

October 20, 2021



Welcome to iRobot Education!



Webinar Objectives

What are we going to do in the next 40 minutes?

- iRobot Education Learning Suite
- Learning Library Tour
- Family Engagement
- STEM Outreach
- Recommended Next Steps
- Questions?





iRobot™

Education



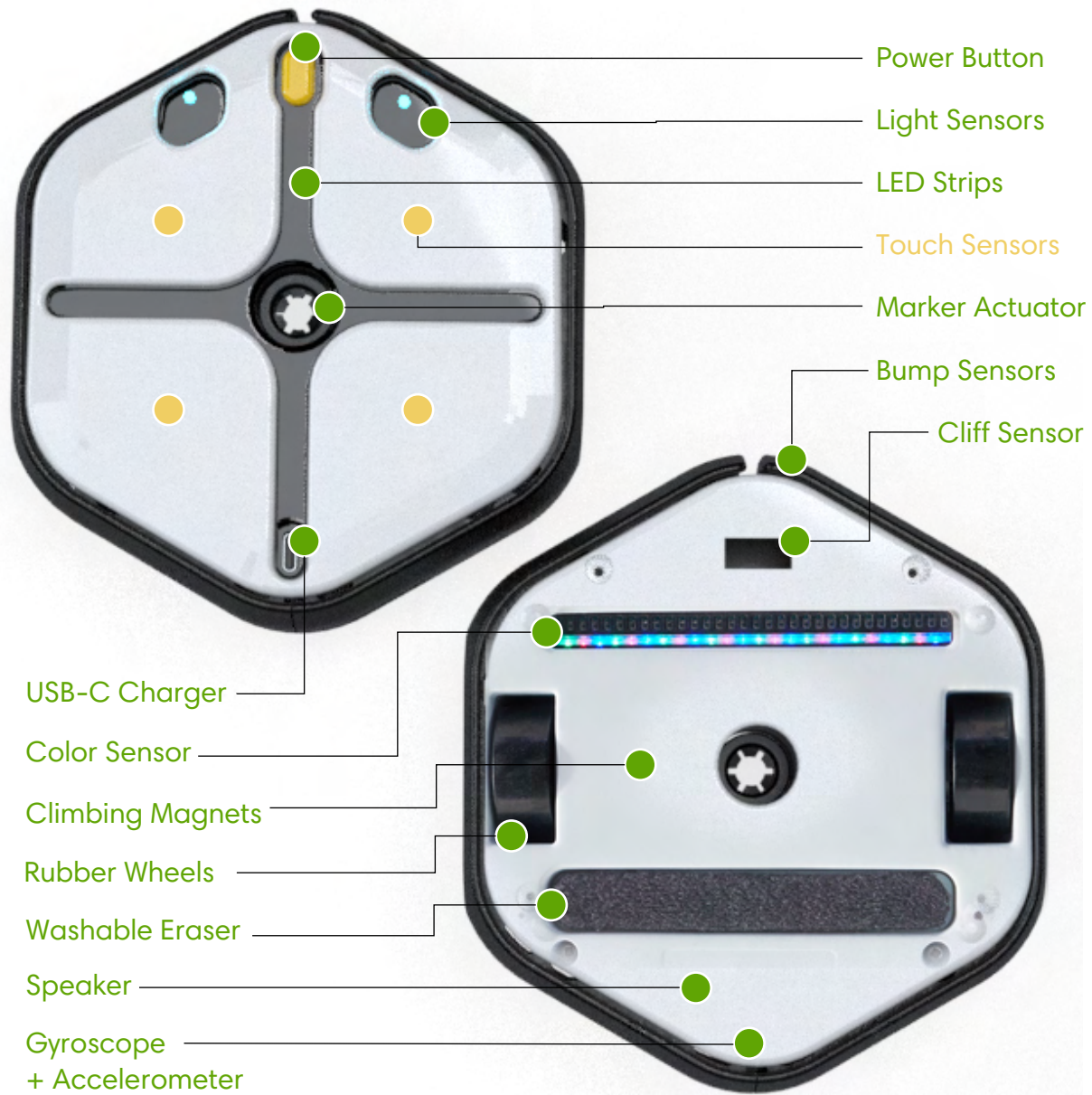


Root® rt1 Coding Robot

\$199.99

The Root® rt1 coding robot uses tangible, hands-on experiences to teach coding and strengthen computational thinking skills.





Root® rt1 Coding Robot

Tech Specs

What age(s) is the Root® coding robot designed for?
 The Root® Coding Robot is designed for pre-readers as young as age 6. For any child under the age of 6, adult help is recommended.

What operating systems is the Root® coding robot compatible with?
 The Root® Coding Robot is compatible with devices running most major, up-to-date operating systems, including Android, Chrome OS, Windows, iOS, and macOS. Users may access the iRobot® Coding platform at code.irobot.com or through the iOS Root Coding app.

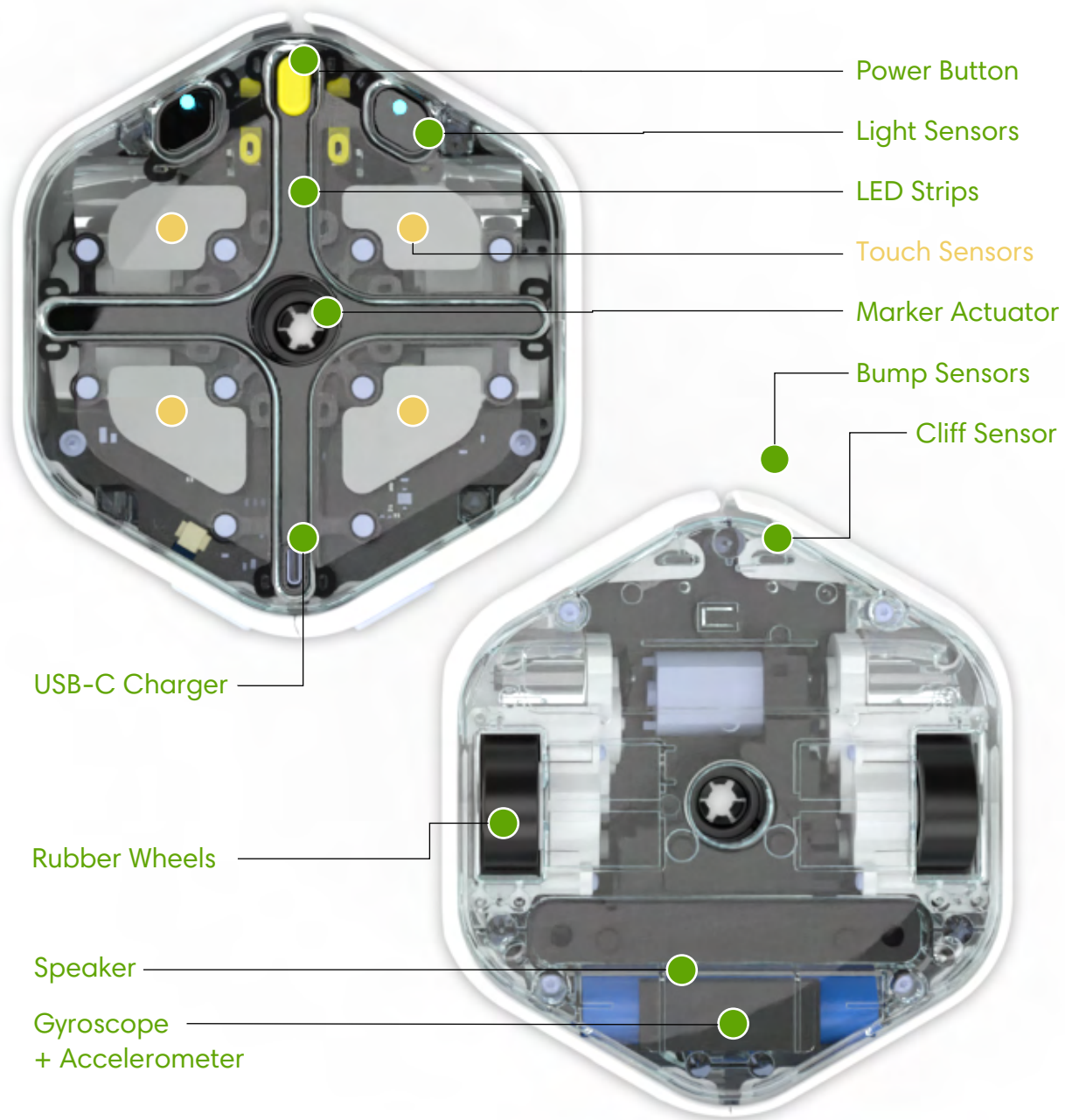


Root® rt0 Coding Robot

\$129.99

With over 20 reactive sensors and features, this smart robot appeals to children and families of all interests.



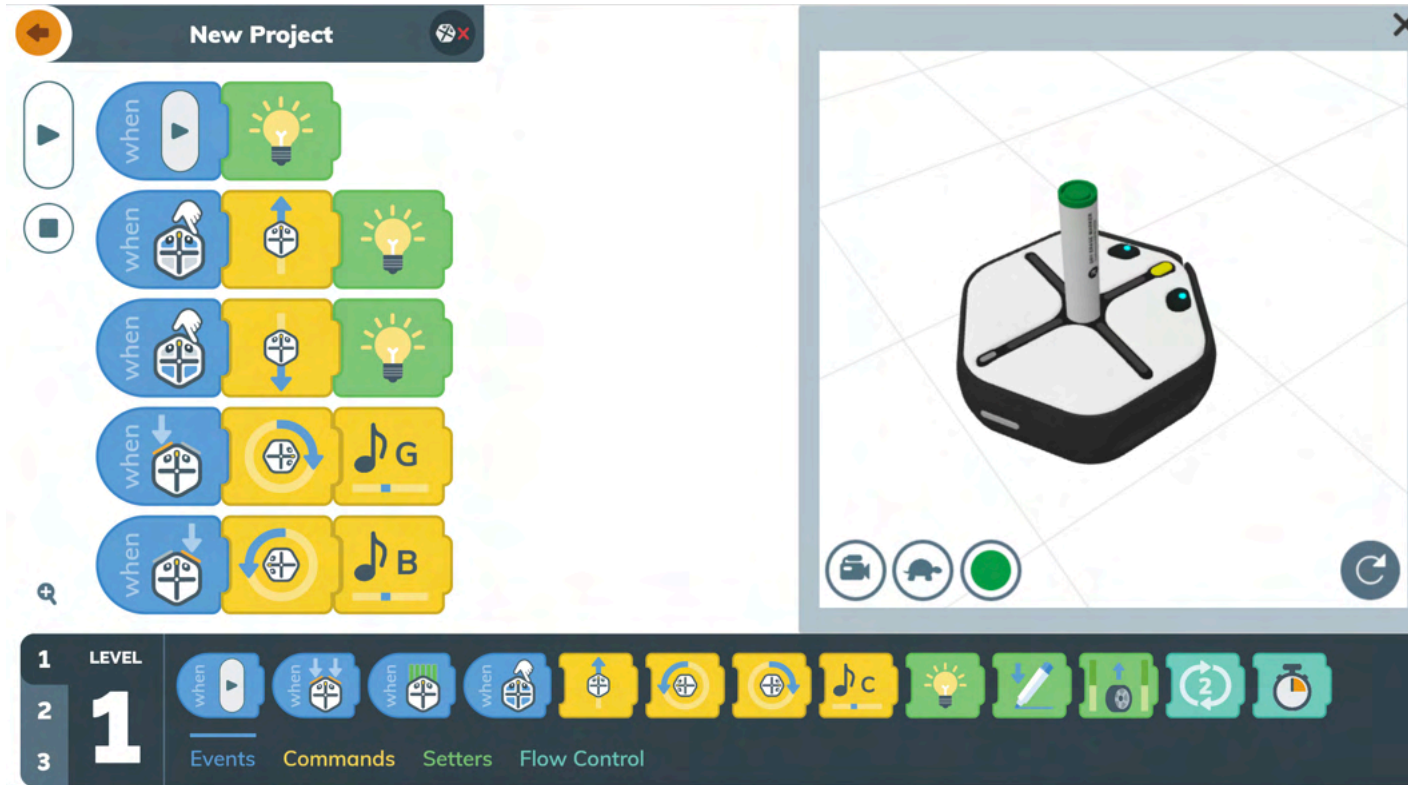


Root® rt0 Coding Robot

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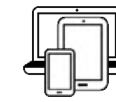
```

robot.whenProgramStarted {
  robot.markerDown ()
  for _ in 1 ... 4 {
    robot.move( 16 )
    robot.turn( right , 90 )
  }
}

```

iRobot® Coding

Free



Compatible with iOS, Chrome OS, Android OS and web-accessible browsers

Level 1: Graphical

Level 1 uses drag-and-drop, graphical blocks to teach the fundamental logic skills of coding, no reading required.

Level 2: Hybrid

Level 2 builds computational fluency with hybrid blocks that feature a mixture of graphics and coding script.

Level 3: Full-Text

Level 3 uses full-text code to teach the structure and syntax of professional coding languages in Python.



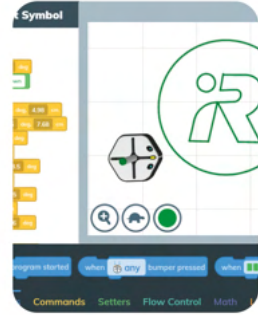


No Experience Required

Getting Started with Root®

Use these resources to get started with the Root Coding Robot!

Coding, Robotics, Science



No Experience Required

Getting Started with iRobot® Coding

Welcome to iRobot® Coding! Explore these resources to start coding in the 3D simulator, connect your robot, and manage coding projects!

Coding, Robotics, Science



Grades 1-3

Grades 3-5

Coding Communication Challenge

In this coding challenge, students will practice collaboration and communication skills in order to conquer a robot obstacle course while maintaining a safe distance.

Coding, Robotics, Social Emotional Learning



Grades 1-3

Grades 3-5

Robot Writing Challenge

In this coding challenge, students will alternate between coding with the iRobot Coding simulator and a physical Root Robot to write the first letter of their name.

Art, Coding, Math



Grades 1-3

Grades 3-5

Take Note(tation) with Baby Shark

This activity teaches students how to translate sheet music into code and play it through their SimBot or physical robot.

Art, Coding, Music, Robotics, Science



Grades 1-3

Grades 3-5

Pirate Costume for Root

Use this printable to transform your Root Robot into a pirate. Arrrrr!

Art

iRobot® Education Learning Library

Free + Premium Subscriptions

The coding adventure never ends with Root® Adventure Packs! Experience custom-curated content and unlimited learning opportunities across the world!



Getting Started with Root®

Use these resources to get started with the Root Coding Robot!

Downloads & Resources

- [iRobot Coding Tutorial](#)
- [Meet Root: Hardware](#)
- [Meet Root Printable Guide](#)
- [iRobot Coding Support Guide](#)
- [Example Project Sheet](#)
- [iRobot Symbol](#)
- [How to Upload Projects](#)
- [How to Download Projects](#)

Subjects: Coding, Robotics, Science

Duration: 5-10 minutes

Compatible Robots: Root SimBot, Root r10 Coding Robot, Root r11 Coding Robot

Group Size: Individual, Small Groups (2-4), Large Groups (5-12), Full Classroom (20+)

Experience Level: No Experience Required

Things You'll Need: N/A

Coding Communication Challenge

iRobot Education

In this coding challenge, students will practice collaboration and communication skills in order to conquer a robot obstacle course while maintaining a safe distance.

Teacher Prep

Robot Station

- Establish a safe, socially-distant area on a table or the floor of your classroom for Root and your fold-out whiteboard grid.
- Place a whiteboard grid, Root Robot, dry-erase marker and cloth, and a vinyl cling sheet at the station.

Coding Station

- 8ft. (2.4m) away from the Robot Station, set up a seat (facing away from the Robot Station) and coding device.
- Open the iRobot Coding App on your coding device and connect to the Root Robot at the corresponding Robot Station.

With the Class

- Divide students into pairs. One student will serve as the Robot Wrangler (RW) and one will be the Coding Captain (CC).
- Seat the RW at the Robot Station. Seat the CC at the Coding Station, facing away from the Robot Station so they cannot see Root.

Subjects: Coding, Robotics, SEL, Communication

Experience Level: Beginner, Intermediate

Time: 15-20 mins

Group Size: 1-4

Supplies: Root Coding Robot, iRobot Coding App, Coding Device, Whiteboard Grid, Dry-Erase Marker, Dry-Erase Cloth, Vinyl Clings

- Challenge the RW to create an obstacle course on the whiteboard grid, either with their dry-erase marker or the vinyl clings. The CC should not be able to see the obstacle course.
 - Their course should contain:
 - One (1) starting point
 - Three (3) "checkpoints" for Root to reach
 - Two (2) "obstacles" for Root to avoid
 - and one (1) finish point
 - NOTE: Obstacle course requirements can be scaled up or down for difficulty level.
- After the course has been assembled, challenge the RW and CC to code Root to complete the obstacle course. They must do so only by verbal communication, as the CC will not be able to see the course and the RW does not have access to the coding device.
- Make sure to wipe down the entire coding station, including Root, whiteboard grid and clings before switching groups.

Assessment

Students may:

- Demonstrate their solution to the teacher
- Take a screenshot of their coding solution paired with a photo of the obstacle course

Extension

Reverse Engineer Activity

- Provide students with a print-out of an iRobot Coding project with a blank whiteboard grid. Challenge students to design the grid that would match the provided coding project, including the starting point, checkpoints, obstacles and finish point.

Real World Connections

When helping to diagnose a problem over the phone, IT technicians need to be experts in how to ask for specific details from their clients. The better they are able to understand what their client can see, the faster they'll be able to problem-solve!

iRobot Education

iRobot Education Learning Library

Subjects:

- Art
- Coding
- Dance
- ELA
- Engineering
- Math
- Music
- Science
- SEL
- Social Studies
- 3D Printing

Ages:

- No Exp. Req.
- PreK-K
- Grades 1-3
- Grades 4-5
- Grades 6-8
- Advanced
- Intermediate

Types:

- Lessons
- Projects
- Games
- Puzzles



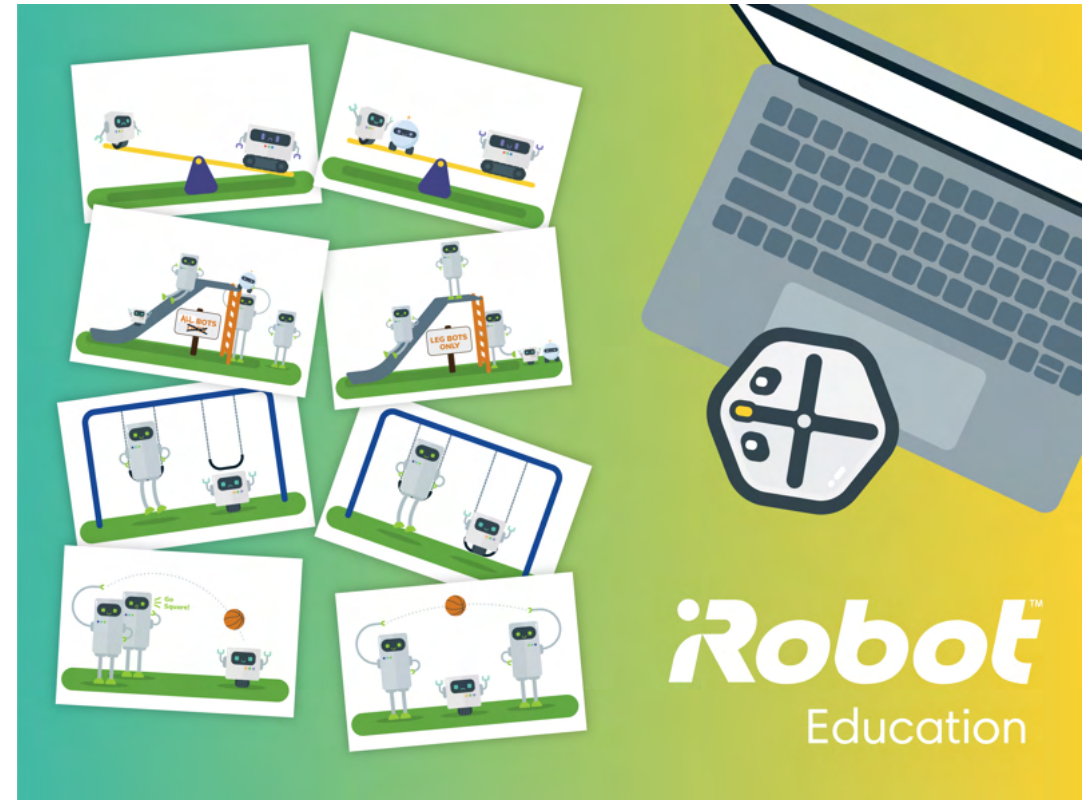
Free Access

Robot Feelings: The Kind Playground

Making good decisions with code

In this coding challenge, Root drives around the playground and encounters different situations. Can Root make four good choices in a row? If Root makes a bad choice, start back at the beginning!

- SEL + Robotics = Magic!
- Celebrate decision making through storytelling
- This format opens the door for MANY different levels of engagement from creating unique stories and discussing the impact of actions



∞ Experience Level

Grades 1-5

⬡ Compatible Bots

Root rt0 Coding Robot
Root rt1 Coding Robot

📁 Materials

iRobot Coding App

📁 Subjects

Coding
Robotics
Social Emotional Learning

🕒 Duration

30-60 minutes

👥 Group Size

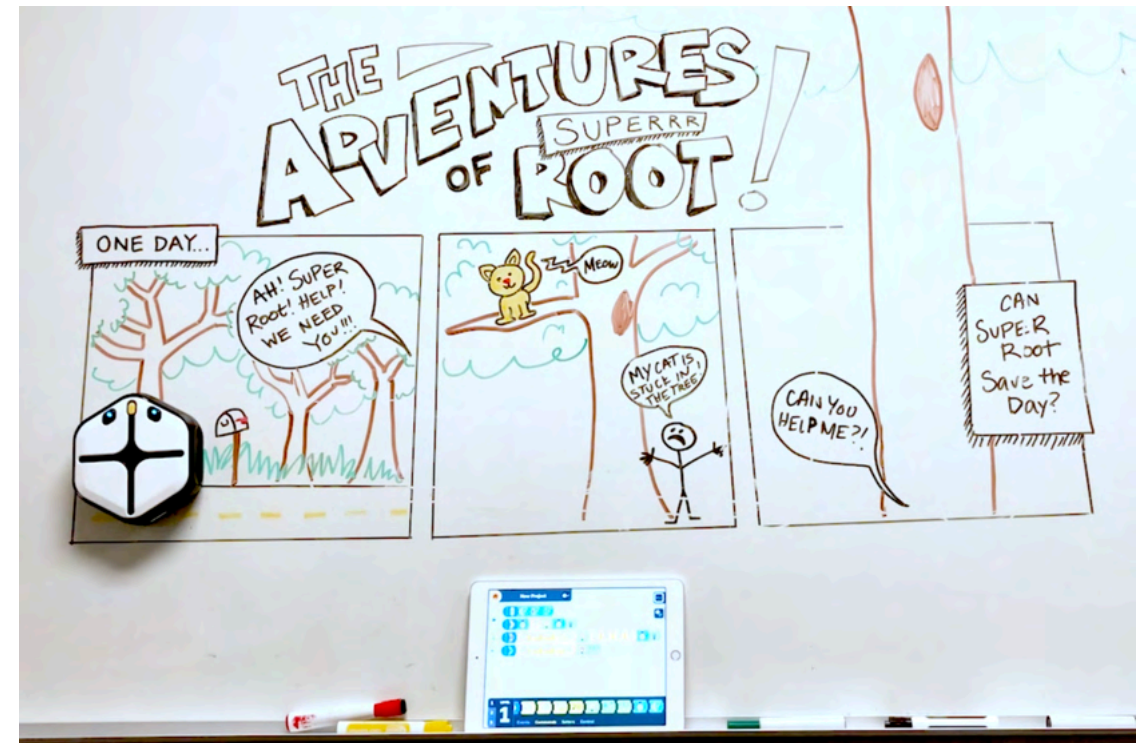
Individual
Small Groups (2-4)



Whiteboard Comic Book

Let students work together to showcase their creativity in a comic book format! This lesson reinforces the importance of sequencing through storytelling and coding. Appropriate for beginner or intermediate coders, students will navigate and animate each frame of their comic with Root.

- Transform your whiteboard into a stage!
- Using drawing as a storytelling medium
- Combine sequence of story with sequence of code
- Incorporate robot choreography into the storytelling experience
- Large space = natural teamwork/ collaboration required



∞ Experience Level

Grades 1-5

⬡ Compatible Bots

Root rt0 Coding Robot
Root rt1 Coding Robot

📁 Materials

iRobot Coding App
Magnetic Whiteboard
Dry-Erase Markers

📁 Subjects

Coding
English Language Arts
Robotics
Science

🕒 Duration

30-60 minutes

👥 Group Size

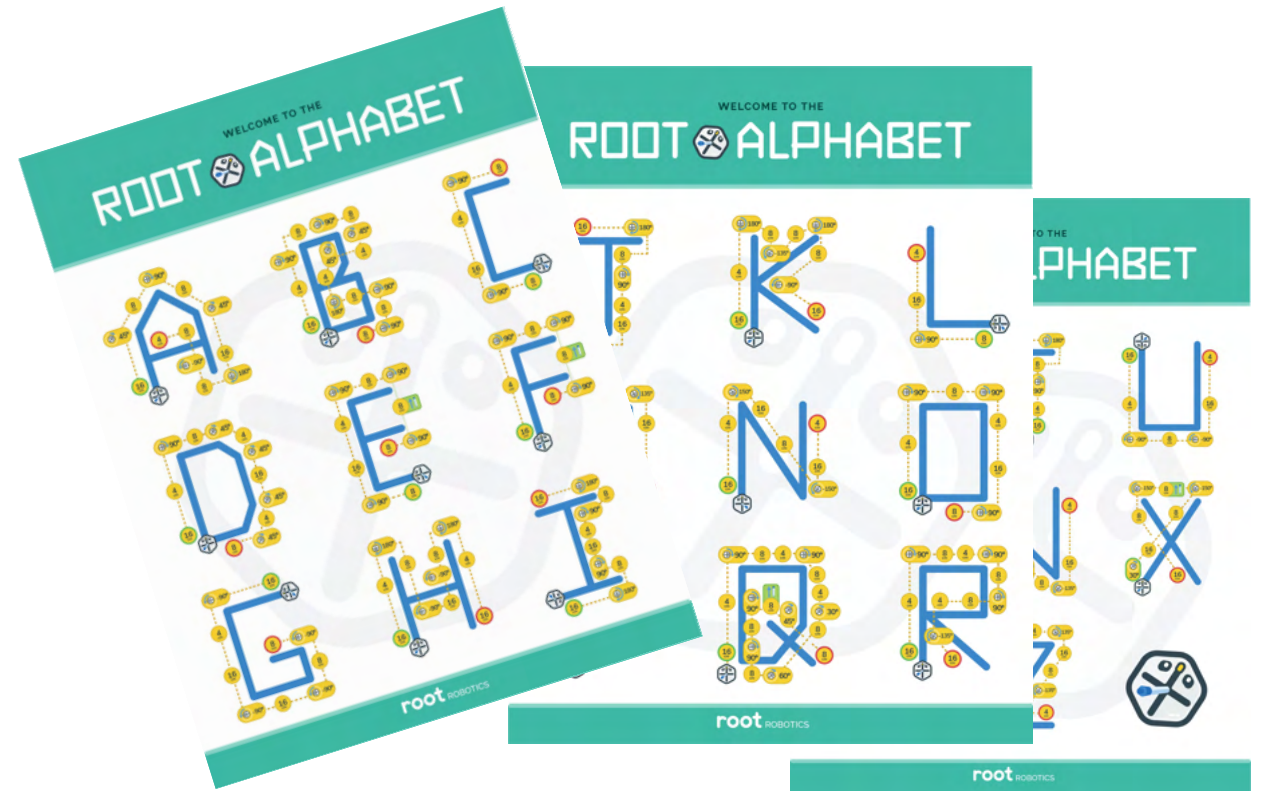
Small Groups (2-4)

Robot Typography

Write with your robot

This activity combines the power of code and robotics with typography. After practicing drawing basic shapes (squares, rectangles, triangles, circles, etc.), students can level up to drawing letterforms in different styles with code.

- Hands-on geometry activity
- Massive opportunity for differentiation:
 - letters vary widely in required skillset
 - Opportunities to write out 1 letter, 2 initials, 1 word or even sentences!
 - Challenge advanced students to create their own typeface for an art component!



Experience Level

Grades 1-9

Compatible Bots

Root SimBot
Root rt0 Coding Robot
Root rt1 Coding Robot

Materials

iRobot Coding App
Whiteboard Surface
Dry-Erase Markers

Subjects

Art
Coding
English Language Arts
Robotics

Duration

30-60 minutes

Group Size

Individual
Small Groups (2-4)


Free Access

Dance Moves

Learn about code through dance

Use the paper code blocks to program a dance for you and your adults to try together!

Code a Dance!
Use the paper code blocks to program a dance for you and your adults to try together!



1. CUT along dotted lines. 2. FOLD along solid black lines. 3. FOLD IN gray tabs. 4. TAPE or GLUE tabs to create dance dice.

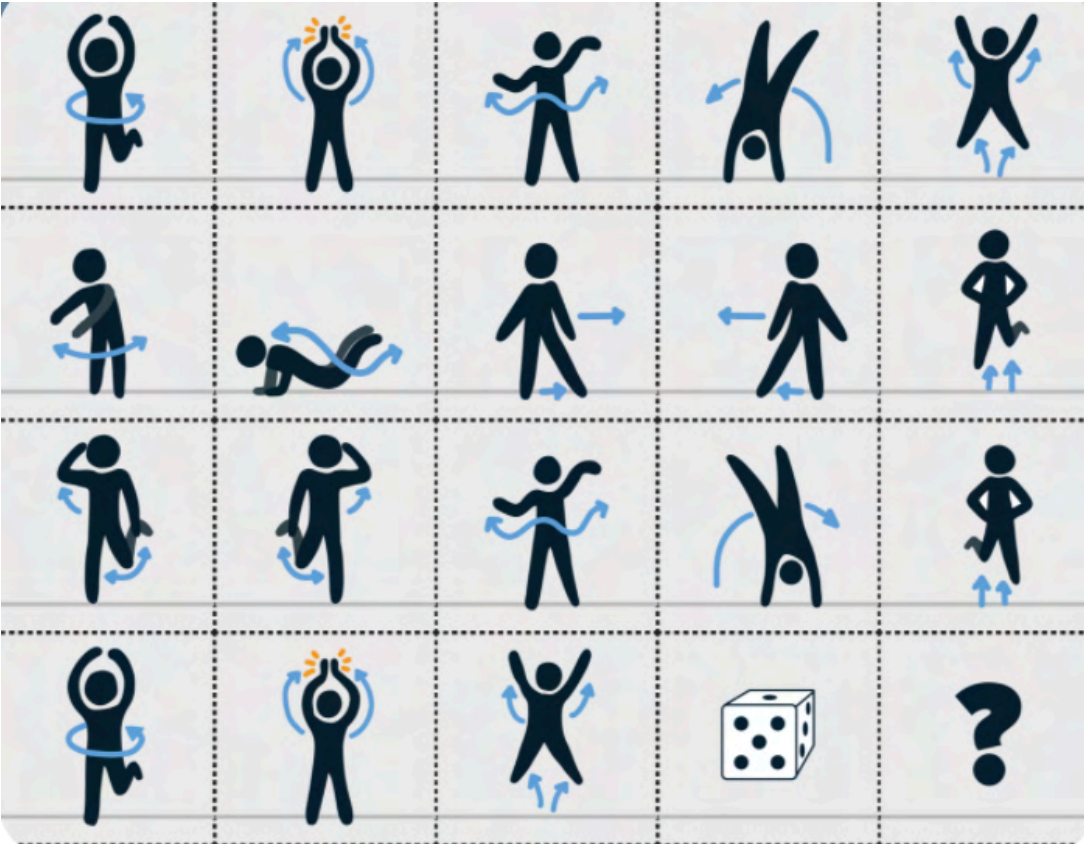
Dance Dice

Use the Dance Dice when there is a RANDOM DANCE BLOCK in your program.

when

TIP: Want to code a longer dance? Build your dance code on the

robot Education



Experience Level
Grades 1-5

Compatible Bots
Unplugged

Materials
Game Cards
Space to move!

Subjects
Coding
Dance

Duration
5-15 minutes

Group Size
Individual
Small Groups (2-4)

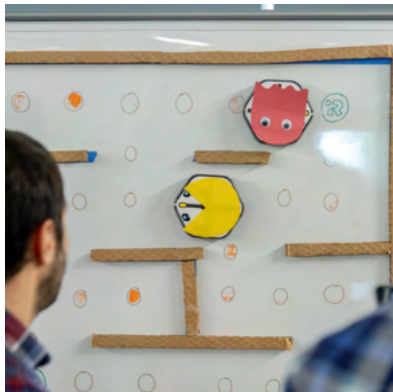


Free Access

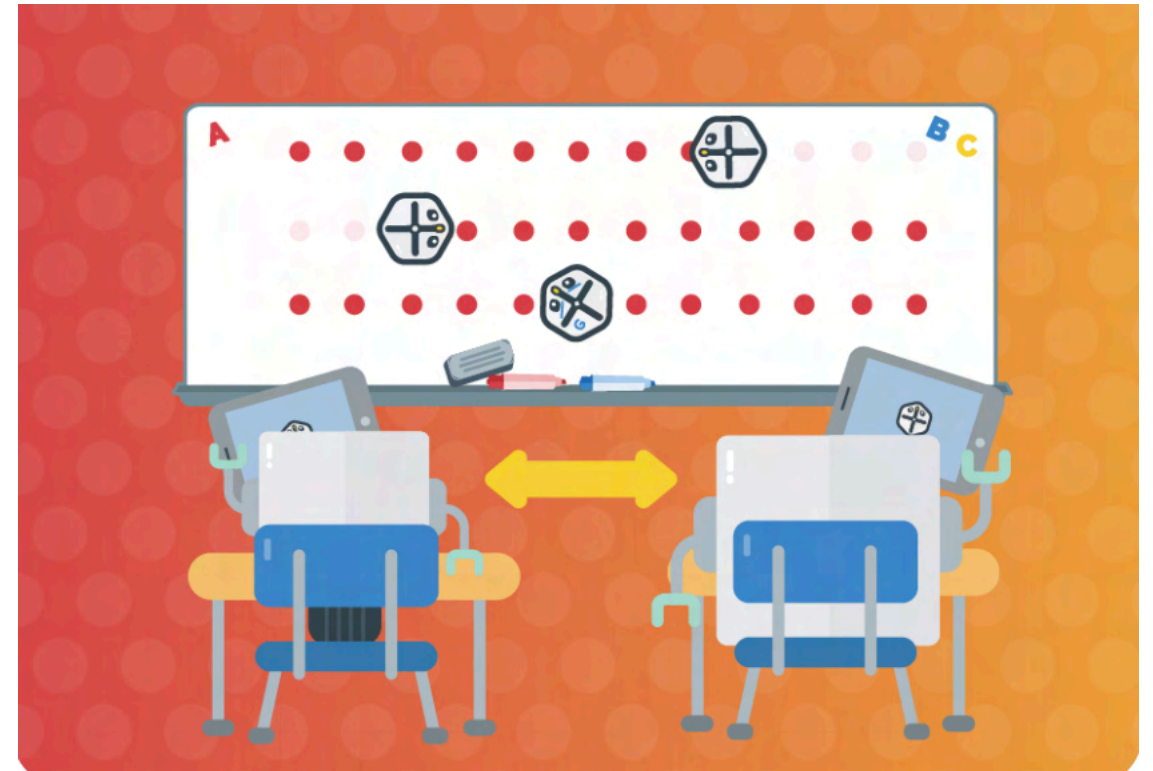
Avoid the Ghosts (Pacman)

Code your way to win the game

In this coding challenge, students will work together to clear the board and avoid getting "tagged" by the Ghost Team!



Fun for all ages and experience levels!



Experience Level

Grades 1-9

Compatible Bots

Root rt1 Coding Robot

Materials

iRobot Coding App
Magnetic Whiteboard
Dry-Erase Markers

Subjects

Coding
Social Emotional Learning

Duration

30-60 minutes

Group Size

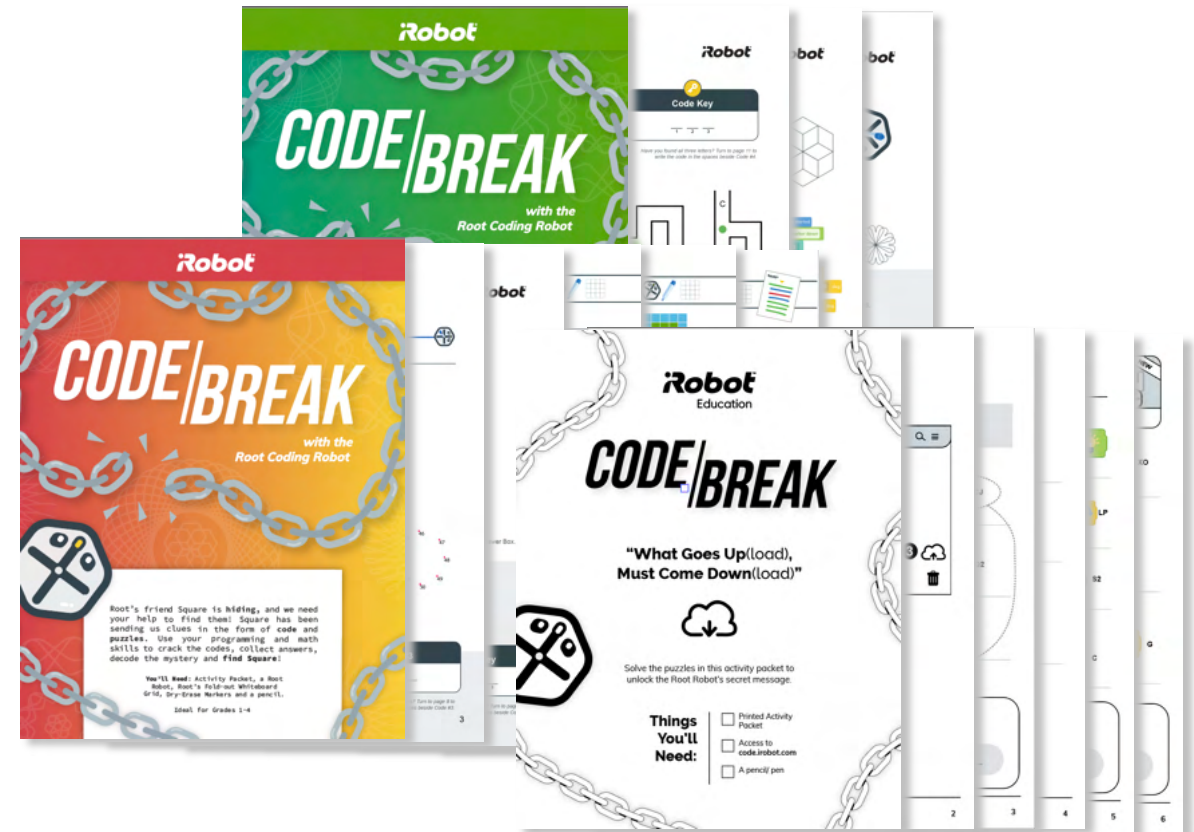
Small Groups (2-4)

Free Access

Code Break Series

Digital escape rooms

Learn how to create and download coding projects with this activity packet! Solve all puzzles with the Root Coding Robot in the virtual arena or in the physical world to reveal the secret message at the end!



- Printable puzzle packet for students to work through independently or with a team
- Use as a template to create your own puzzle pack
 - Great opportunity for differentiation! Challenge advanced students to create their own puzzles for classmates to solve.

🔗 Experience Level
Grades 3-8

🟡 Compatible Bots
Root SimBot
Root rt0 Coding Robot
Root rt1 Coding Robot

📄 Materials
iRobot Coding App

📖 Subjects
Coding
Robotics
Puzzles

🕒 Duration
30-60 minutes

👥 Group Size
Individual
Small Groups (2-4)

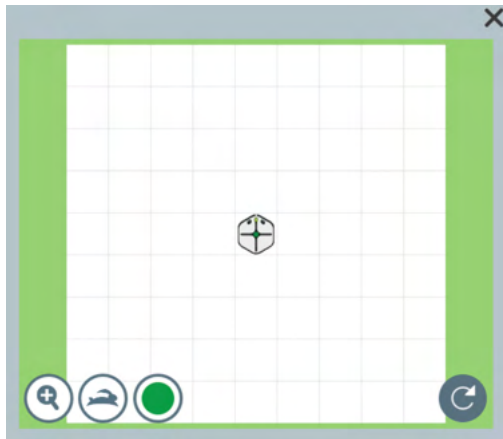


Free Access

Pizza Challenge

Family engagement night

Root loves a good slice of 'za! In this differentiated coding challenge, students use the Root Coding Robot's eraser functionality to eat a virtual slice of pizza! Then, draw their own pizza with code!



Great opportunity for community engagement!



Experience Level

Grades 1-9

Compatible Bots

Root SimBot
Root rt0 Coding Robot
Root rt1 Coding Robot

Materials

iRobot Coding App
Whiteboard Surface
Dry-Erase Markers

Subjects

Art
Coding
Robotics

Duration

30-60 minutes

Group Size

Individual
Small Groups (2-4)

Host a Pizza Challenge

FREE Family Engagement Kit

• Host Pack

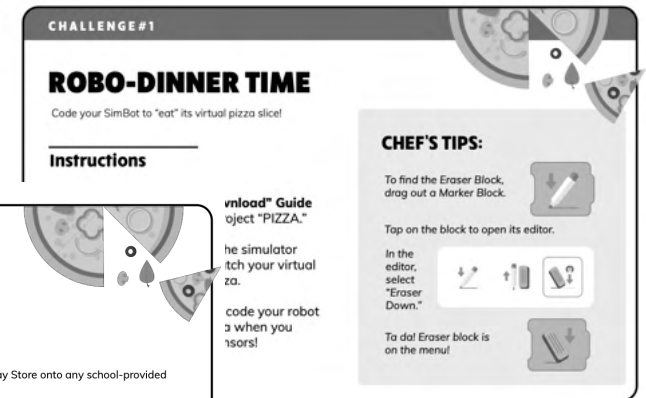
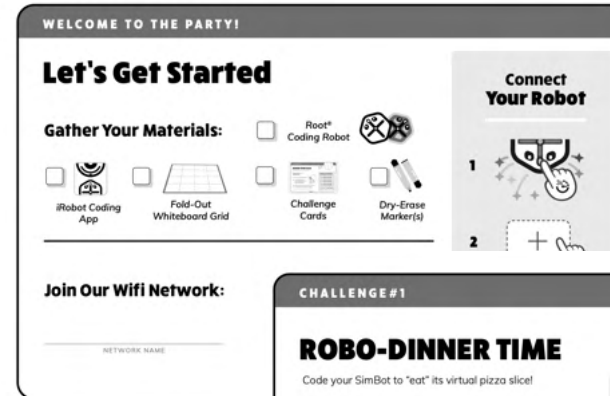
- Facilitator Script
- PowerPoint Presentation
- Promo Materials (Social Media + Email Templates)

• Volunteer Pack

- Set-Up Guide
- Answer Key + Helpful Tips

• Participant Pack


- Getting Started Cards
- Upload/Download Guides
- Challenge Cards
- Going Further Cards



Volunteer Set-Up Guide


APP + ROBOT PREP

- APP DOWNLOAD**
Download the **iRobot® Coding App** from the App Store or Google Play Store onto any school-provided tablets that families will use.
If families will be using the web page code.irobot.com instead, ensure that the Let's Get Started cards have your school's wifi network and password info.
- CHARGE ROBOTS**
Use USB-C cable (provided in box). Make sure to allow for 2 hours of charging.
- CHECK CONNECTION**
Connect each robot to iRobot® Coding App and run at least one code project. The app will check your robot's firmware and prompt any required updates.
- PRE-NAME + LABEL ROBOTS**
To streamline families' connection, we recommend labeling each robot.
To name your Root Robots, first open the device manager and connect to a robot. Once connected, tap on the text below the robot's icon and type a new name. Make sure to label the connected robot with the new name (you can use a dry-erase marker on Root's top)! When finished, tap the robot's icon to disconnect.



GATHER MATERIALS

- EACH FAMILY SHOULD HAVE:**
 - Device with the iRobot Coding App or web browser
 - Root Coding Robot
 - Fold-Out Whiteboard Grid
 - Dry-Erase Marker(s)
 - Let's Get Started Guide (PRINTED)
 - Challenge Card Set (PRINTED)
 - Go Further Guide (PRINTED)
 - Blank Participant Certificates (PRINTED)



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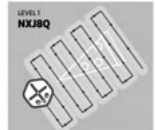
Eraser Block
Some participants may need help finding the Eraser Block. To use the Eraser Block, drag out a Marker Block and tap on it to open its editor. In the editor, select "Eraser Down." This will turn the Marker Block into an Eraser Block.

Simulator
For this challenge, coders must run their code in the simulator to use the Eraser Block correctly. If the simulator is closed, tap on the Sim tab to open it.
IMPORTANT NOTE: The r13 Root Coding Robot's eraser only works on magnetic surfaces, and the r12 Robot does not come with a built-in eraser.


Trouble Getting Started?
To get families started, encourage them to try putting the robot's eraser down and driving forward two blocks. This will code Root to take its first bite of pizzas and get the code rolling!

Sample Solutions

LEVEL 1
NXLJQ



LEVEL 2
ZPZPL



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Root® Adventure Packs

\$49.99

The coding adventure never ends with Root® Adventure Packs! Experience custom-curated content and unlimited learning opportunities across the world!



Root® Adventure Packs



Coding at Sea

Ahoy matey! When it comes to learning, there's no such thing as overboard. If you have what it takes to be a pirate, grab this Root Adventure Pack and get ready to sail your Root Coding Robot across uncharted waters. Navigate landmarks, discover mer-Roots and plunder the island for hidden treasure! If you're ready to join the crew, say AYE!



Coding in Outer Space

Calling all space cadets! If you're over the moon for coding, prepare to have a blast with this Root Adventure Pack. Taking learning to code out of this world, glide through the galaxy with the Root coding robot. From encountering aliens to dodging asteroids, do you have what it takes to become an intergalactic explorer?



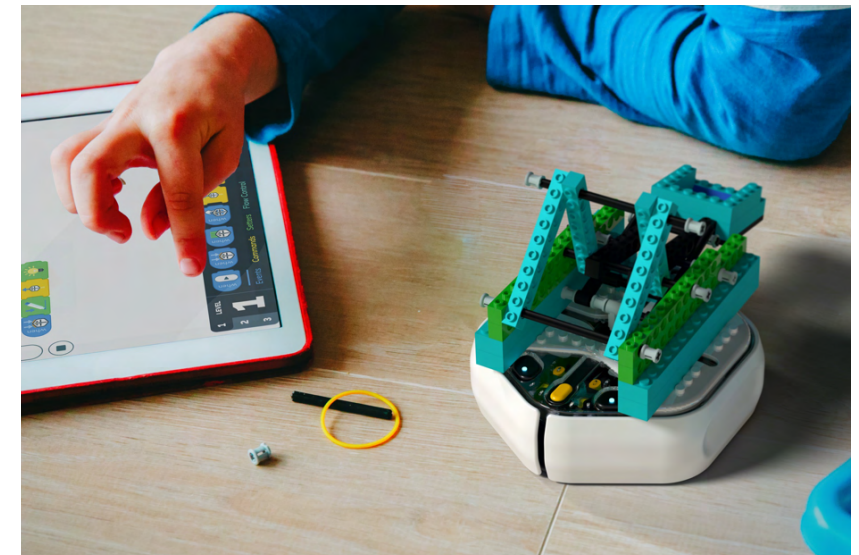
Soccer (Football)

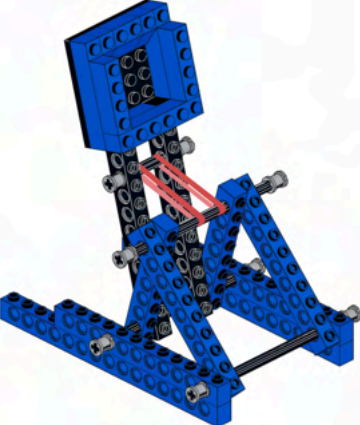
Lace up your cleats! It's time to kick up some coding with this Root Adventure Pack. Meet the Root coding robot on the field to tackle training drills, practice dribbling, and score the winning goal. May the best coders win!

Root® Brick Top

\$19.99

Kick your imagination up a notch with the Root™ Brick Top accessory, which enables you to build onto Root® coding robots using a variety of common building blocks. Root® Coding Robots sold separately.



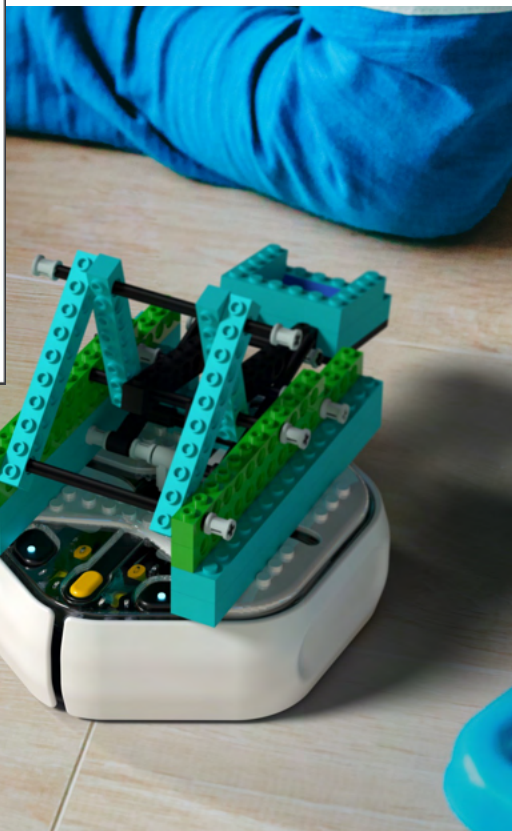
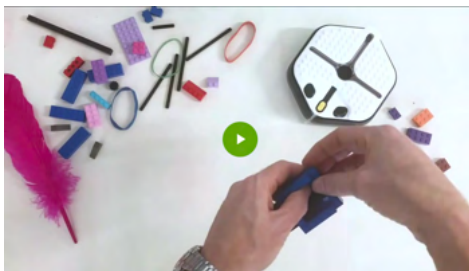


iRobot
Root[®]
Coding Robot

Brick Top Catapult

33 Steps | 80 Pieces | 1 hr build

Ages 8+

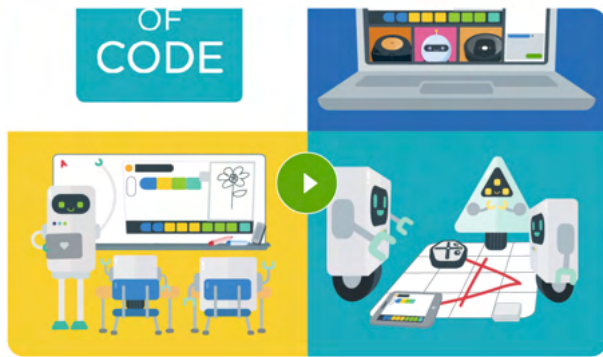


Root[®] Brick Top

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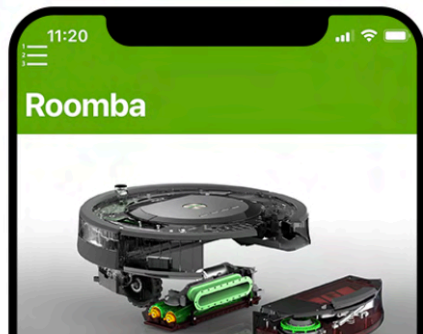




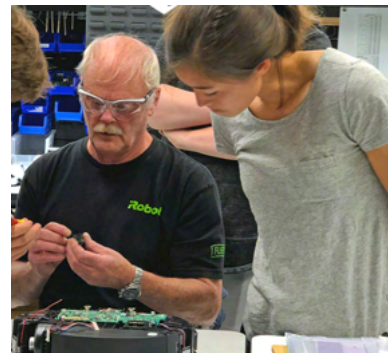
Virtual Classroom Experience*



Remote College Panels



Museum Tour*



Job Shadows

*Temporarily exclusively virtual

STEM Outreach Program

FREE to public

Our multi-faceted programs provide inspiration for students and educators spotlighting the variety of opportunities and excitement STEM can provide.





Tailored Team
Training

\$1499

iRobot™ Education

Professional Development

For millions around the world, robots are both redefining and empowering how people live, learn and work. But, how can you translate this empowerment into your learning institution? How can experiential learning help teach computer science and digital literacy while connecting this learning with other subjects? In what ways can robots be used to enhance student engagement and influence how learning goals are met, or measured? And are you prepared to teach with robots—or maybe even more importantly, how do you know when you are ready?



Insider Team

Educators may apply to become an iRobot™ Education Insider team member and receive the opportunity to pilot and provide feedback for the iRobot® Coding platform, our educational robots and corresponding curriculum.

Advisor Team

Current iRobot™ Education Insiders and alumni can apply to become members of the Advisor Team, who are set apart as innovators with direct opportunities to develop and elevate iRobot™ Education's offerings.



iRobot Education Ambassador Program

Application-Only

While developing learning resources, iRobot Education looks to educators for invaluable guidance and feedback; in particular, those involved in our ambassador program. These educators are experts in creating, curating and delivering impactful learning experiences, scaffolded to meet the needs of each and every student.



Root® rt1
Intro Pack (2)
\$399



Root® rt1
Classroom Pack (6)
\$1199



Root® rt1
School Pack (12)
\$2199



Root® rt1
Technology Pack (30)
\$5495

Root® Coding Robot

Educator Bundles

Designed for educators committed to building a coding and robotics program, the Root® Classroom packs are an ideal solution for sharing robots groups of students and/or classrooms. The educator packs include multiple Root® rt1 Robots, fold-out whiteboard grids, dry erase markers, dry erase cloths, sets of vinyl cling stickers, chargers, a printable Learning Level 1 curriculum guide and a 1-year subscription to premium content for multiple devices.

Funding Ideas

BILL & MELINDA
GATES foundation



Foundations

Foundations exist as nonprofit organizations or charitable trusts that support various causes. Some foundations might require a Letter of Inquiry (LOI) prior to the application. Similarly, foundations may put out a Request for Proposals (RFP). Local educational foundations (LEFs) exist in various regions and can be another source of support.

TOSHIBA



Corporate Giving

Many corporations are dedicated to the social impact of the communities they serve. These are some examples of the many corporations that support STEM and education initiatives.

**DONORS
CHOOSE**



Crowdfunding

There are online platforms dedicated to connecting passionate teachers with passionate donors. Remember to share your initiative page within your own networks to generate interest.

Rotary 



**SCHOOL
COMMITTEE**



Local Initiatives

Consider the resources that already exist at your school and within your community. Many PTA's/PTO's are eager to support innovative classroom projects.





iRobot Education Resources

Recommended Next Steps for Attendees

- Sign Up for iRobot Education Newsletter:
edu.irobot.com/sign-up
 - Stay updated on exciting new content and deals!
- Start Coding with the **iRobot Coding App**
code.irobot.com
 - Download on iOS and Android devices
- Celebrate CS Education Week!
 - December 6-12, 2021: Stay tuned for activities!
- Tag us in your adventures **@iRobotEducation**
 - We love to hear from educators!



Thank You!

Join us again soon 😊