

# Sphero BOLT Summer Camp Guide

## Get ready for a summer of hands-on learning with BOLT+!

Forget Summer Brain Drain! With the Sphero BOLT Summer Camp Guide, your campers will engage in increasingly complex challenges that flex their critical thinking, creative confidence, teamwork, and coding skills. Leveraging the Sphero BOLT robot, this program presents you with all of the tools and resources needed to easily implement your camp, with clear and organized guidelines for facilitators and parents' stamps of approval.

## What's in this guide?

The Sphero BOLT Summer Camp Guide includes a suite of resources, including 30+ hours of instructional STEAM and computer science content, to make your summer camp easy to implement and engaging for campers of all ages. We know no two camps are the same, so dive into the resources below to prep and customize your camp based on your camp's goals:

- Camp Materials
- Curriculum Overview
- Sample Schedules
- Tips and Troubleshooting
- Resources



## Camp Materials

### Sphero Robots

This guide was designed for camps using [Sphero BOLT](#) and [Sphero BOLT Power Pack](#). We recommend one robot for up to three campers working together.

- BOLT is Sphero's most advanced coding robotic ball to date, providing even more ways to express inventive ideas and experience the power of programming.
- The BOLT Power Pack includes 15 Sphero BOLTs and plenty of accessories to serve up to 30 learners.
- Facilitators should have at least one extra robot for building sample inventions or lending campers extra materials.

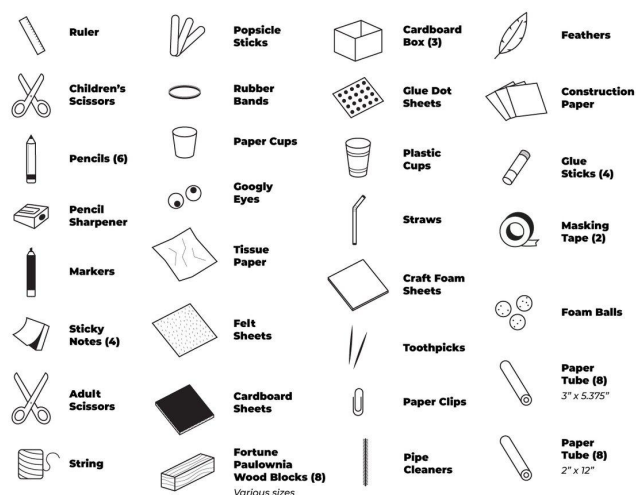
### Sphero Edu App and Devices

All BOLT robots must be paired via bluetooth with the Sphero Edu app on an accompanying device. The Sphero Edu platform works on mobile devices and Chromebooks with our mobile app for iOS, Android, or Fire OS, or on laptops or desktops with our Windows or Mac app. Download the app and learn more about device compatibility here: <https://edu.sphero.com/d>

### Extension Materials

Creativity soars when campers combine their programmed robots with other physical camp materials. We recommend having an assortment of building and design materials on hand for campers to use to augment their programming.

We offer the [Sphero Craft Pack](#) which includes the materials below:





## Curriculum Overview

Your Sphero BOLT summer camp curriculum is divided into four sections:

1. Introduction to Sphero and Programming
2. Design Engineering Challenges
3. Art Exploration
4. Cybesecurity
5. Competitions

Choose from the activity options below to craft your implementation. If you would like to expand beyond the provided curriculum, browse additional lessons at <https://edu.sphero.com/cwists/category>.

### 1. Introduction to Sphero and Programming

These lessons familiarize campers with their BOLT robots and programming in the Sphero Edu app. Each introductory activity can be completed in 1 hour, but extended challenges could become longer projects

- [Introduction to Sphero Edu](#)
- [Draw 1: Shapes](#) - Draw
- [BOLT Blocks 1: Roll Block Squares](#) - Beginning Block
- [BOLT Blocks 2: Light and Sound Stories](#) - Beginning Block
- [BOLT Blocks 3: Matrix Emotions](#) - Beginning Block
- [BOLT Blocks 4: On Collision Event Pong](#) - Intermediate Block
- [BOLT Blocks 5: If Then Animal Toss](#) - Intermediate Block
- [BOLT Blocks 6: Sensor Storytelling Sidekick](#) - Intermediate Block
- [BOLT Blocks 7: Flashlight Function Tug-o-war](#) - Advanced Block
- [BOLT Blocks 8: Hot BOLTatoes and Variables](#) - Advanced Block

### 2. Design Engineering Challenges

Challenges include step-by-step instructions for designing contraptions and programming using your BOLT robot. Each activity can be completed in 1 hour, or extended with extra challenges.

- [Bridge Challenge](#) - Beginning Block
- [Long Jump](#) - Beginning Block
- [Chariot Challenge](#) - Intermediate Block
- [Hydro-Hypothesis](#) - Intermediate Block
- [Tractor Pull](#) - Intermediate Block
- [Maze Mayhem](#) - Intermediate Block

*If your campers have prior experience with BOLT, or prefer more of a challenge, put the instructions aside and create design challenge prompts (such as "Design a dance floor and program your BOLT to dance to a song") to turn the activity into a more open-ended experience.*

### 3. Art Exploration

Art challenges provide a prompt that campers can address in a variety of ways using BOLT and other materials. Iteration and design are key elements in these activities. These challenges can be completed in 1-2 hours. Additional remixes can extend the activity. Depending on how deeply you want to engage in the material, you may choose to break up your lesson into a few sessions.

- [Holographic Projections](#) - Beginning Block
- [Art for Social Justice](#) - Beginning Block
- [Light Painting](#) - Intermediate Block
- [Spherographs](#) - Intermediate Block
- [Avoid the Minotaur](#) - Advanced Block
- [What a Character](#) - Advanced Block

### 4. Cybesecurity

Sphero's free award-winning lessons were developed to make it easy to teach cybersecurity principles to students. They make a fantastic starting point for a camp that brings cybersecurity to life and engages campers in the world of computer security and cyber ethics. Get started with our [educator guide](#) or one of the lessons below:

- [The Ethics of Computing: Right vs. Wrong](#)
- [Don't Be a Bully: Stopping Cyberbullying](#)
- [Intro to Cryptography: Pigpen Cipher](#)

### 5. Competitions

Past seasons of the Sphero Global Challenge make for fun, team-based camp competitions. Each season is archived on the Sphero website.

The materials for Season 1, BOLT Space Mission, are available for free and include the following materials:

- [Official Rules](#)
- [Evaluation Rubric](#)
- [BOLT Space Mission Coaching Guide](#)



The materials for subsequent seasons are available for a small fee.

## Sample Schedules

Sample 10, 20 and 30-hour schedules are provided below. Use them for planning purposes and adapt to meet the needs of your campers.

### 10 HOURS

- Intro to Sphero Edu, Draw 1, Blocks 1-3 (4 Hours)
- Bridge Challenge (2 Hour)
- Art for Social Justice (2 Hour)
- What a Character (2 Hour)

### 20 HOURS

- Intro to Sphero Edu, Draw 1, Blocks 1-3 (4 Hours)
- Bridge Challenge (1 Hour)
- Chariot Challenge (1 Hour)
- Tractor Pull (2 Hours)
- Maze Mayhem (1 Hour)
- Art for Social Justice (2 Hours)
- Spherographs (2 Hours)
- BOLT Space Mission Mission Objective #1 and #2 (6 Hours)

### 30 HOURS

- Intro to Sphero Edu, Draw 1, Blocks 1-8 (8 Hours)
- Bridge Challenge (2 Hours)
- Long Jump (2 Hours)
- Art for Social Justice (2 Hours)
- Light Painting (2 Hours)
- Avoid the Minotaur (2 Hours)
- The Ethics of Computing: Right vs. Wrong (1 Hour)
- Don't Be a Bully: Stopping Cyberbullying (1 Hour)
- Intro to Cryptography: Pigpen Cipher (1 Hour)
- BOLT Space Mission Mission Objective #1-3 (9 Hours)

## Tips & Troubleshooting

### Create an Educator Account

Sign up for Sphero Edu with an educator account to create and manage classes, assign activities, and monitor camper progress.

### Assign Class Codes

Simply enter a Class Name (you could name it by camp session groups) and the class code will generate automatically. Give campers the class code to access their assignments and continue working on their programs. However, note that student progress is saved to the class rather than an account. This means that work cannot transfer from class to class, no personal data is saved, and students cannot publicly share their programs, or access community programs.

Learn more here: <https://support.sphero.com/article/p5sgii6u8-sphero-edu-class-codes>.

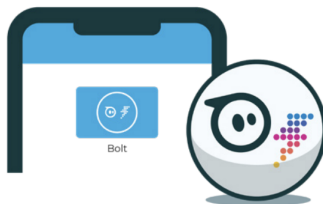
### Connect with Bluetooth

When you are ready to connect your BOLT robot, open the Sphero Edu app on a compatible mobile device with bluetooth on and sign in to your account.

From the home screen, select 'Connect Robot'



Hold your robot right next to the device



Select BOLT as your robot type and look for the robot with the strongest bluetooth signal.

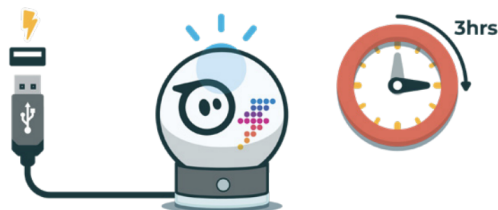
*If you are having connection troubles, try the following strategies: If the robot does not connect to Sphero Edu, charge your robot for 15 seconds to ensure it's not in deep sleep, then try again. If your robot is disconnecting often and you are in a room with a lot of users, try turning off wifi and bluetooth on the devices that are not being used with a robot. Limiting a room to about 20 robots and programming devices or less is a good rule of thumb.*



## Charge Robots

BOLT robots charge via inductive charging in the provided cradle. Each cradle is powered through the provided micro-USB cable and a dedicated AC wall plug. The BOLT Power Pack lets you charge, store, and carry 15 BOLT robots simultaneously. Built with an integrated cooling system, your robots can charge safely all from one place.

To charge, place your BOLT on the charging cradle heavy side down. You'll see a blue light blinking on the cradle to indicate it is charging. Ensure campers know how to place their robots in the cradle for charging.



## Storing and Labeling

Number your BOLT with a label maker or permanent marker. Also consider numbering the chargers and/or case to make for easy matching during clean-up.

If you don't have a BOLT Power Pack, carts and powerstrips may help with storage, charging, and organization.

## Care and Maintenance

Sphero BOLT is shockproof and waterproof, but BOLT risks being cracked if dropped from a distance of more than 36 inches (3 feet, .9 meters) above the ground.

## When in doubt, contact us!

Our team of specialists is ready and waiting to help you out Monday through Thursday from 8am - 5pm MST. [support@sphero.com](mailto:support@sphero.com)

## Supplemental Resources

Access more resources to support your camp with BOLT on our BOLT product page.

Sphero is empowering the future creators of tomorrow and setting them up for success. We couldn't be more excited about the future of education and the part we're playing. For more information about Sphero and to get involved in our community you can find links to additional resources below.

- **Sphero Blog:** <https://sphero.com/blogs/news>
- **Support:** <https://support.sphero.com>
- **Contact Us:** <https://sphero.com/pages/contact-us>
- **Brand Assets:** <https://brandfolder.com/spheroedu>
- **Facebook:** <https://www.facebook.com/GoSphero>
- **Twitter:** <https://twitter.com/spheroedu>
- **Instagram:** <https://www.instagram.com/sphero>