

Wonder

JAN 15 / 2015

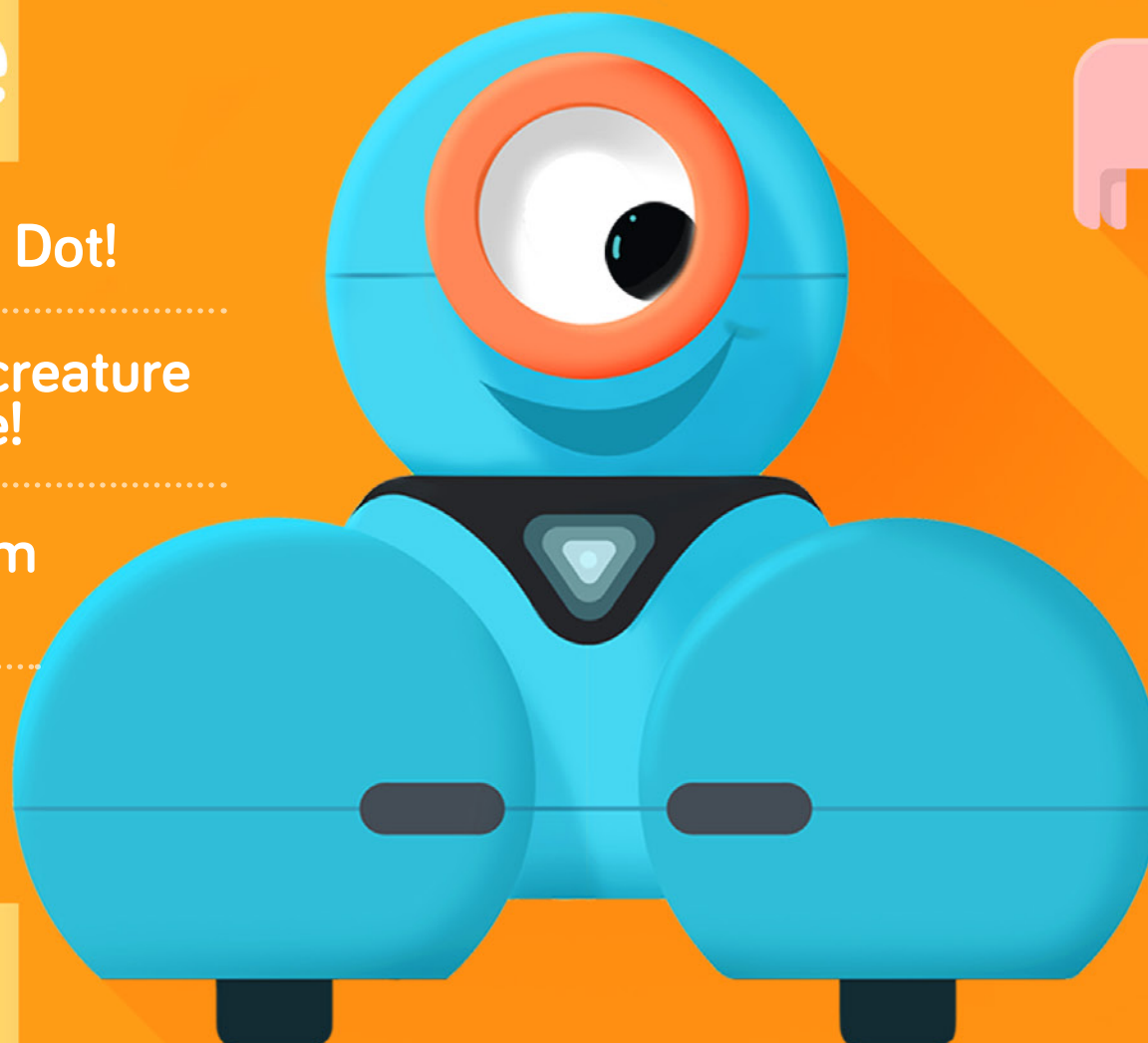
Magazine

Get started with Dash & Dot!

Turn Dash & Dot into a creature
to explore their wild side!

Read about projects from
kids all over the world.

Learn about how Dot
can guard your room.



Welcome to the first issue of Wonder Magazine!

We are excited to bring you play ideas, projects from kids around the world, and Dash & Dot's adventures. This issue is all about getting to know them!

In this issue

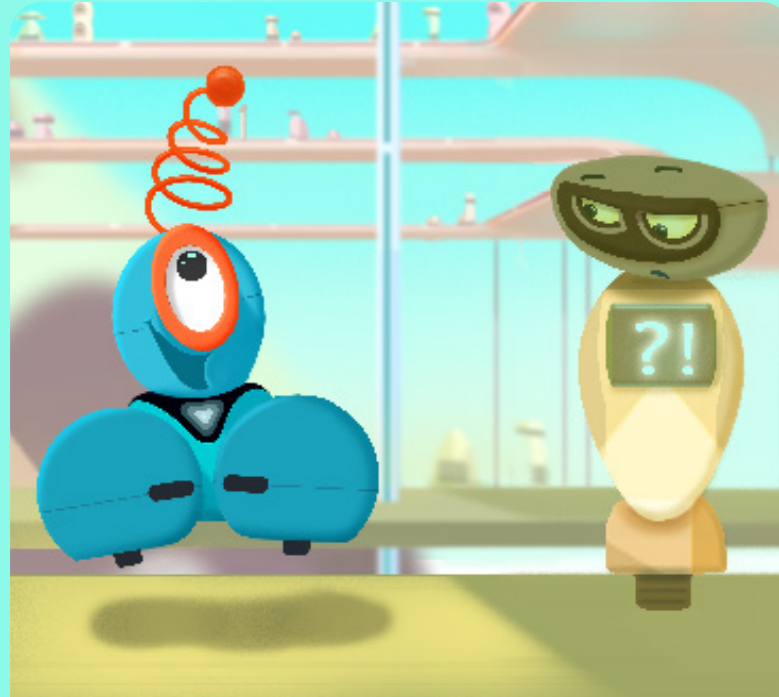
<u>Adventures of Dash & Dot</u>	3
.....	
<u>Getting Started with Dash & Dot</u>	5
.....	
<u>Crafty Creature Creator</u>	 8
.....	
<u>Build a Bot</u>	11
.....	
<u>Dot the Watchbot</u>	 13
.....	
<u>Wonderful Projects</u>	15
.....	
<u>Ask Dash</u>	17
.....	
<u>The Funny Corner</u>	18
.....	
<u>In the Classroom</u>	19

Adventures of Dash & Dot

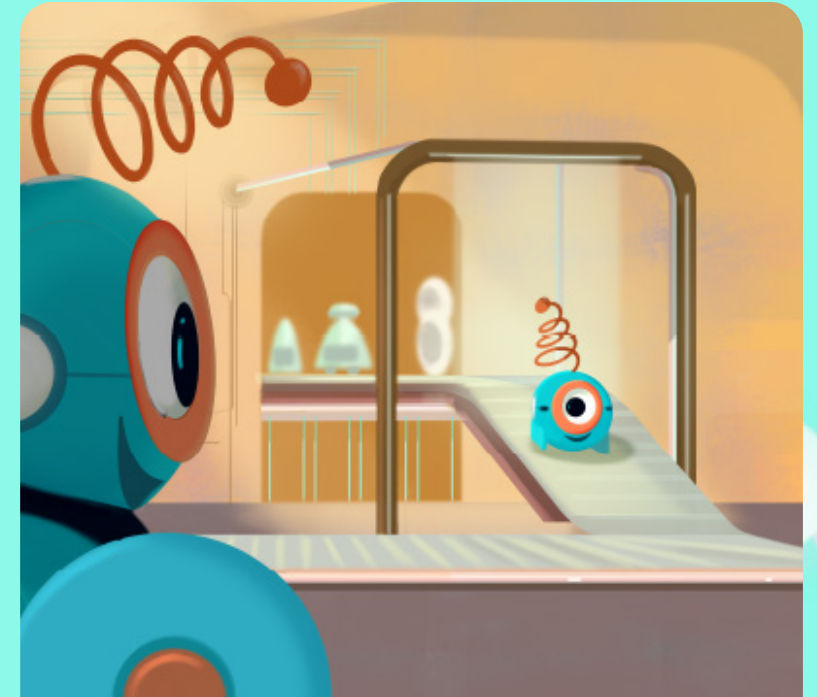
On an island far away...



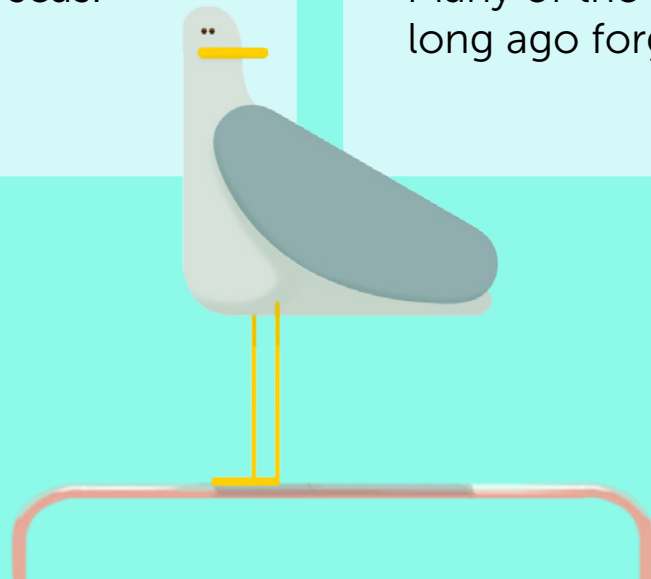
To this day, one of the great wonders of the world is the mysterious island of robots hidden away in far off seas.



On this island there are robots of all types. Of these robots, Dash has always been the most playful. Many of the other robots had long ago forgotten how to play.



One day, at the busy factory where new robots were made, Dash met Dot. Dash could see that Dot was a robot who also loved to play.





On the beach, one windy day, Dash & Dot found a curious thing swept in from the the sea. It was a tattered flyer sticking out of the island sands.



Curious, Dash & Dot began to read the flyer. It spoke of a wonderful place where children discovered new ways to play.



Dash & Dot built a new bubble-domed raft to cross the seas. They packed up their favorite toys and eagerly set off on their new adventure.



To be continued...

A photograph of two blue Dash & Dot robots. One robot is inside a green, arched tunnel, looking out. The other robot is standing behind a wooden fence in the background. The robots are bright blue with large, round, orange-rimmed eyes and black bodies. The background is a blurred outdoor setting with green foliage.

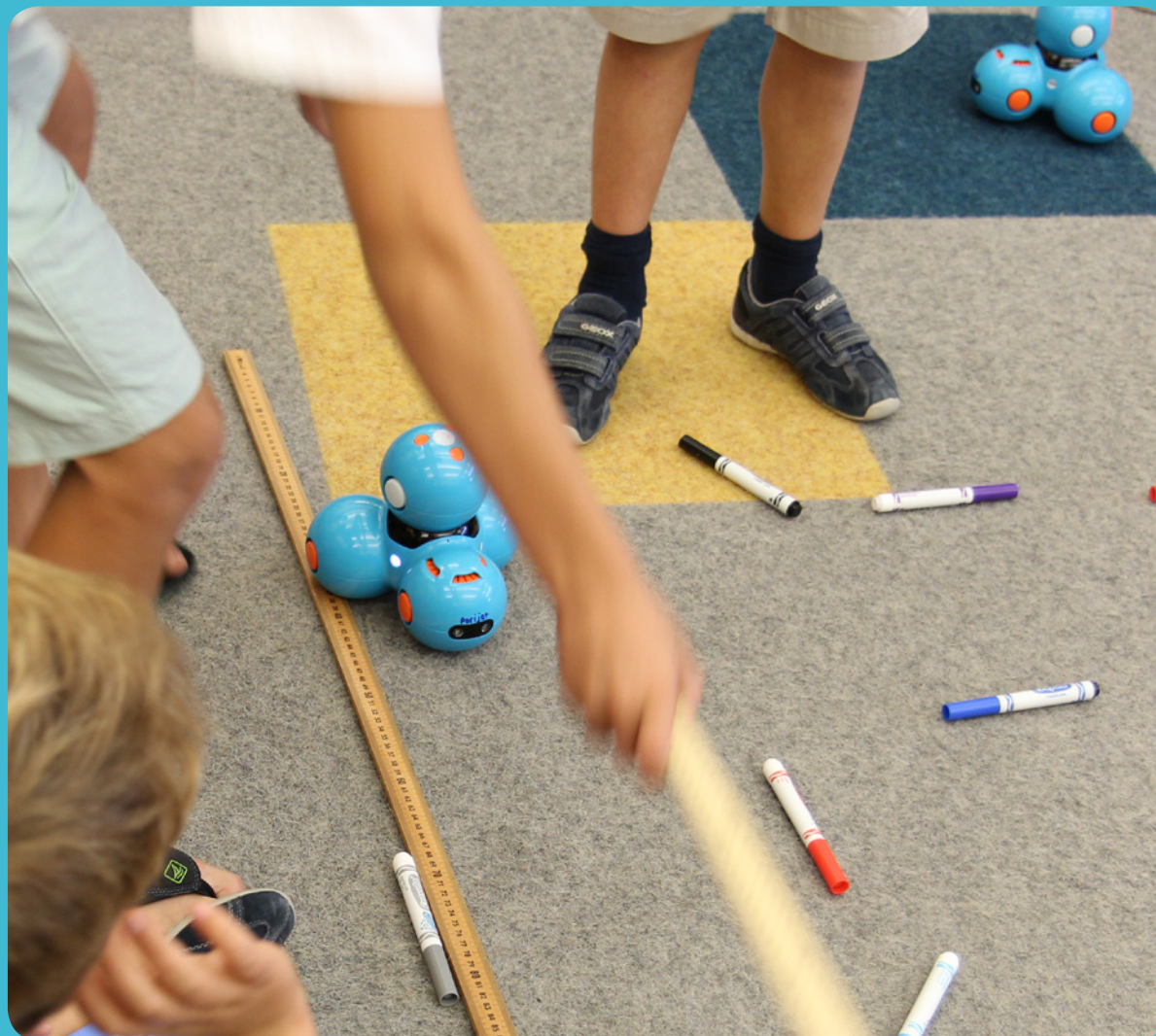
Getting Started with Dash & Dot

Dash & Dot have traveled a long way to meet you and are excited to play! Once you have set your new friends up and named them through the Go app, let's explore Path and Blockly!

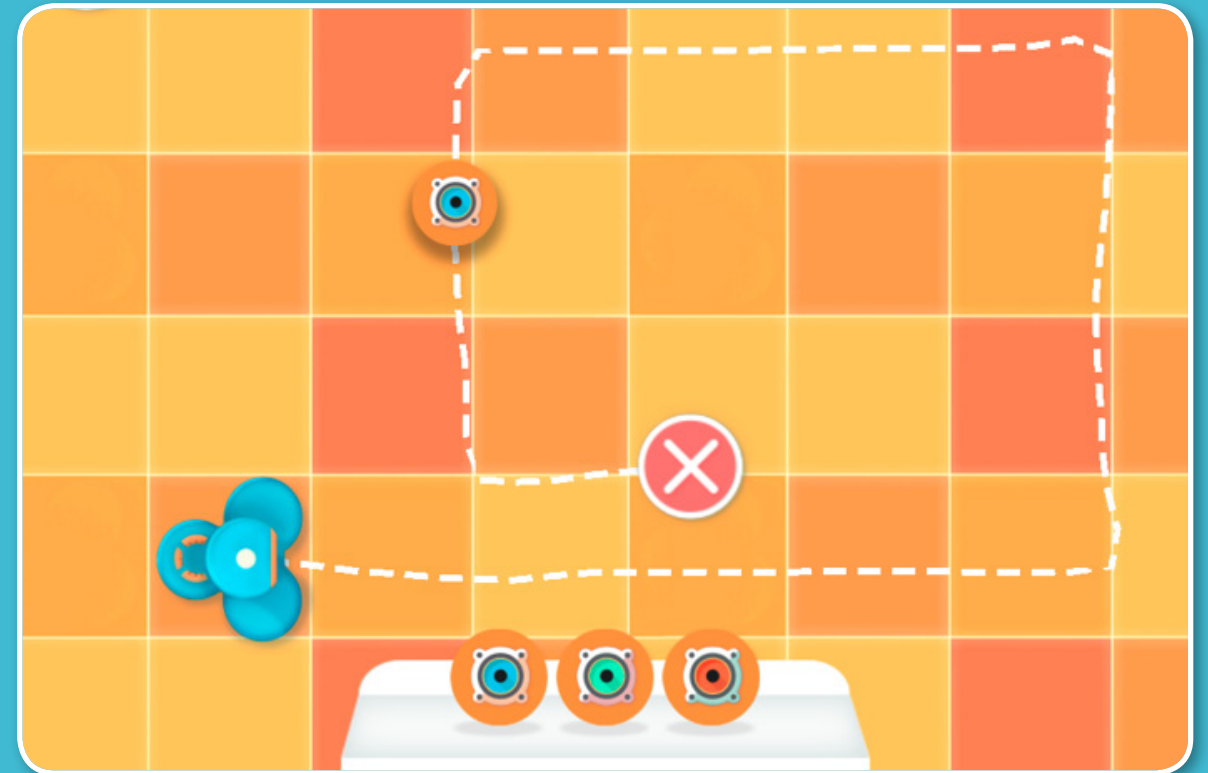


Path

Plan a route for Dash to follow in your room! Unlock all the nodes by following the sequences at the top of the app so that you can add some flair to your path. After you're done, it's time to forge your own path.



Plan out the path by using Dash as a measuring tool for the floor of your room. Mark your starting point, and then use your hand or a sheet of paper to mark the length of each Dash as you measure the size of your room.



Draw out Dash's path using the Path app. (Hint: in grid mode, each square on the screen is one Dash length!)

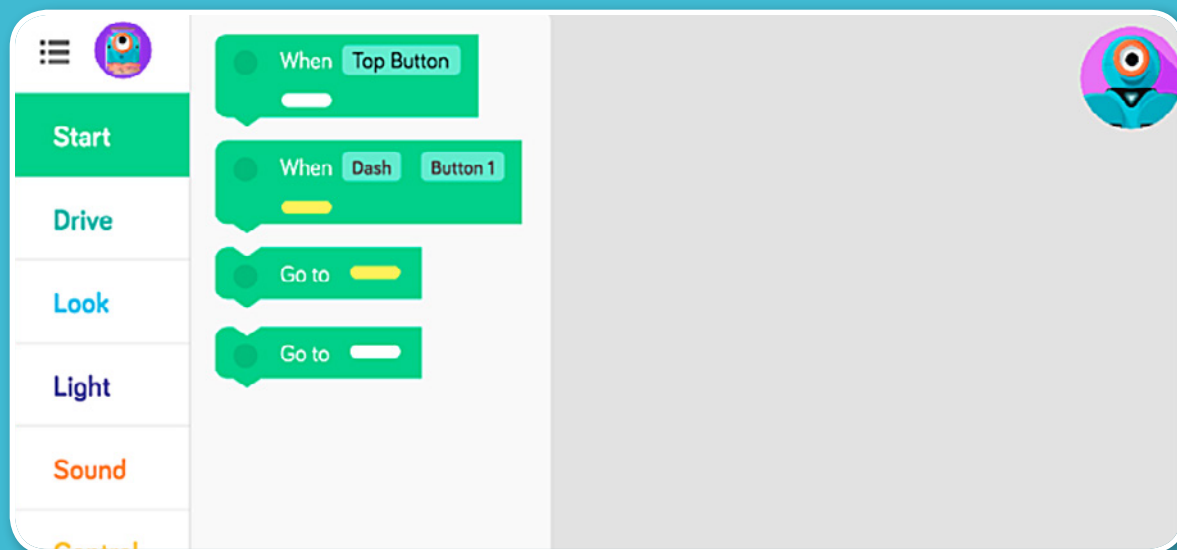
When you are ready, **press Dash's top button** or the robot on the screen, and watch as Dash helps you clean up your room! If one Path isn't enough, add in a new path and then run the program again.

Try out this project, or make up your own! We would love to see what you do with Path. [Submit your Idea here](#)



Blockly

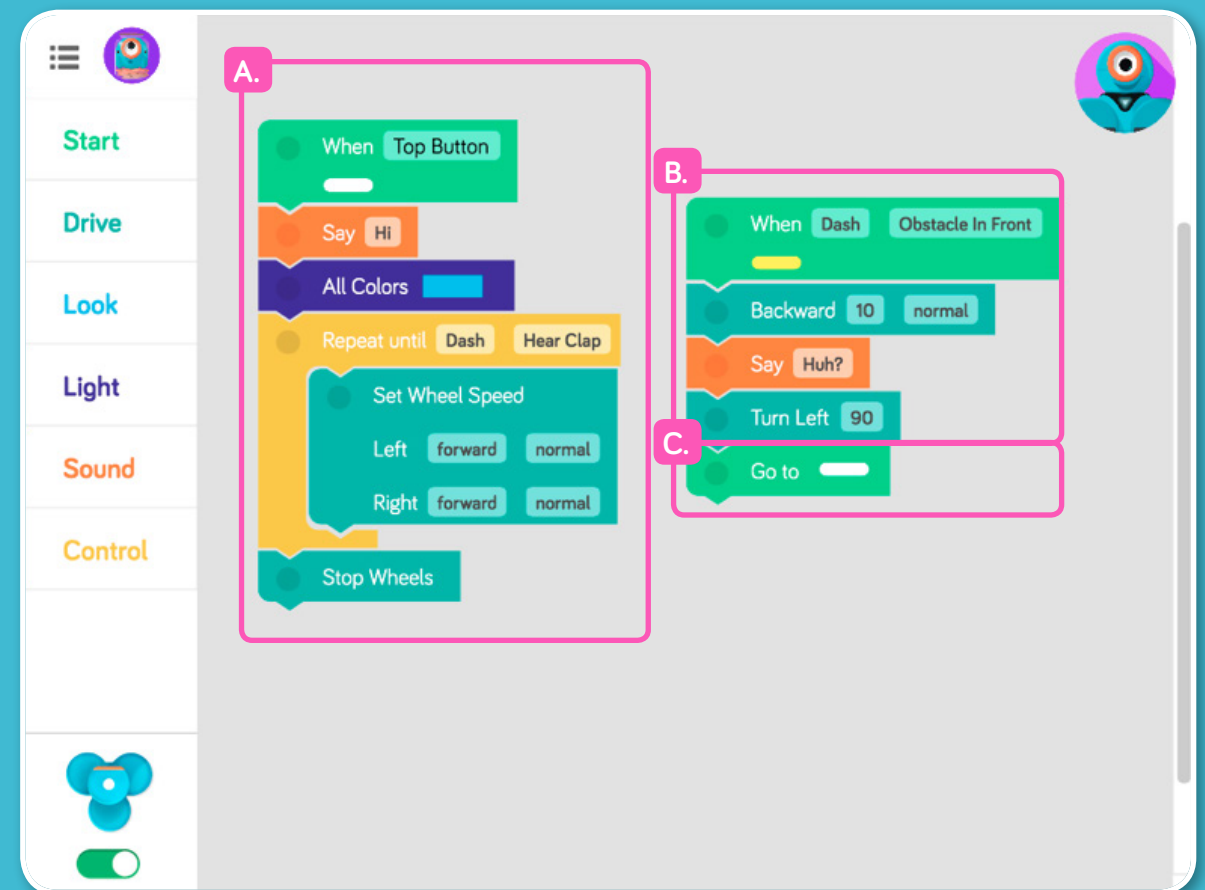
Take on coding challenges and make your own projects for Dash & Dot. Each project starts with a **When block**, and you can add up to 2 When blocks to each project. Grab them from the start menu!



A. Most projects will start when you press Dash or Dot's **Top Button**. This project makes Dash say hi, turn lights blue, and move forward until Dash hears a clap. (Hint: activate the Top Button by pressing the top button on your robot or on the small robot in the bottom left corner of your screen.)

B. You might notice that Dash doesn't see anything in front and keeps running into obstacles! Add another When block for when Dash sees an **obstacle in front**. This project makes Dash back up 10cm, say "huh?", and then turn left 90 degrees.

C. Sometimes you'll want Dash to keep moving forward after avoiding the obstacle. The **Go To block** makes Dash return to the program under the When Top Button block once Dash is done avoiding it.



Try out this project so Dash can run around your room, avoiding things in the way. We would love to see what else you are making with Blockly! [Submit your project here!](#)



Crafty Creature Creator

Dash & Dot like to **dress up** as creatures they've seen in the wild or heard about during their travels. Help them become **any creature you imagine** using LEGO® bricks, crafts, and programming!

What you'll Need:



- Dash or Dot
- Building Brick Connectors
- LEGO® bricks
- Arts & crafts supplies
- Toys and props

Set up

1

Imagine a **creature, alien, or animal**. It can be real or completely made up!

2

Use **LEGO® bricks and art supplies** to make Dash & Dot look like the creature. Make sure you snap the Building Brick Connectors onto Dash & Dot's attachment points so you can build off of them.

3

Create your creature's **habitat**. Does it live in a forest, in the sea, or in a desert? Use your other toys to add other animals for Dash & Dot to interact with.

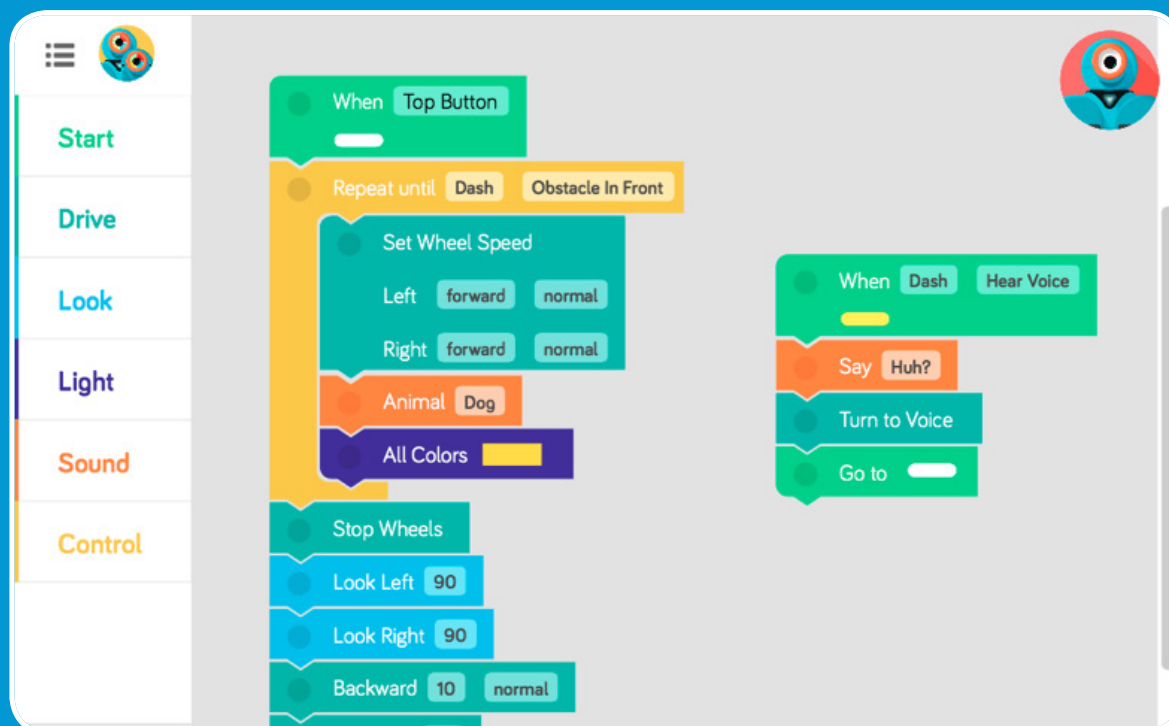
4

Program Dash & Dot to act like the creature. Think about what your creature sounds like, how it moves, and how it responds to obstacles in its way!

Play Options



Blockly : Transform Dash & Dot into your creature.



Path : Show your creature's journey using sounds and effects!



From the Community



Mr and Ms. Fluff
San Francisco, CA



Monkey Fort
San Mateo, CA



Panda
San Francisco, CA



Lightning Dot
Mountain View, CA



Miss Peacock
San Francisco, CA



Mr. Whiskers
Eugene, OR

Build a Bot

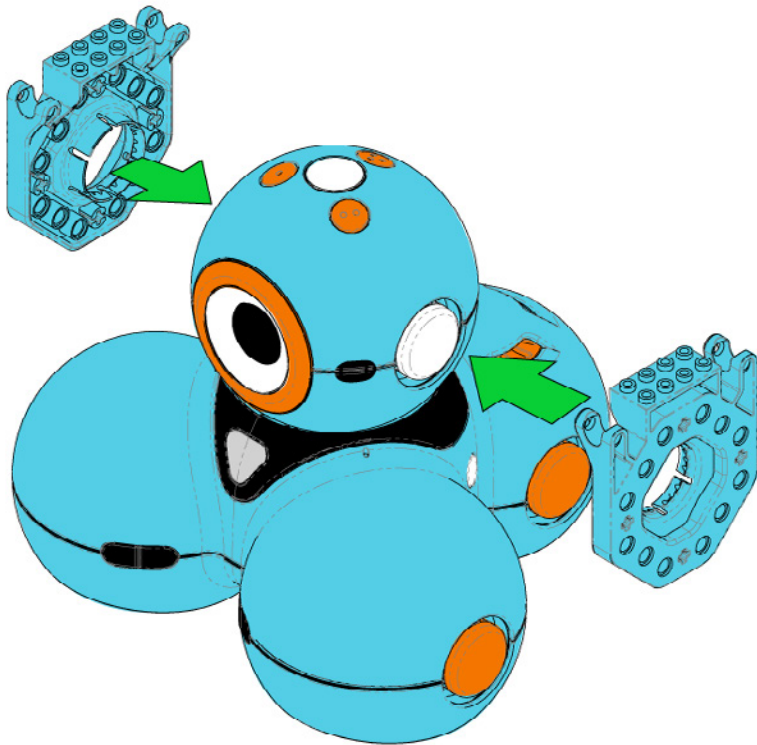
In each Dash box, we added a little surprise for you. Building Brick Connectors allow you to add LEGO® bricks to the mix and transform Dash's look or utility. Simply snap on and start building!



Build a Bot

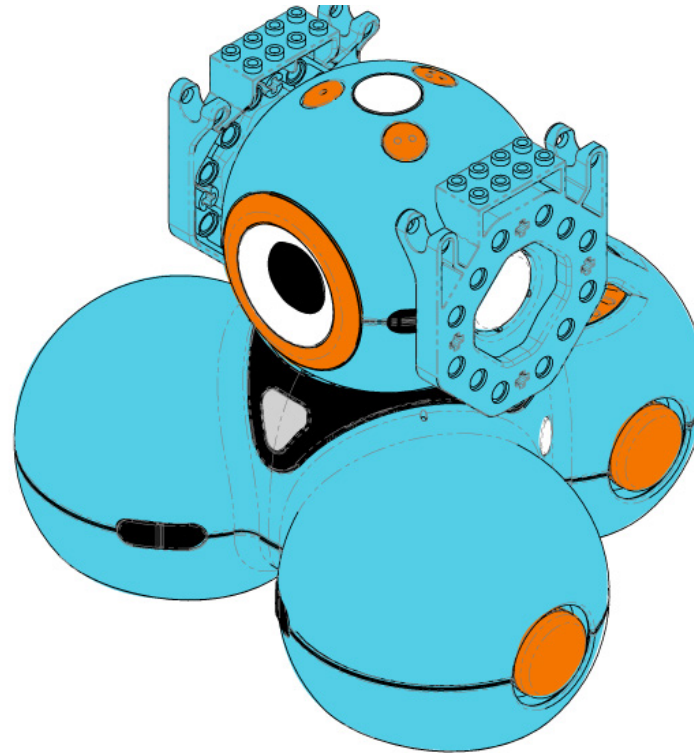
1

Snap the Building Brick Connectors on one of 6 connection points on Dash or 3 connection points on Dot.



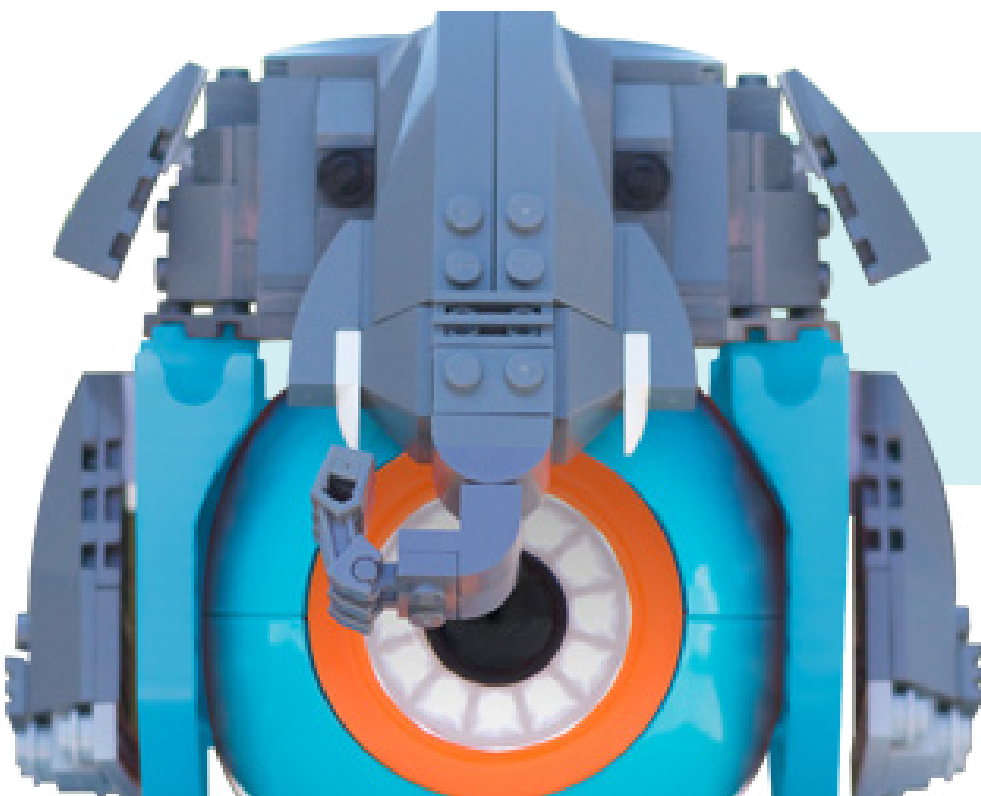
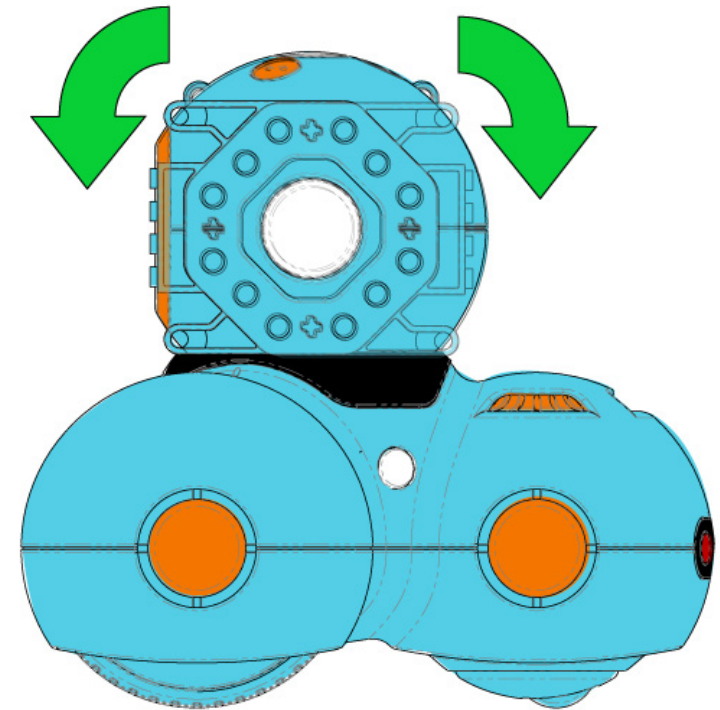
2

Press firmly until you hear a click to snap the extension into place



3

You can build towards the front, back, or up. To change the way your extension is facing, just pull it straight out until it is disconnected, rotate the extension, and then snap it back in!



In the Next Issue

we'll show some special tricks with LEGO® connections that can help you build your own elaborate creations!

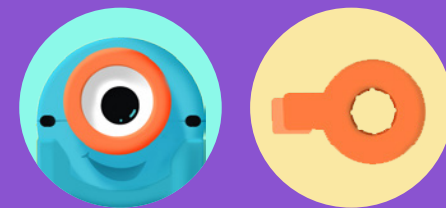
We would love to see what you build!
[Submit your project here!](#)

Dot the Night Watchbot

In the Photo : Ned from Orem, Utah / Age 8

Privacy, please! Whether you're trying to keep out a pesky younger sibling or just need some quiet time for reading or programming, your trusty robot friend, Dot, is ready to **stand guard at your door.**

What you'll Need:



- Dot
- Tow hook
- Shoelace, string, or elastic band

Set up

1

Before you set up your alarm, prepare your space! Which room would you like Dot to guard? Dot the Watchbot works best when **hanging off of a door knob or handle**. Prepare your room for ultimate security!

2

Attach the tow hook onto Dot. Press until you hear a click to make sure you the hook is firmly connected. Dot hangs well when the tow hook is lined up straight up and down.

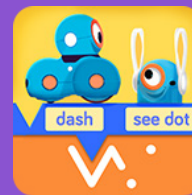
3

Using a **shoelace or rubber band**, hang Dot from your door knob on the inside of your room.

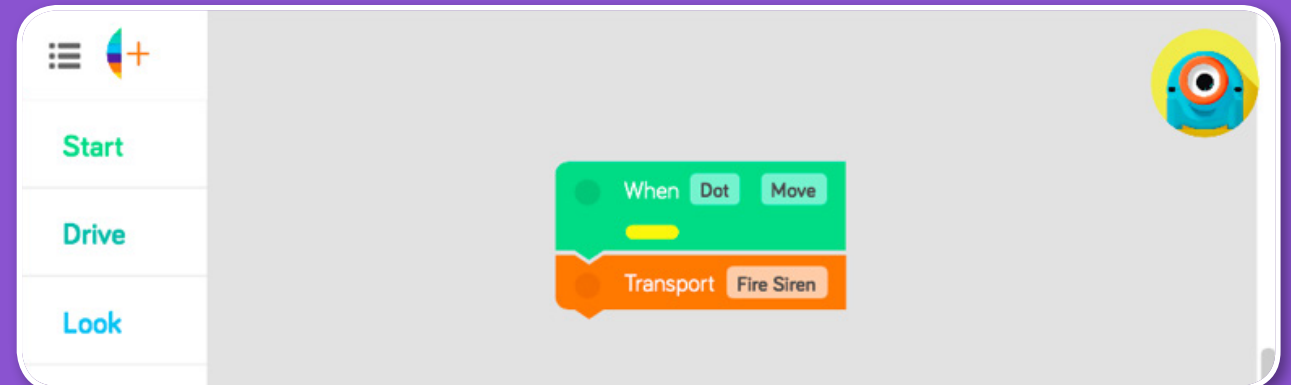
4

Use Blockly to program Dot to **play a sound** when the door is opened! Dot can respond to gestures and movements, so use a When block to trigger the alarm.

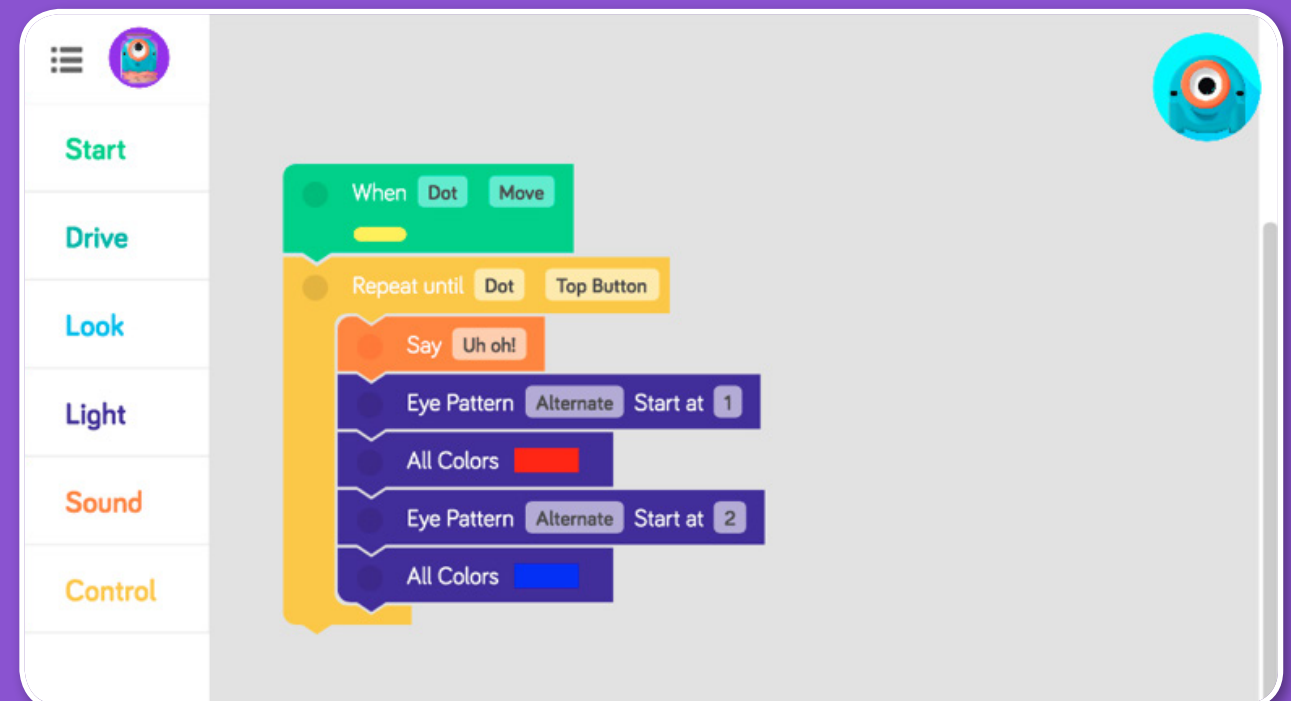
Play Options



Blockly: Sound the alarm when the door is opened



Red alert! Scare off your intruders using sounds and lights! Use Dot's capabilities to turn the alarm on and off. Keep playing the alarm until your room is completely safe and sound.



Wonder(ful) Projects

In each issue of Wonder Magazine, we feature wonderful projects created by our community. Check out what kids around the world are doing with Dash & Dot!

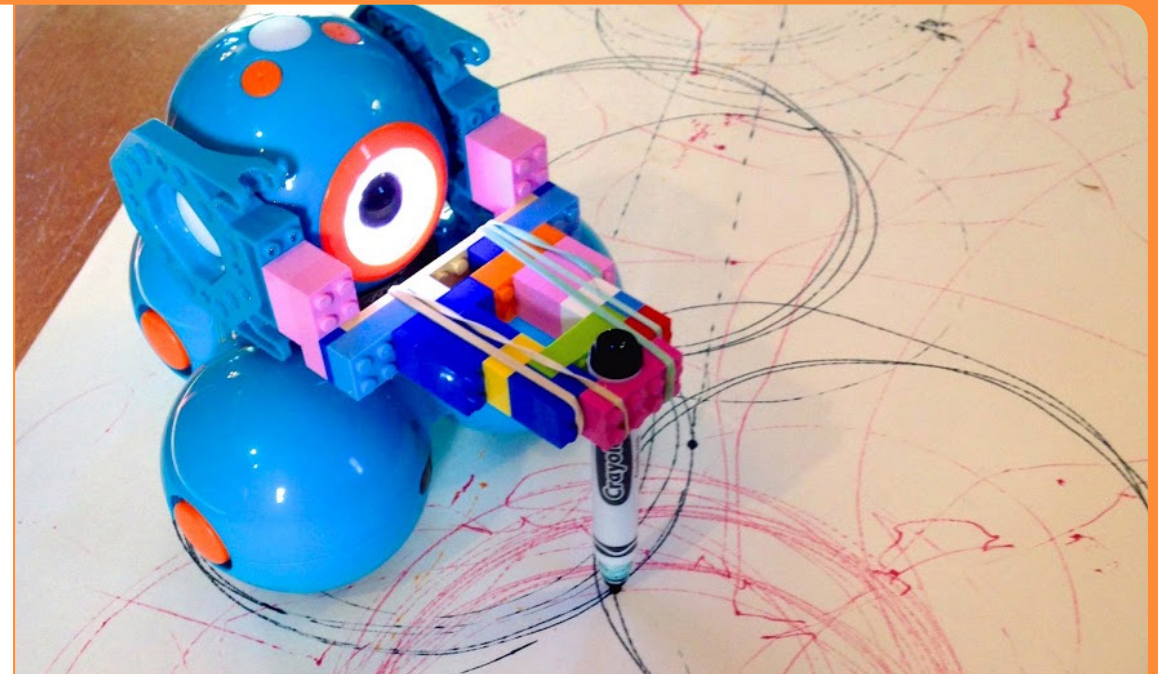
Want to be featured in the next Wonder Magazine? [Submit your project here!](#)

Dash Draws

[See the Video](#)

"For this project, we wanted to see what types of drawings a robot might make. We explored the use of LEGO® for the creation of a tool to hold a marker and the Go and Blockly apps to give instruction to Dash."

by Shawn, Elizabeth, and Isabelle from Bourne, MA /
Age 7 and Dad





Dash the Blue Nosed Reindeer and the Dot Claus

"We used a lot of our imagination and fantasy. We love to play with LEGO®, and we like to build our own ideas, not from the books. That's why we love to combine Dash & Dot with LEGO®."

by Max and Lieke Oudejans from The Netherlands / Ages 6 and 8



Terminator Dash

[See the Video](#)

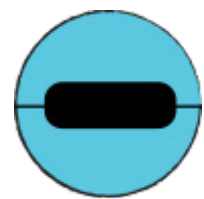
"We used an old LEGO® missile launcher and some LEGO® technics. The tricky bit was figuring out a way to trigger the launch. Originally we mounted in the head, and the problem was any lever would throw the launcher's aim off. So we went for it on the body and had head movement trigger."

by Ocelot from San Francisco, CA / Age 7 and Dad

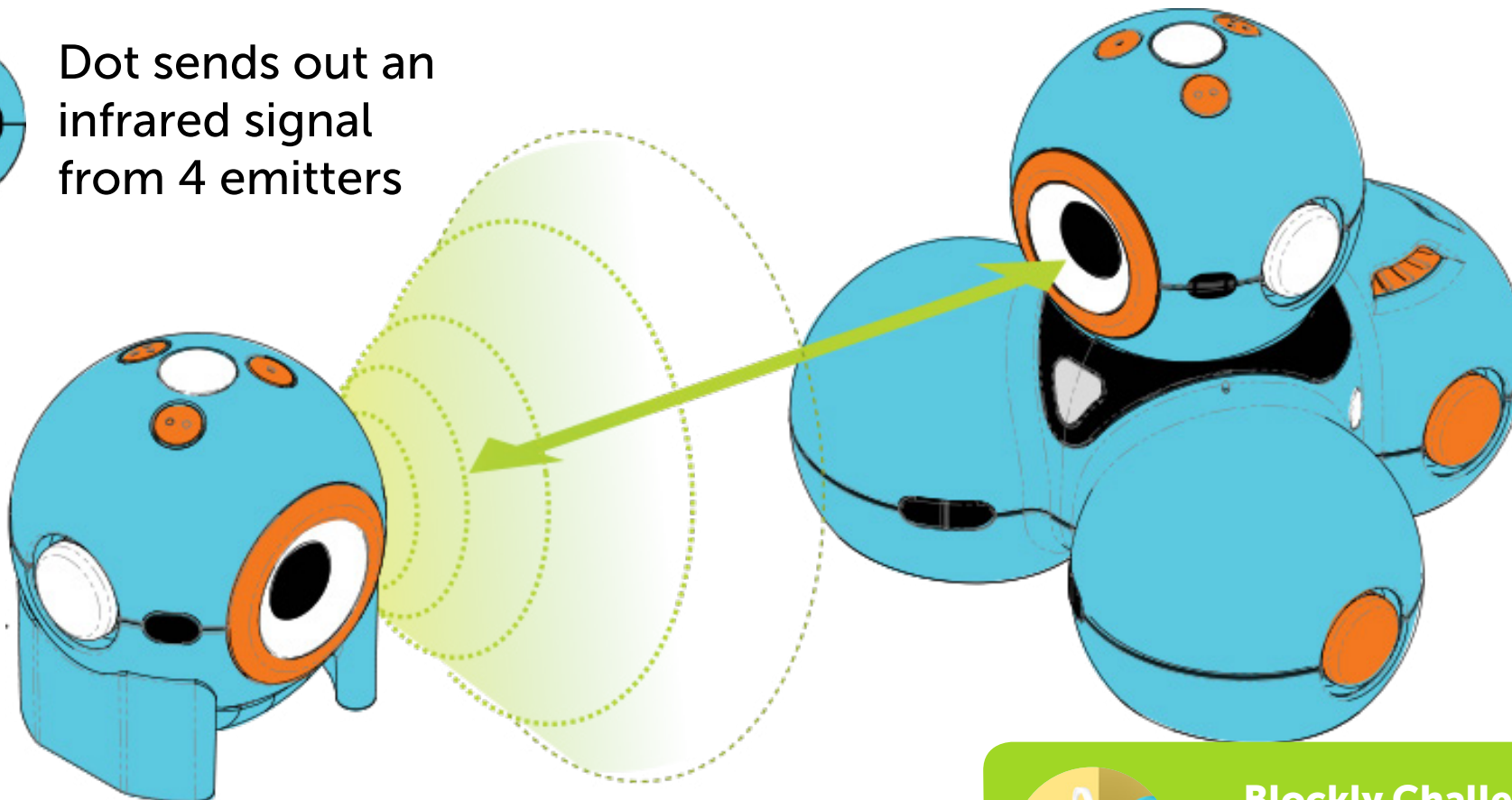
Ask Dash:

Dash, How do you see Dot?

Dot sends out a signal just like your remote control sends out a signal to turn on your TV. The signal is an infrared signal that turns on and off in a pattern that tells me that it's Dot. Kind of like morse code! You can program me to watch for Dot's signals from inside of my eye!



Dot sends out an infrared signal from 4 emitters



My eye has a receiver that detects Dot's signal



Blockly Challenge:

Can you figure out how to make me say "hi" when I see Dot?

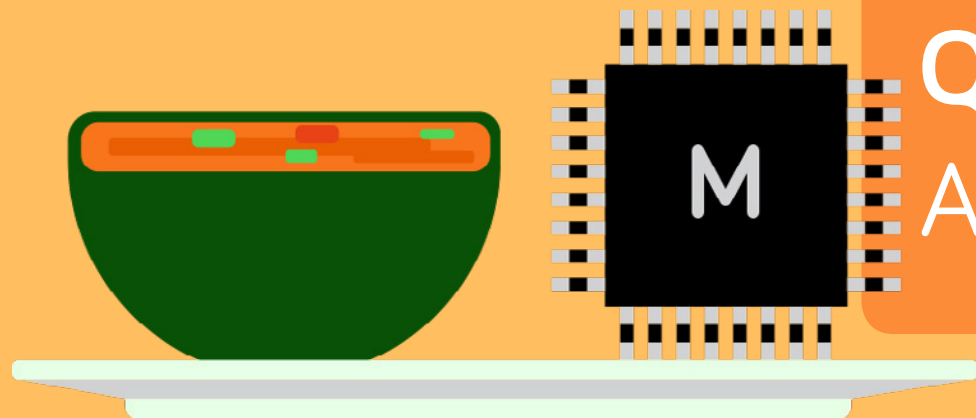
Do you have a question for Dash or Dot? [Submit it here!](#)

The Funny Corner



Q: Why couldn't the boy robot find the girl robot?

A: He couldn't sensor.




Q: What is a robot's favorite snack?

A: Microchips and Salsa

Q: Why did the robot get into a fight?

A: It had a chip on its shoulder.

Want your joke to be featured in the next Wonder Magazine? Send it to ideas@makewonder.com!



In the Classroom: Rolling for Code with Dash & Dot



Susan, an elementary school technology teacher in Nebraska, has been using Dash & Dot in her classroom! In this issue of Wonder Magazine, she shares a lesson that teaches the basics of sequencing and algorithms.

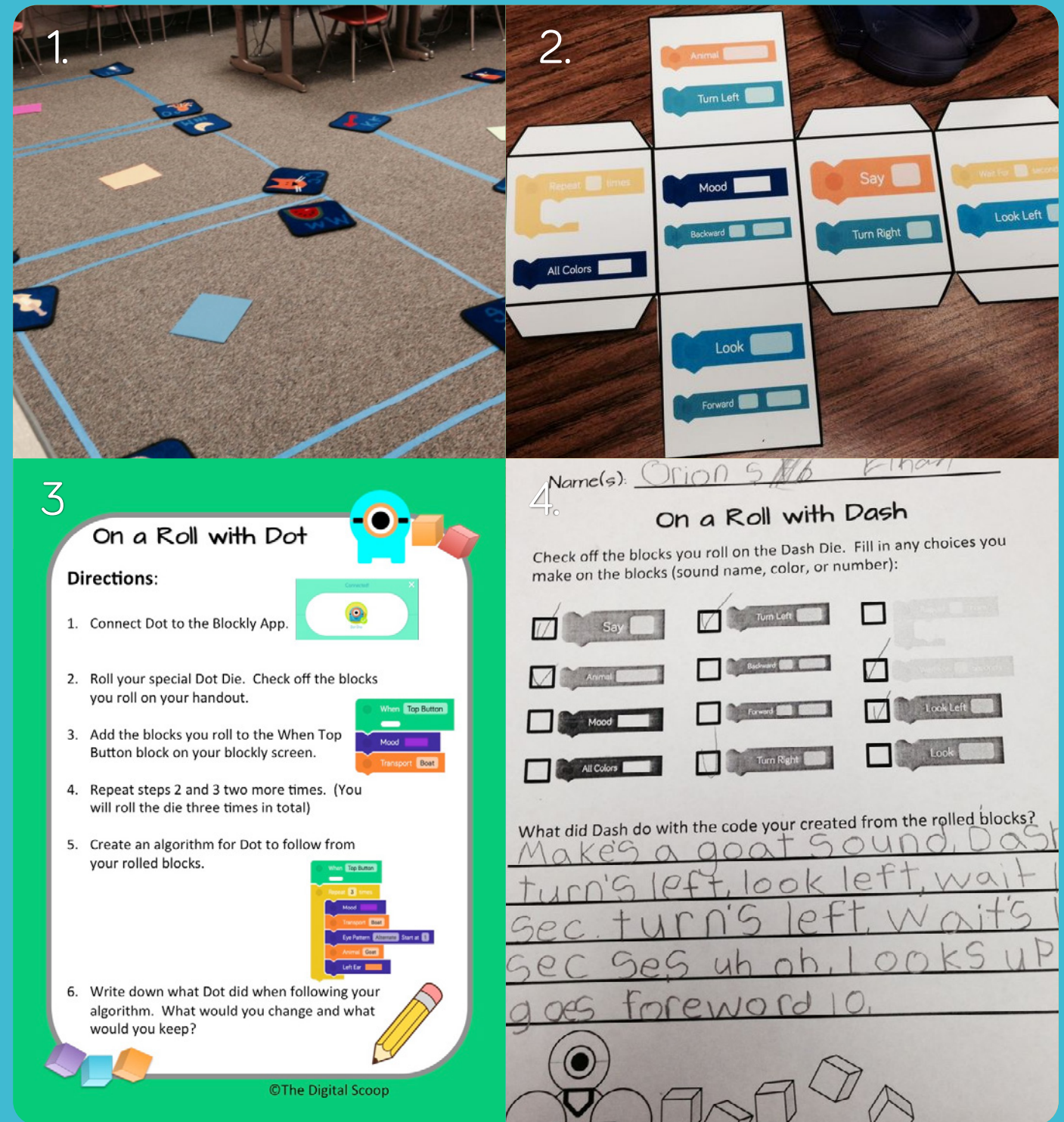
In the Classroom

“Today was my first full day of exploring Dash & Dot, the Wonder Workshop robots, with my students in grades K-5. It was a **FABULOUS** day full of ah-ha moments, smiles, cooperative learning, and critical thinking.”

Set up

- 1 Put **squares on the floor** for each group.
- 2 Create **printable dice** with code blocks from the Blockly app.
- 3 Give **Groups of two** a Dash or Dot and instructions to roll their code.
- 4 Once they became familiar with the blocks, they created **new code** of their own design.

Check out Susan's blog, [The Digital Scoop](#), for more detailed instructions and materials. This is a creative way to introduce students to Blockly and inspire them to start remixing the blocks!



Are you a teacher using Dash & Dot in your classroom?

We are still in the beginning phases of providing resources for teachers. Email us at teachers@makewonder.com to introduce yourself, get updates on our curriculum, and join our teacher community!

Hello everyone,

We hope that you are having fun in your first few weeks of playing with Dash & Dot! We're excited to be launching the first issue of Wonder Magazine, the home of new play ideas, contributions from the community, and Dash & Dot's new adventures.

This issue is all about getting to know Dash & Dot, starting with the story of where they came from. It's an introduction to our applications with tips on how to get the most out of each one. We wanted everyone to be able to build creative projects on top of the robots, so we included Building Brick Extensions that work with LEGO® bricks in every Dash box as a special gift. Many of the featured play ideas from our community were inspired by building with LEGO®!

Every two weeks, expect a new issue of Wonder Magazine in your inbox. We recommend that you print it out or share it with your kids as they play! Please also feel free to submit your projects in the **Wonderful Projects** section and questions in **Ask Dash & Dot**.

This magazine is for you and all the other kids learning to program and play, so if you have any feedback or ideas just email us at ideas@makewonder.com. We hope to bring you inspiration, learning, and fun.



All my best,

June from Wonder Workshop



makewonder.com