sphere ()

Fostering a passion to learn STEAM skills through football, coding and play!

The Sphero Mission

Sphero makes undeniably cool, programmable robots and STEAM-based educational tools that transform the way kids learn, create, and invent through coding, science, music, and the arts.

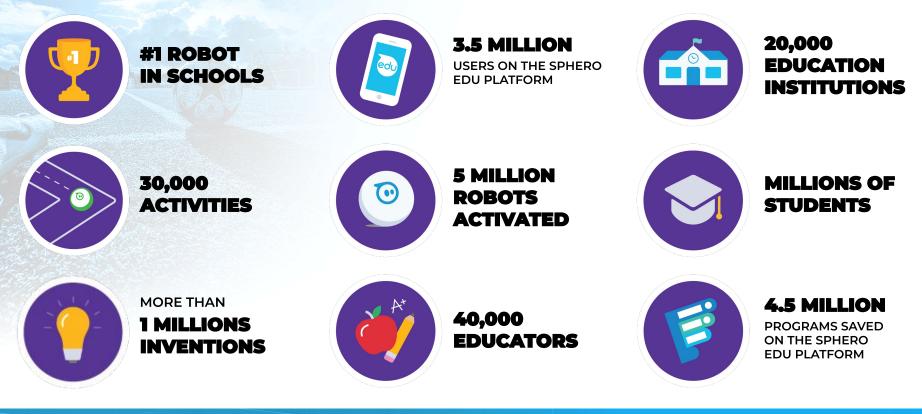
Sphero goes #BeyondCode and drives kids to turn their imagination into reality. The skills students unlock through play-based learning prepare them to thrive, no matter what subject or career they pursue.

Based in Boulder, CO, Sphero has become the #1 STEAM-based learning solutions company, loved by millions of kids, educators, and parents worldwide.



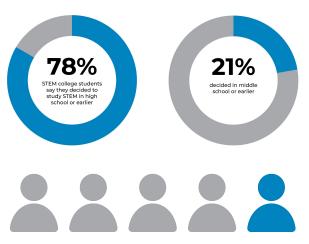


Sphero Stats





The Need for STEM Skills



Yet, only 1 in 5 of all STEM college students feel that their K–12 education prepared them extremely well for their college courses in STEM.

The U.S. needs 1 million more STEM professionals over the next decade than it is projected to produce at the current rate.



"Everybody in this country should learn how to program a computer... because it teaches you how to think." - Steve Jobs

Over 50 percent of the fastest growing jobs in the U.S. are math, science or technology related.

Sphero Edu in 60 Seconds



Do You Know Women Inventors?



We Need More - Verizon Innovative Learning





THE SPHERO APPROACH

SPHERO'S COLLECTION OF ROBOTS, EDUCATIONAL TOOLS, AND STEAM ACTIVITIES WORK TO INSPIRE A NEW GENERATION BY USING HANDS-ON, APPLIED LEARNING TO TEACH VALUABLE STEAM PRINCIPLES.





Introducing Sphero Sports



- Football & STEAM learning via hands-on, football-based coding activities
- Developing critical 21st century skills via coding and play
- Student engagement from all backgrounds in the game of football
- STEAM learning through a sport they already know and love
- Provides the perfect start in teaching STEAM Education





WHAT'S INCLUDED IN THE SPHERO SPORTS PACKAGE?



Sphero Sports Football Activities

- 20+ fun football activities via the Sphero Edu app
- 3 Learning Levels; Academy, First Team Training & Match Day
- Passing, Dribbling & Shooting Activities
- Aligned with computer science and football fundamentals
- Easy access for all skill levels with no prior coding experience necessary
- Free play via on pitch creativity and invention with the Sphero Sports Code Mat





ACADEMY - DRIBBLING 2: DRIBBLE UP THE WING

Vorve on the half way line and you see a teammate across on the other side of the pitch. You'll need to programme BOLT at speed to reach your team mate, who can then pass off to another teammate down the wing. But watch out One of you will need to do some cool turns to avoid losing possession of the ball before assign on. KEY STACES were assigned to prove the ball of the passing on the ball of the ball before assign on the ball of the pitch of the ball before assign on the ball the ball before

OUTCOMES

I can test out and edit a programme for a specific goal.



SETUP

Roll out the large Sphero Football mat. Place BOLT on the line where the centre and side lines meet. Place a cone opposite BOLT on the other end of the centre line. And place one more cone in the corner on the same side as the first cone.

2 SKILLS BUILDING

Open the Sphero Edu app. Create a new programme. Take a look at the Movement blocks. Have you tried any other movement blocks other than the roll block?





There's your teammate across the pitch. Hurry and get them the ball!

For an extra challenge, programme BOLT to spin opposite the direction it spun when you ran your programme. For an extra EXTRA challenge, programme BOLT to spin both ways before heading up

Design a programme that will move BOLT from its starting point to he first cone across from it on

the centre line. BOLT must be moving with pace (speed must be 150 or more). Before passing

Test this several times. Try different speeds and durations until you find the perfect combination.

Place a spin block into your programme. Experiment with the two parameters that

Test this several times. Try different speeds and durations until you find the perfect

How does rotation affect how BOLT spins?

How does duration affect how BOLT spins?

How can you program BOLT to spin clockwise? anticlockwise?

you are able to set: rotation (*) and duration (s).

CHALLENGE

combination.

TEAM TRAINING - DRIBBLING 3: GOING SOLO

Dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the 1st Cone where a Player is positioned. After dribble from the starting point with the ball to the ball to the 2nd, 3rd, 4th, 5th & 6th Player. Then with a Current dribble from the starting point with the ball to the 2nd, 3rd, 4th, 5th & 6th Player. Then with a Current dribble from the starting point with the ball to the 2nd, 3rd, 4th, 5th & 6th Player. Then with a Current dribble from the starting point with the ball to the 2nd, 3rd, 4th, 5th & 6th Player. Then with a Current dribble from the starting point dribble from the 2nd, 3rd, 4th, 5th & 6th Player. Then with a Current dribble from the starting point dribble from the start shot at goal, put the ball into the back of the net.



I can test out and edit a programme for a specific goal.





Roll out the large Sphero Football mat. You will use half of the pitch for this practice. Layout the six cones around your half of the pitch. Place BOLT at the centre point. This will be the start position. The picture below is just an example. Whichever partner is on defence may place the cones anywhere on your half of the pitch.

2 SKILLS BUILDING

Design a programme that will move BOLT around each of the cones. You may want to plan your path on a piece of paper before beginning your program.

You must ensure that BOLT passes each cone without touching it. If at any point BOLT touches a cone, the ball has been given away.

After making its way through all the cones, take a shot at goal with BOLT. The goal only counts if BOLT stops in the goal area.

3 CHALLENGE

Compete against your partner to see who can programme the quickest and most accurate program. Take turns setting up the defenders and programming BOLT through the field. To win, you must have the quickest programme AND score a goal.

ADDED MINUTES - MOVING GOALKEEPER

A good goalkeeper keeps you in the match. While you've worked on mostly offence in NATIONAL CURRICULUM OBJECTIVES these lessons, it's time to look at the other side of the ball. Programme BOLT to defend the goal, moving back and forth, keeping your opponent out of the net





I can test out and edit a programme for a specific goal.

SETUP

Roll out the large Sphero Football mat. You will use half of the pitch for this practice. Place a cone near the left and right edges of the 18-yard box, like in the picture below. Place BOLT somewhere in between the cones. This will be the start point.

2 EXPLORATION

Do you remember programming loops in the other lessons?

As a reminder, a loop allows a programmer to repeat a sequence of code a set number of times or indefinitely. In the picture below you can see three loop blocks in the Sphero Edu app. In this practice, you will use the middle block below - the loop forever block. A good goalkeeper is always on their toes, ready for anything.



Place the blocks you want to repeat, or loop, inside of the loop forever block, and make sure the loop block is connected to on start.

SKILLS BUILDING

Design a programme that will move BOLT from side to side, between the two cones. This will help BOLT protect the goal. You get to choose the pace and the interval. Be sure to place your programme within the loop forever block.

Does your goalkeeper have what it takes?

Now take what you have looped your goalkeepers' movements, invite another group to come and take some shots at goal. Have them drive or program their BOLT. Watch how your BOLT moves.

What changes can you make to your programme to make it more difficult for your opponent to score?

5 EXTRA CHALLENGE

Find a team that is working on dribbling or shooting practice. Increase the challenge of their practice by adding your BOLT as goalkeeper.



Ball control in tight areas is vital to building a successful team that can play through the thirds. This session helps players develop their ability to pass and

Roll out the large Sphero Football mat. On one half of the pitch, layout four cones to form a square. Place BOLT in the centre of the four cones. This will be the start point.

CURRICULUM LINKS STEE Managements KEY STAGES Waters and XE2713M9 / Mathematica XE2713 GP3 SUBJECT FOCUS Method

2 SKILLS BUILDING

Design a Block programme to move BOLT to one cone and then back to the centre. Repeat this movement to each of the other three cones. Keep the movements tight and accurate.



Remember loops?

Now add a for loop block to repeat the complete programme 10 times. BOLT only has 5 minutes to complete the entire pro-

gram. This may affect the speed you may need to use. EXTRA CHALLENGE

For an extra challenge, programme a different colour to flash each time BOLT completes a nass.



OUTCOMES I can test out and edit a programme for a specific goal.

















Sphero has created over one hundred standards-aligned STEAM and Computer Science lessons and activities in the Sphero Edu App that can be teacher-led or self-guided.

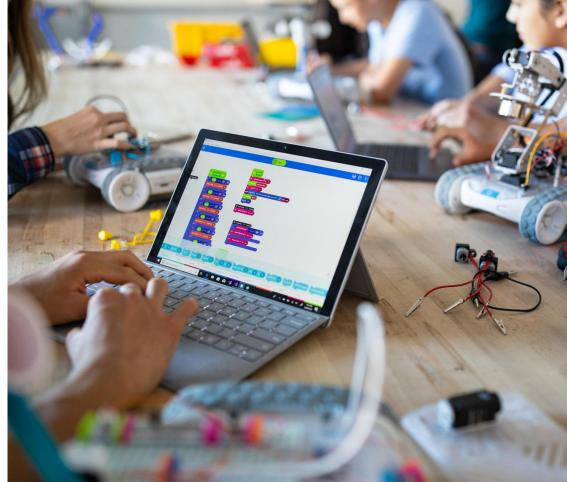
Sphero Edu also provides a community of over 3 million coders, makers, and learners who create and share inspiring content every day. Find one of the 30,000+ lessons that has been used in a classroom near you or somewhere else in the world.

Program 3 Ways

Beginners can draw paths that represent code for their robot to follow.

BLOCKS Intermediate programmers can drag and drop blocks.

TEXT Pros can write text programs using JavaScript.





Professional Learning

Get empowered with strategies for success with our Sphero Sports professional development offering.

Our one-hour virtual training session provides

- Overview of Sphero Sports
- Introduction and training of Sphero Edu app
- Implementation plan and guidance of materials
- Best practices and personal Q&A

Teams can also access Sphero Fundamentals, a 6-hour self-guided course on how to get started with Sphero Edu.





Learn to code with Sphero Sports

- A fun, real-world way to teach computational thinking and problem solving
- Sports Foundations to become a STEAM leaders within their community
- Development of technical & soft skills
- Encourages more students to pursue STEAM related fields
- Inspiration for girls & minority groups interested in STEAM subjects
- A fun way to address the subject focus of coding and mathematics





How to deliver Sphero Sports

- Sphero Sports is multi functional and can be delivered in many different ways
- Use corporate lounges/suites within the teams stadium/arena
- Delivered at schools, festivals or events
- The BOLT Power Pack includes 15 BOLT Robots for 30 students
- The Sphero Edu app is compatible across 5 operating systems

APP COMPATIBILITY







Sphero Sports in the Classroom

- First impressions
- The roll-out !
- Skill development



'I love the feeling when something works out especially when you have worked so hard to code it!' Oliver 10





Sphero Sports in the Classroom





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AVFC



THE WORLD AT YOUR FEET



Examples of Sphero Sports in Education & Sports

RGS The Grange

Incredible engagement from our pupils as we officially launch the amazing combination of sport and coding #spherosports Very proud to be the first school in the world to integrate this into our extensive computing curriculum @sphero #worcesterisgreen



8:15 AM - Sep 25, 2020 - TweetDeck

9 Retweets 4 Quote Tweets 25 Likes



PERFECT ADDITION

Newest member of the team - Sphero! Interactive orbs to help teach kids coding for ow.ly/nAPd50ChYqu

anielle.chapman@foundationoflight.co.uk if your school would like to know more about our new six week course.

#MathsWeekEngland



6:01 PM - Nov 12, 2020 - Hootsuite Inc.

2 Patwaste 6 Ousta Twaste 16 Likes

Martin Willis ADE Ommartinwillis

Great first session this morning with #SpheroSports

@MattJMead @SpheroEdu

The Edinburgh Academy @edinburghacad - Nov 2 Primary 4 started their first unit of programming this morning and are loving the new #SpheroSports curriculum from @SpheroEdu and our new football coding matt



1:35 PM - Nov 2, 2020 from Edinburgh, Scotland - Twitter for iPhone

1 Quote Tweet 5 Likes

#AVFC

11:11 AM - Oct 14, 2020 - Buffer 11 Retweets 1 Quote Tweet 27 Likes

Aston Villa Foundation 🤣

Brilliant morning of learning with Matt and Darren

new STEM Programme coming soon! 💀 🔲 🛞

@Sphero @SpheroEdu as part of our regular Tuesday

CPD development mornings, ready for the launch of our

The Harlequins Foundation @quinsfound

#RobotRugby

Today we were joined by @DeerParkSchool for a day of coding & #STEMeducation brought to life with @Harlequins & @HarlequinsWomen 😇 🕾 📿

#BuildingBrighterFutures #Coding #COYQ



2:41 PM · Dec 9, 2020 · Twitter for iPhone

1 Retweet 2 Quote Tweets 9 Likes

Deer Park School

A quick stadium tour between coding sessions! Learning how @Harlequins use STEM to gain a competitive advantage. @guinsfoundation @SpheroEdu



3 Retweets 1 Quote Tweet 19 Likes



Our exciting new STEM programme is being launched soon as part of our schools' provision!

The programme will use @Sphero robotics to teach and inspire children about new technologies. 🚍 🤔

Email paul.hughes@avfc.co.uk for more information.

#AVFC



12:30 PM - Oct 26, 2020 - Azzuu

7 Retweets 1 Quote Tweet 35 Likes

Matt Warne & EdTech

Great to launch the new @Sphero Sports curriculum today at @rgsthegrange The perfect blend of Sports and Coding which has simply blown the minds of pupils today!

#spherosports #STEM #engagement #BackToSchool



Sobero Education and 7 others 2:26 PM - Sep 8, 2020 - Twitter for iPad

14 Retweets 2 Quote Tweets 62 Likes



Schools Manager Paul Hughes tells us more about

our upcoming STEM programme, which has been funded by @millenniumpoint, 🙌

The programme will initially be available to schools in the local area around Villa Park.

To find out more, please email paul.hughes@avfc.co.uk



5 Retweets 1 Quote Tweet 15 Likes





START

Students begin their educational journey with Sphero's entry level bots, bits, and activities. Whether they are just getting started with programming and inventing or looking to grow their engineering and computational thinking skills, they'll find themselves at home within the Sphero Edu ecosystem.



GROW

Expand students' knowledge with Sphero bots and curriculum that further their engineering and programming skills. Intermediate learners can utilize advanced sensors and code blocks to learn more complex logic, enabling advanced programming tactics.



GRADUATE

Sphero offers advanced programming capabilities through the maker-hacker level including advanced blocks, JavaScript, or even our public SDK library. Seasoned programmers and engineers can utilize the diverse suite of sensors to build, customize, and connect third-party hardware.







LEARNING IS NOT A SPECTATOR SPORT, SO LET'S PLAY!



Matt Mead Head of Corporate & Sports Partnerships

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9 @MattJMead