SOCIALLY DISTANCED

LEARNING WITH SPHERO

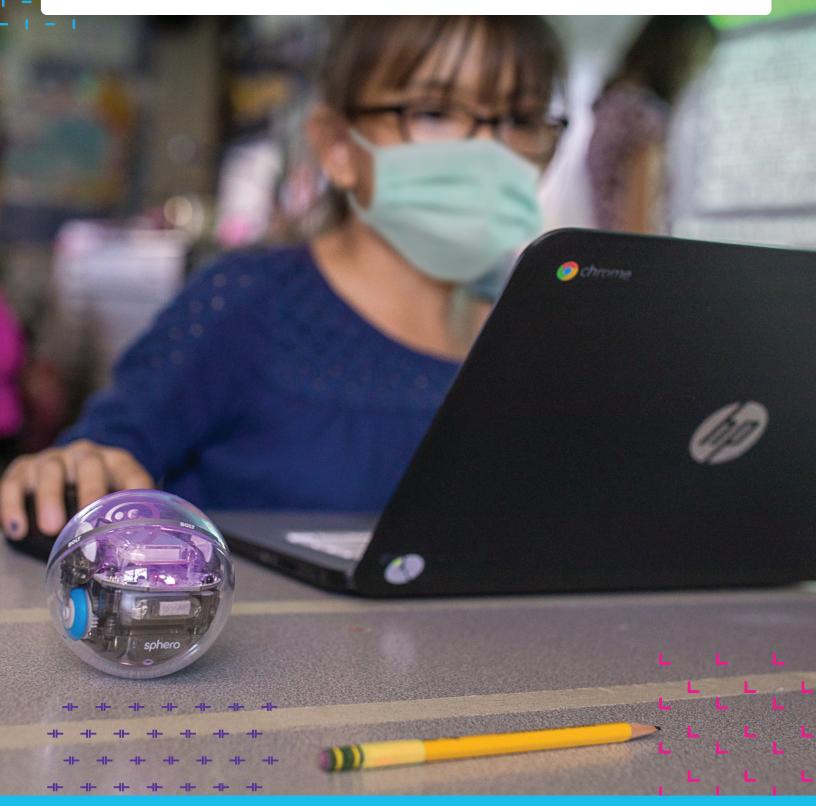


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Introduction

Sphero makes remarkably-cool, programmable robots and educational tools that transform the way kids learn, create, and invent through coding, science, music, and the arts. The Sphero ecosystem of tools and content gives kids, teachers, and parents of all learning and coding abilities a blank canvas to solve challenges in the classroom and beyond.

We understand that teaching and learning will look different this school year and we're here to help. We want to support our community with access to quality educational content and resources whether you're just getting started with Sphero, or looking to continue the fun.

The skills students unlock through coding and inventing prepare them to thrive, no matter what subject or career they pursue. Sphero tools help bring math, science, and art lessons off the pages of a textbook and into real-world applications. So regardless of your social distancing measures, we've got brand new tips, tricks, and activities to support your students.

Sphero classroom management in a socially distanced learning environment

While there is no precedent for a socially distanced learning environment, Sphero has put together some tips and tricks to keep students engaged, focused, and learning new skills safely and effectively in this new context. Whether students are programming RVR or creating with littleBits, we hope these tips help your classroom find success during this socially distanced learning journey!



 Six-foot physical distancing. Prior to beginning a Sphero activity, you can run <u>Sphero's Six Feet Apart program</u> with a robot and mark the floor with tape each time the robot stops to indicate a six foot distance. Direct each student or group to one of the marked locations.

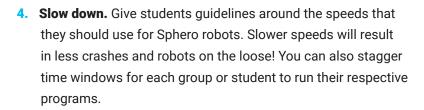


- Minimization of student contact with shared surfaces and objects. Keep robots and littleBits in designated areas of the room and have students take turns retrieving tools.
 - · Ensure robots are fully charged before getting started
 - Thoroughly sanitize products after each use by following our step-by-step guide to cleaning Sphero and littleBits products.



- Structure collaborative learning. Break students up into small groups and delegate students to distinct, rotating roles.
 Students can take turns programming the robots by connecting and disconnecting their individual devices to the robot via Bluetooth.
 - Connecting: Open the Sphero Edu app and find the 'Connect Robot' button. Hold the robot next to the programming device and select your robot type. Select your robot once it appears. If you have more than one robot nearby, the robot closest is typically the first robot in the list.
 - Disconnecting: To disconnect, students should close out of the app and allow the next student to connect.







5. Encourage collaboration through online tools. Sphero Edu activities are designed to be self-guided. Through the Sphero Edu app, you can assign an activity to an individual student, to a group of students, or to an entire class. Encourage students to collaborate through online tools such as Google Docs to communicate and share ideas. Students can also attach their program to the Gallery at the end of an activity to share it with classmates.



6. littleBits hybrid lessons. Download the littleBits Fuse app onto compatible devices. Have your students build and prototype their littleBits circuits on the app before taking turns building with the physical Bits.

Community Forum

We'd love to hear from you! What practices work best for teaching and learning with Sphero in your learning space? Be sure to share your strategies with our community!



Sphero Forum



littleBits Forum

Cleaning & Disinfecting

Let's face it, kids at school are at the top of the list when it comes to daily social interactions, making them most at risk for spreading infections. Whether we're talking about the common cold or current concern over COVID-19, there are some easy measures to help educators, students, and parents stay healthy. Below is Sphero's step-by-step guide on how to clean and properly disinfect Sphero robots and littleBits.

- 1. Make sure you have the proper cleaning products, e.g. disposable disinfecting wipes (Lysol or Clorox or similar brands are best) or spray, paper towels (if using a spray) and disposable gloves, if you are sensitive to certain cleaning products.
- With the gloves on, remove the robots from their chargers, including Power Packs, and place them on a surface to be cleaned

3. Wipe down the robot's outer surfaces, anything that hands have touched.

- 4. Allow the robots to dry completely before placing them back on their chargers, making sure they unplugged to any power sources.
- 5. While unplugged, wipe down the handles, cords, and other touchable surfaces on the Power Packs or other storage containers. When dry, you can plug everything back in to charge up.
- 6. Wipe down the surface where the robots and Bits were placed for cleaning on with a fresh wipe to finish the disinfection process.
- Lastly, remove and toss your disposable gloves (if you used them) and wash

your hands with soap and warm water for at least 20 seconds.



Tips for cleaning specific Sphero products are on the next page.



For BOLT and SPRK+, wipe and spray away!

There are no charging ports or openings
to worry about, making these two bots
completely waterproof. Just be sure not to
use harsh solvents or anything abrasive or
sharp to clean them. DO NOT submerge or
spray water on the Power Pack. The robots
are waterproof, but the Power Pack is not.



For Power Packs, be sure to unplug, wipe down the handles, cords, and other touchable surfaces or other storage containers with a disposable disinfecting wipe. When dry, you can plug everything back in to charge up.



For Minis, the outer shell should be removed and wiped inside and out, allowed to dry and placed back on the inner robot ball. You can also wipe down the inside, but make sure no liquid gets inside the charging port or other openings.



For RVR, be sure to wipe down the roll cages, dev plates and any other shared accessories your class may use to build on top of RVR.



For littleBits, make sure they are disconnected from the power source and wipe down with a disinfecting wipe, allow to dry and store back in their cases. We don't recommend a spray for littleBits as too much liquid could get into the tiny openings/connections.

It's also recommended to clean shared tablets, keyboards and other electronics used during Sphero lessons. However, we suggest following the manufacturer's specific instructions for cleaning those devices.

While it may seem like several steps, it can be built into the end of class and divided up among students to make it a smooth and efficient process. By making sure your Sphero robots and littleBits are clean, you can help promote hygienic habits and stop the spread of disease. Here's to staying hands-on and healthy!

Please note: Sphero doesn't make any representations or warranties that these steps will kill COVID-19 or any other virus, or prevent the spread of any disease. Please follow all recommended guidelines of the CDC and your medical professional.



Take your skills #BeyondCode with the Sphero Edu app

Sphero Edu is your hub to create, contribute, and learn through unique STEAM activities. From simple draw programming and drive commands to making your own block-based or JavaScript code, Sphero Edu focuses on learner progression. Accessible from almost any smart device or computer, you can program your robots anytime, anywhere.

Lessons & Activities

Sphero has created 100+ standards-aligned STEAM and Computer Science lessons and activities that can be teacher-led or self-guided so discovery and learning can continue beyond the classroom. The activities are designed for all ages and skill levels so students can grow with them. As an educator, you can explore and find the right lesson for your classroom.

In addition to the Sphero created resources and lessons, Sphero Edu provides an ecosystem for it's a thriving community of over 3 million coders, makers, and learners who create and share inspiring content every day. Find one of the 30,000+ lessons that has been used in a classroom in your own location or somewhere else in the world.



Programming

Learn to program like a pro. Designed for learner progression, the Sphero Edu app allows you to program your robot three different ways.



Draw: Beginners can draw paths for their robot to follow



Block: Intermediate programmers can drag and drop blocks



Text: Pros can write text programs using JavaScript.

Create your own program or experiment with one created by Sphero or another star educator.



Educator & Student Accounts

Sphero Edu has various user options to fit your needs.

- Educator and Student accounts: Assign activities and track progress
- New! Class Code: Distribute Class Codes to allow students to work on assignments without a username and password.
- Sphero Edu Getting Started Basics

Coming Soon



littleBits Fuse App

Expand upon what your inventions can do using the littleBits Fuse app to program your Bits using conditionals, loops, and functions.

See how the Bits fit together in the virtual circuit builder to see what you can create with or without owning all the Bits. Designed for learner progression, program using blocks or JavaScript, all you need is a Code bit.

Coming Soon





littleBits Classroom

Similar to Sphero Edu, littleBits Classroom is an online hub of littleBits lesson plans, educator guides, STEAM activities, troubleshooting tips, and customizable handouts for different grades, subjects, and learning pathways. It offers teachers an opportunity to easily source lesson plans and activities aligned to state and national standards to create an engaging experience for students.

Lessons & Inventions

littleBits Classroom has been designed in a modular fashion, just like littleBits, to create lessons, inventions, and activities to meet the needs of your students. You can start by selecting the kit or Bits you already have and find a lesson plan designed by Sphero littleBits experts. You can also search by standard, subject area, or explore the inventions we have created.

In addition to all of the resources we provide, you can search the hundreds of lessons and unit plans or explore the millions of inventions that have been made by educators and students alike. Get inspired by the littleBits invention cycle and post what you or your students create!

New Activities for Learning Anywhere

Sphero has brand new activity content that supports programming and creating in a socially distanced learning environment. Students will use Sphero BOLT, RVR, and littleBits to engage in six activities focused on CDC guidelines for health, safety, and well-being. The content also includes tips for Sphero classroom management in a socially distanced classroom.

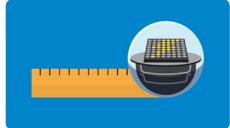
Activities for a Socially Distanced Classroom



The Masked Sphero

Learn how cloth face coverings can protect against germs! Use BOLT's light sensor and a handmade mask to demonstrate how filtering inputs can help slow the spread of germ transmission.





Keep Your Distance!

Two Feet? Four Feet? No, Six Feet!
Chances are you've heard about the guidance from the Center for Disease Control (CDC). In this activity, you will turn BOLT into your own yardstick to help make social distancing easier.



Supply Transporter

Taking care of others is a powerful way to build compassion and support your community, especially in times of stress. Let's program RVR using the color sensor to transport supplies to other groups!

littleBits Activities



Hand Washing Timer

In this activity, students will use littleBits to invent their own hand washing countdown.



Non-Contact Handshake

In this activity, students will use littleBits to invent their own non-contact handshake.



Invent a Face-touching Deflector!

In this activity, students will use littleBits to invent their own hand face-touching deflector.

Activities for Learning at Home

Check out these Sphero and littleBits activity favorites to continue STEAM learning at home.



Spherograph

Create your very own Spherograph (Spirograph) by looping polygons together in a program.



Sphero Activities

Sphero Long Jump

Create a program for Sphero to long jump and adjust variables to reach the longest jump distance.



Retro Games

Explore three classic games and learn how they can be programmed using the Sphero Edu app.

littleBits Activities



Invent for Good

Invent a product that improves the life of someone else.



Hack your Habits

Create an invention that tracks, and improves, a daily habit.



Invent a Throwing Arm

Use your imagination and problem-solving abilities to create games related to use of the throwing arm.

Check-out & Lending Programs

During a time with blended learning you might consider developing a check-out program for your school's Sphero products. Below you'll find suggestions on how to provide Sphero products for students to check out for use at home on a temporary basis to support instructional activities.

How could this work?

- Keep it organized! Use Sphero storage containers, plastic containers, or backpacks.
- Make sure that Sphero and littleBits kits are clearly labeled. Consider adding a list of contents to each kit.
- · Use Google Forms as a way for students to request kits.
- Consider using Google Sheets or Excel to keep track of student requests and equipment that is checked out.
- Think about having "drop off/pick up" hours that have been communicated to families in advance. A designated time and location can help with contactless pickup/drop off.
- Consider having students/families sign an agreement about caring for technology (many school districts already keep a technology form on file).
- Let kids have the kits long enough that they can explore and create, while also being sustainable for teachers managing pick up/drop off (1-2 weeks per student).
- Consider adding 1-2 line activity suggestions or laminated activity cards into your Sphero/ littleBits kits and STEAM related books!

Family communication

- Create, print, and laminate a one pager that contains cleaning, sanitizing, and care instructions to include with Sphero products that are going home.
- Post care instructions on the school website or app.
- Consider including important links (Sphero Edu, activities) or even a QR code on the one pager, website, or app as well.



Power Pack Disassembling

BOLT Power Packs can be separated into individual BOLTs and BOLT charging cradles, allowing you to send individual robots home with students. BOLT has a clear, waterproof, scratch-resistant shell that is sealed and does not open which makes it ideal for checkout and lending programs.



Located at the base of each charging cradle inside the Power Pack is a thumb tab. Gently press down on the tab to release the charging cradle.



Gently remove the micro USB cord from the charging cradle before removing it from the Power Pack.



Be sure to set the micro USB cord back so that it doesn't fall underneath the cradle platform. Do not attempt to remove the micro USB cable from the Power Pack.



You will need additional micro USB cables and USB wall adapters for each charging cradle.

Showcasing student work

- Have students create and share programs in the Sphero Edu app.
- Have students record a video of their invention or program consider using Flipgrid so that other students can comment on the video!
- Schedule a Google Meet or Zoom meeting so that students can show their work and receive feedback in real time.
- Have students write a "how to" guide for their invention or program. Place it somewhere
 where other students can view and use. For example, create a Google Site or place in
 Classroom.
- For older students, consider using social media platforms, such as Instagram, Tik Tok, or Snapchat to showcase their work!

1 Year Limited Warranty

Sphero warrants the Physical Product, and only the Physical Product, against defects in materials and workmanship under normal use for a period of 1 year from the date of retail purchase by the original purchaser. You also have the option to add an extended Spherocare warranty so you can explore, play, and learn with reckless abandon!

Learn More

Additional Resources

Sphero Website

Learn more about all of Sphero's offerings and teacher resources.

Whitepapers

Our library of insightful whitepapers, teacher guides and case studies is designed with educators in mind. We regularly publish original content here to inform and educate on the importance and power of STEM education. Sign up to receive all of our available whitepapers, download the ones that interest you most, and be the first to learn when new articles are published.

Webinars

We regularly offer free webinars for our community to participate in lively discussions, and find helpful STEM resources and strategies on the learning and teaching topics you care about most. Check out some of our recent pre-recorded webinars or sign up to our email list to be notified about upcoming webinars and other exciting news.

Blog

Our blog offers timely information to keep you up-to-date on the latest Sphero news, product and app updates, industry insights, and provides resources for learning in the classroom or at home.

Professional Development

The learning doesn't stop, even if you're a teacher. Get empowered with strategies for success with our professional development offerings.

The Sphero Community

The Sphero community is a growing group of over 2 million makers, teachers, and learners of all ages who are constantly creating, contributing, and sharing inspiring content, programs, and activities in the classroom and beyond.

Closing

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. During a time of uncertainty and change Sphero is committed to helping teachers adapt to new ways of teaching and kids learning no matter where that is or what it looks like.

Questions?

education@sphero.com

Contact a Rep

Looking to learn more about how to return to school safely with Sphero in a socially distanced classroom? **Contact a Sphero Specialist.**