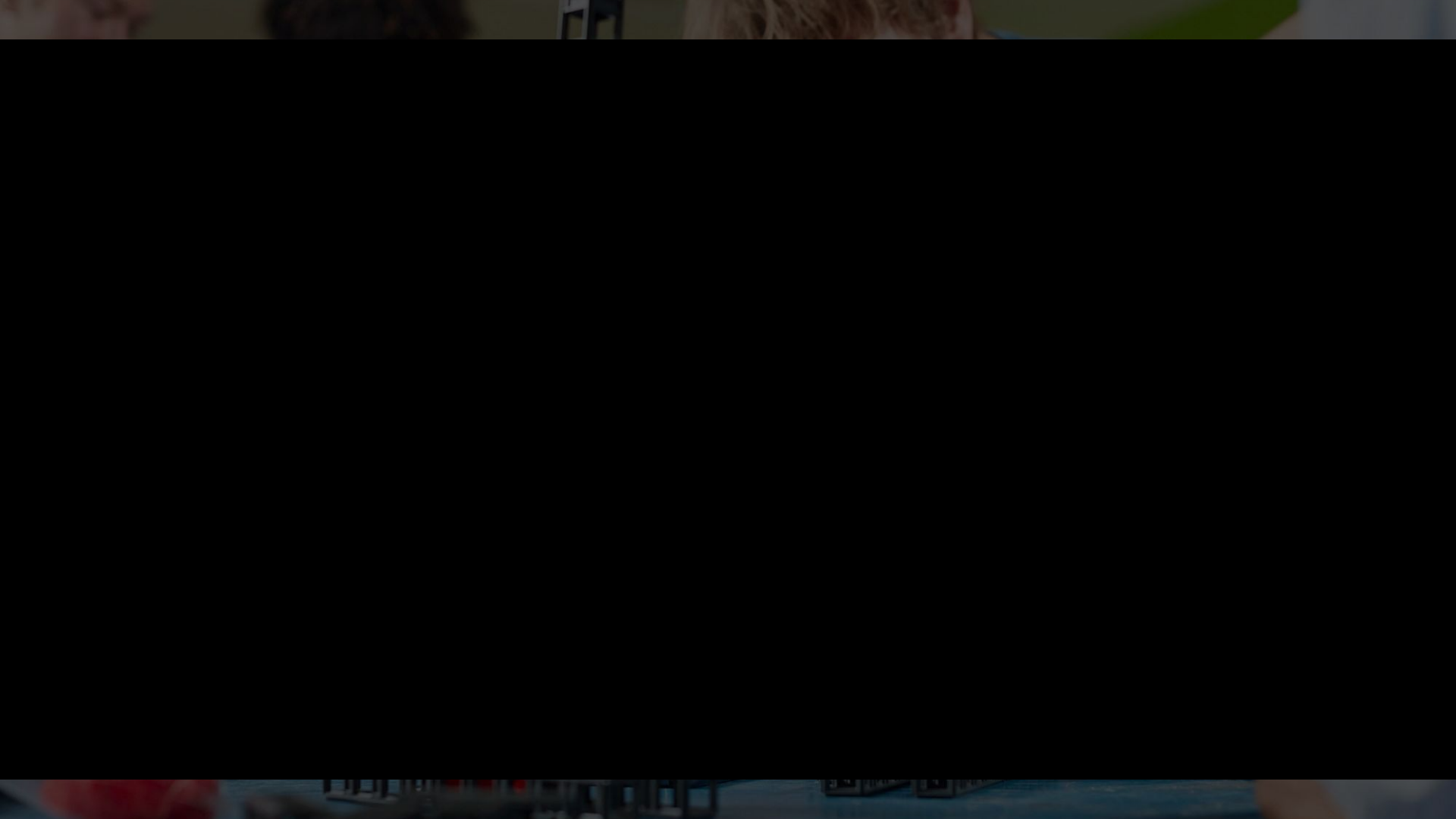
Lesson Slides



Student Handout



Build Instructions





**Thunder Valley K-8 STEM**

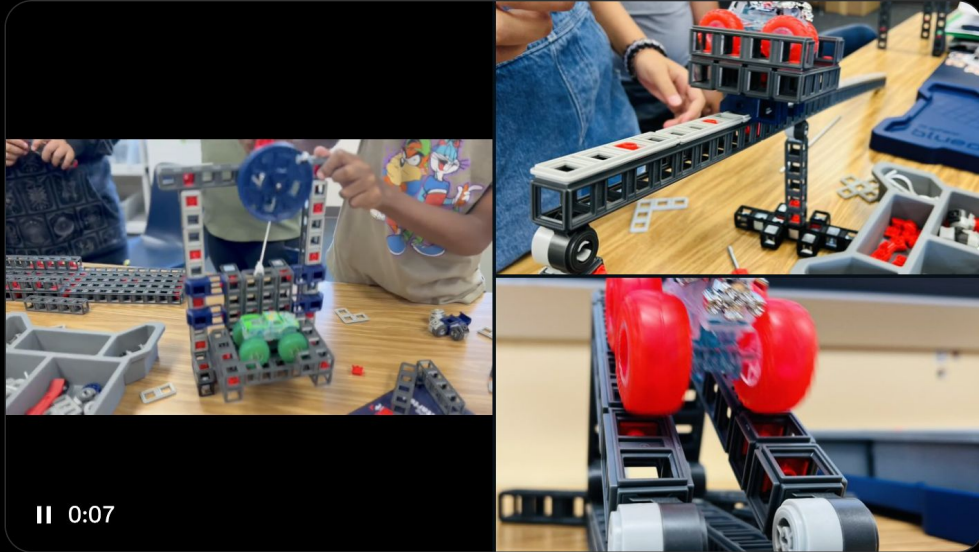
@Raptor\_STEM



...

@Sphero Blueprint meets Monster Trucks!

We had a blast prototyping elevators, bridges, and monorails for Bone Shaker.



|| 0:07



Joseph Carlson • 2nd

--Media Teacher at Wayne-Westland Community School Distr...

3mo • 📍

+ Follow ...

Future civil engineers hard at work collaborating to build an inclined crane with Sphero Blueprint. These boys have struggled all school year to complete tasks in class. This was a monumental victory for their student-centered learning.



# Outcomes: Snap vs Blueprint

Snap's educational outcomes are similar and complementary to Blueprint's.



- follow instructions
- define a simple design problem
- conduct tests
- generate solutions
- compare multiple ideas



- I can improve a model, prototype or design
- I can conduct valid tests, trials, and scientific experiments
- I can analyze data and draw conclusions
- I can understand basic math and scientific principles
- I can apply concepts to new and different situations

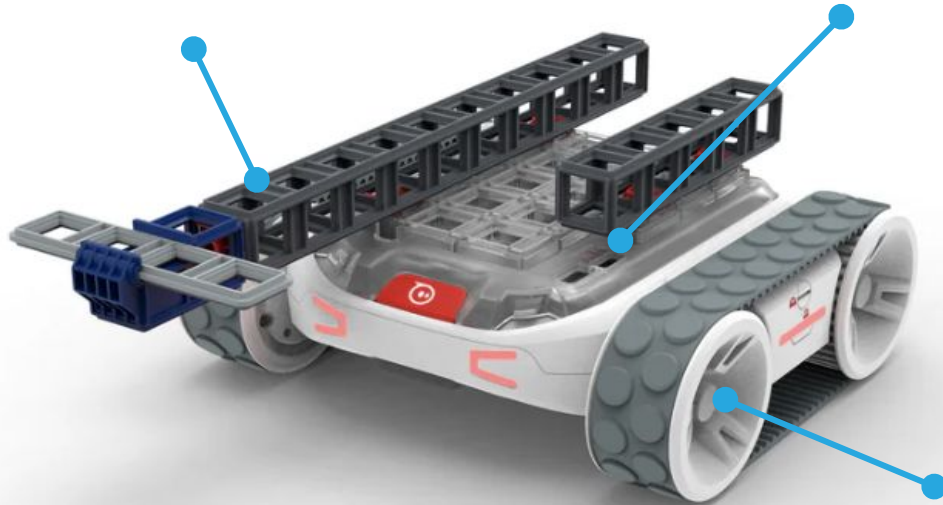
sphero®

RVR+™



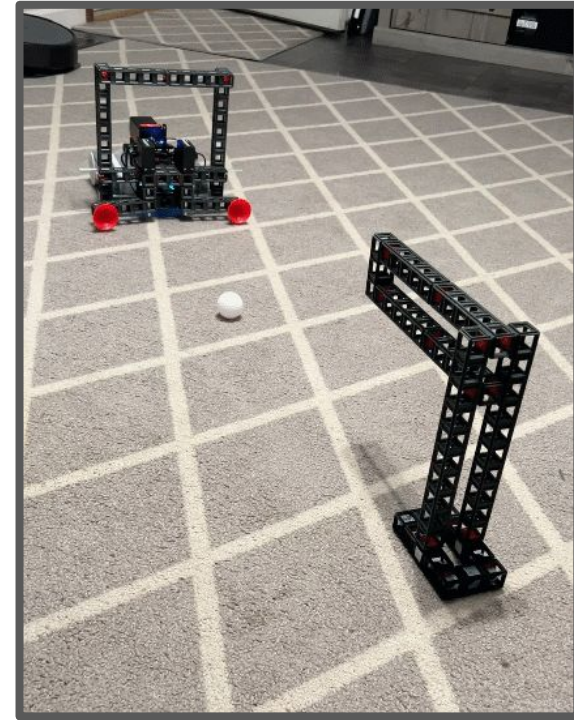
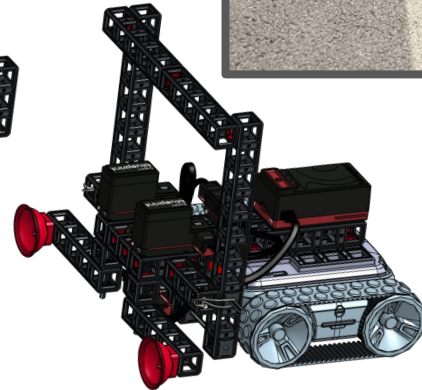
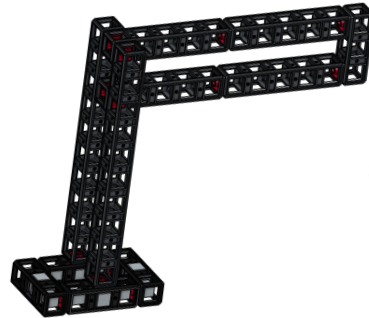
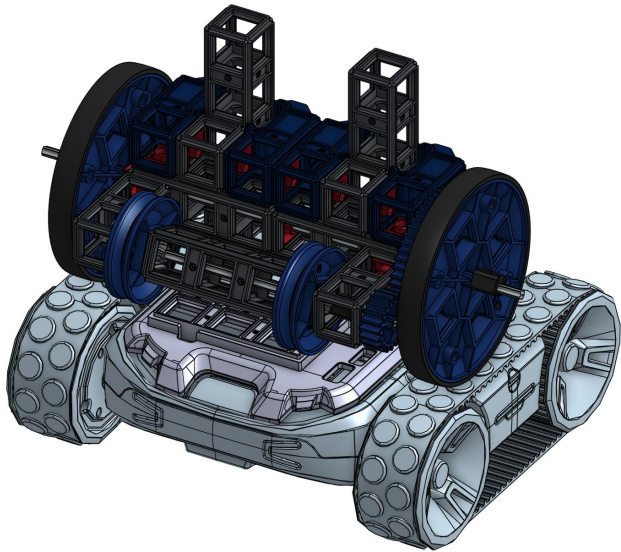
collect data from surroundings

build on it



roll with accuracy and  
precision

- Blueprint Topper Plate
- Get Blueprint builds moving w/RVR+
- Integrate Blueprint Engineer into RVR+ to fun classroom lessons for students to compete with each other



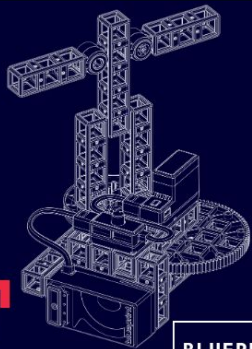


# CAD Lessons

## Blueprint Parts in Onshape

- Learn to create assemblies
- Create custom 3D printable parts

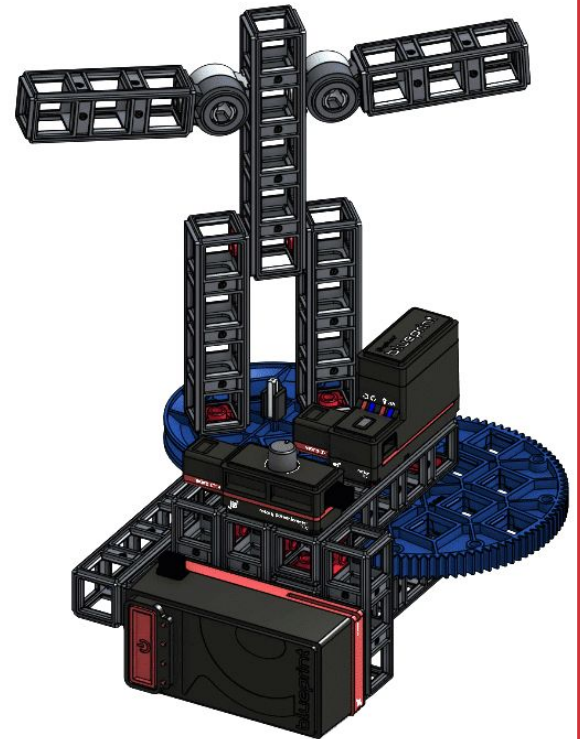
CAD Lessons



BLUEPRINTCAD

CAD Guide

3D Printing Guide



# Blueprint Robotics | Built for the Classroom

## VEX/LEGO

- Still have to build full robots
- High barrier to entry from a teacher & student skill standpoint



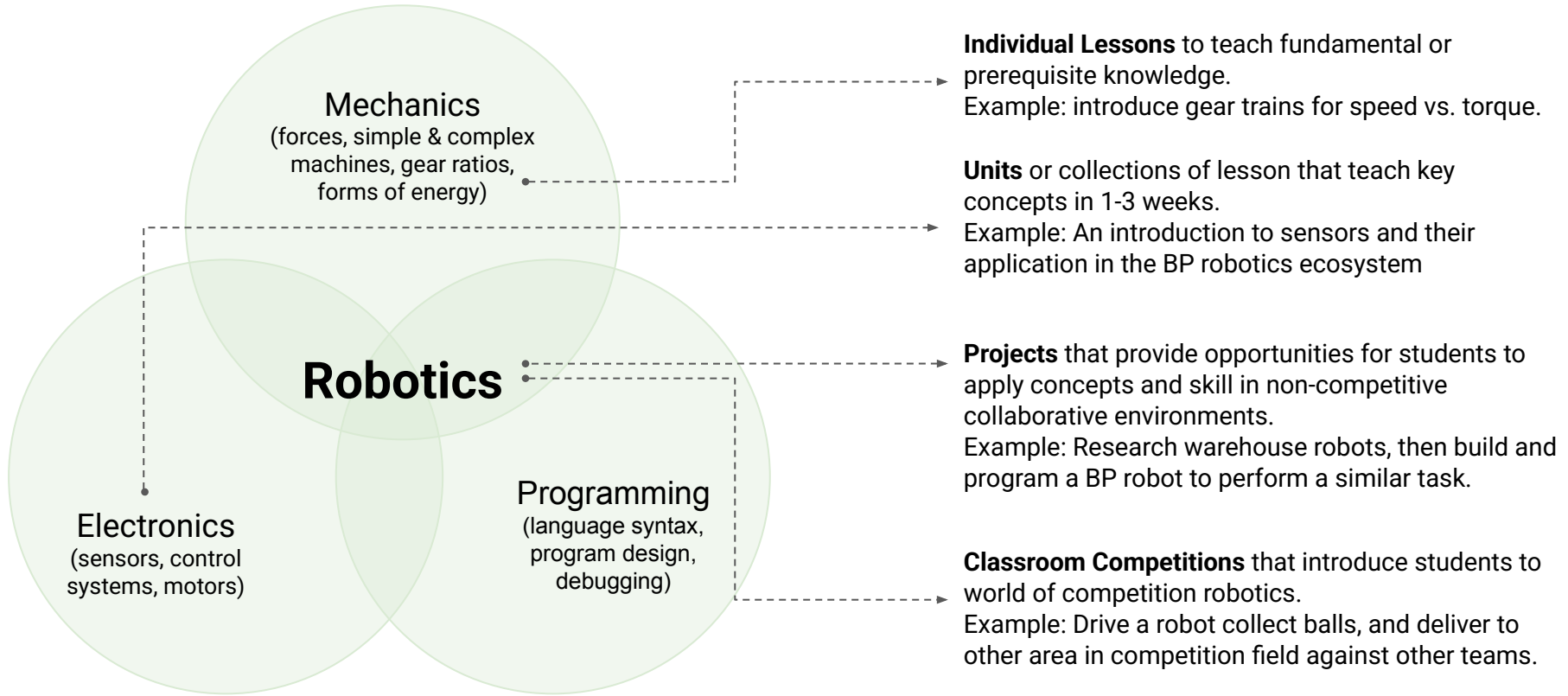
## Custom Robotics Build and Programming Options (FRC)

- Extremely high barrier to entry
- Need engineering mentor support
- Extremely expensive
- Can be intimidating to teachers and students

## Blueprint Robotics




- Schools, teachers, and students that will never be able to do options 1 or 2
- There are a lot of options for young students with no robotics experience (FLL, VEX IQ), lots of options for older students with robotics experience (FRC, VEX). BP Robotics will be the option for older students with no robotics experience

# Blueprint Robotics | Curriculum Components



# Sphero Central

<https://edu.sphero.com>

- Search for lessons 
- Filter by grade, robot 
- Find resources for all Sphero products 
- Assign lessons to classes
- Manage classes



The screenshot shows the Sphero Central website interface. At the top, the Sphero Central logo is displayed in white on a dark blue background with a wavy pattern. Below the logo, the text "Lessons, Resources, and More" is written in a light blue font. A button labeled "Looking for Sphero Edu?" with an information icon is positioned below the text. Underneath, the heading "Select your product" is centered. Four product cards are shown in a row, each with a small Sphero logo in the top left corner. The first card is for "BOLT+ RVR+ mini" and features an image of a white and red robot car. The second card is for "blueprint" and shows a complex grey and red structure. The third card is for "indi" and displays a blue and white robot car. The fourth card is for "littleBits" and illustrates various colorful modular components.

sphero central™

Lessons, Resources, and More

Looking for Sphero Edu? ⓘ

Select your product

BOLT+ RVR+ mini

blueprint

indi

littleBits

# Blueprint vs. Others

	Blueprint Engineering	LEGO SPIKE	VEX IQ	VEX EXP	VEX V5	Tetrix
<b>Cost</b>	\$449 (single kit) \$4,849 (20 students) \$7,275 (30 students)	\$399 \$8353 (30 Students)	\$479 \$5299 (20 students) \$7,949 (30 students)	\$789 \$8499 (20 students) \$12,749 (30 students)	\$812 \$4865	\$599 \$7699 (24 students)
<b>Difficulty to Assemble/Disassemble</b>	EASY	EASY	MEDIUM	HARD (Tools required)	HARD (Tools required)	HARD (Tools required)
<b>Support Curriculum</b>	7 Units 50+ lessons	12 Units 40 lessons	22 lessons	9 Lessons	14 lessons	80 hours of lessons
<b>Competition Space</b>	SGC MS \$100 entry SGC HS \$100 entry	FIRST PreK-8 \$250	Elementary Middle School \$200	None	Middle School High School \$200	FIRST High School \$295
<b>Expandability past mechanical building</b>	Full Robotics - <i>Coming Spring 2026</i>	Full Robotics with lower ceiling	Full Robotics	Full Robotics	Full Robotics	Full Robotics
<b>Free Play/Makerspace usability</b>	Usable with lower top end uses	Usable but can be time consuming	Usable, but can be time consuming	Usable for advanced students	Usable for advanced students	Usable for advanced students

Washington DC  
Onsite Competition  
February 2nd

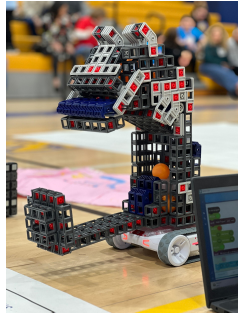


sphero

# GLOBAL CHALLENGE



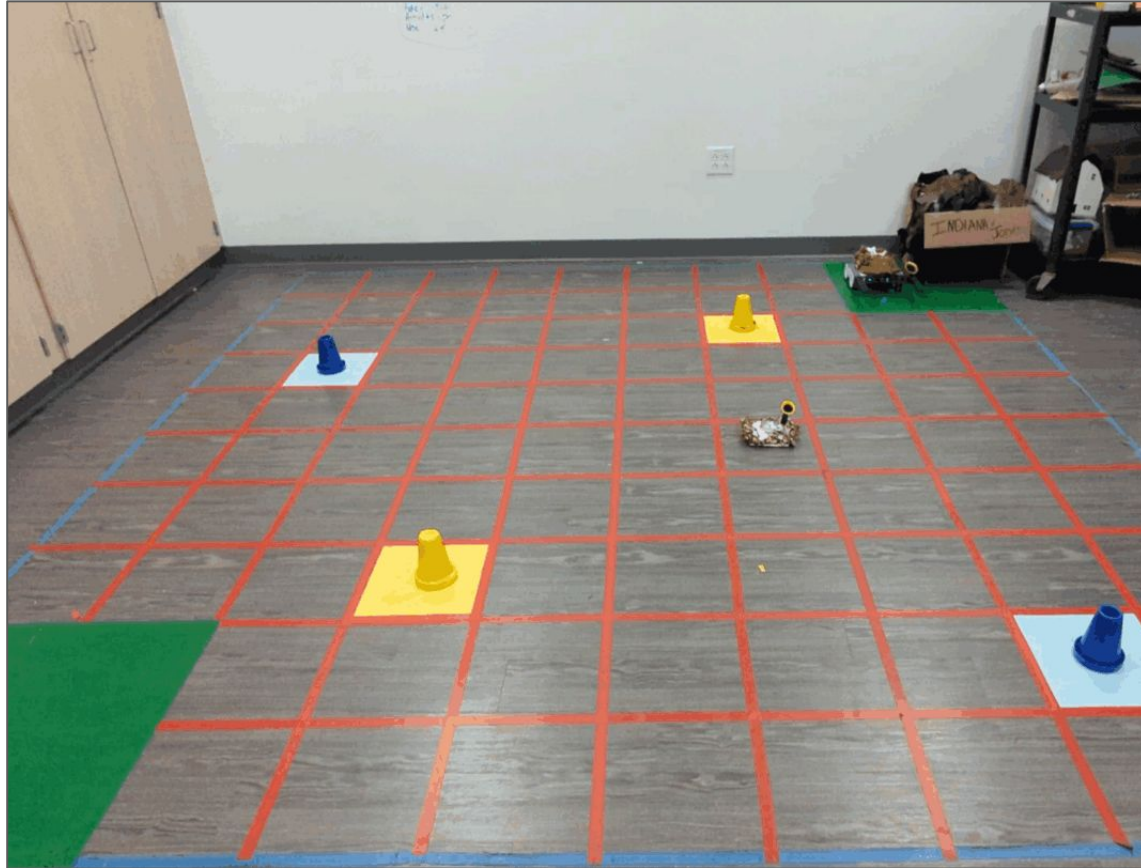
<https://sphero.com/pages/global-challenge>



## Event Reflection

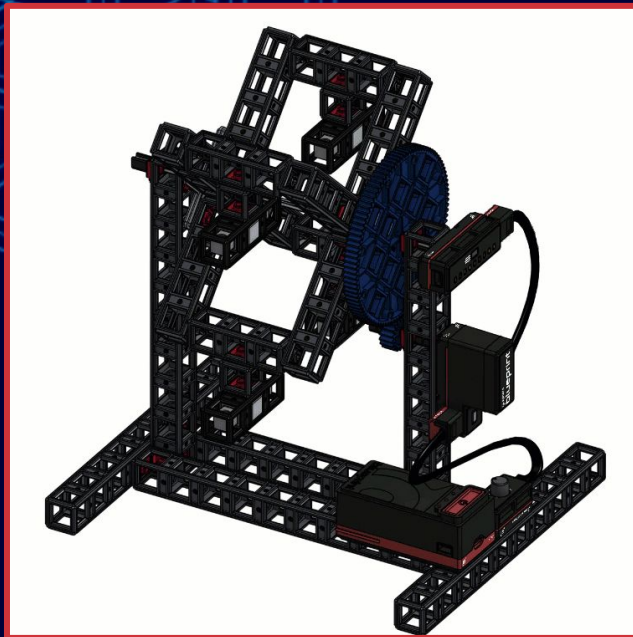
Things our team have learned:

- It is easier to work as a team than do individual jobs
- Even if we are disagreeing we still have to work together, and get the mission objective finished
- When you put everyone's ideas together, you get an outcome of an amazing idea and solutions
- When you have an disagreement, you should compromise, then result in a solution



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**Professional Development**  
**Manager**

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**Thank You**



# blueprint snap

○



## What's in the Kit

288 *Colorful Mechanical Parts*

Familiar Trusses, Plates, Connectors, Hinges, Turntables, Brackets, Lock Plates, Bearing Plates, Pulleys, Gears, Tires, Steel Shafts, and Storage Bin.

**New** Spool, better rope, Rope Anchor, Capped Shafts, Ring Tool, Cardboard Clamp

**15 Printed Challenge Cards** and **5 Digital Lessons** at launch. 10 more digital lessons by EOY.



# Snap Challenge Cards

- Guided introduction
  - Learn
  - Build
  - Explore
- Develop student fluency with Snap parts and best building practices
- Sets the stage for successful classroom integration

blueprint snap
challenge #11: winning

**parts**

8		1		3		1		2		2		1		1	
Connector		3x Pitch Weighted Truss		1x Pitch Truss		3x Pitch Truss		5x Pitch Truss		10x Pitch Truss		0.5m Rope		6x Pitch Shaft	

**learn**

The Spool makes pulling things with rope easy. Wind rope around the Spool to pull things in or lower them down.

**build**

Make a winch that can pull a weighted truss.

**explore**

+ Winches are used to help pull cars that get stuck. Could you make a winch on the front of a car you make out of Snap parts?

4		1	
1		1	
1		1	

wind rope

attach rope

blueprint snap
challenge #11: winning





		<p>Mechanical Engineering</p> <p><b>Electrical Engineering</b></p>
	<p><b>ELA, Science, Social Studies</b></p>	
	<p><b>Librarian / Media Specialists</b></p> <p><b>Makerspaces / STEM labs</b></p> <p><b>General Education</b></p>	<p><b>Intro to Engineering/STEM/CAD</b></p> <p><b>Science - Simple Machines</b></p> <p><b>Physics</b></p>