WINTER WONDERLAND

Up for a Challenge?

Dashing Through the Snow!
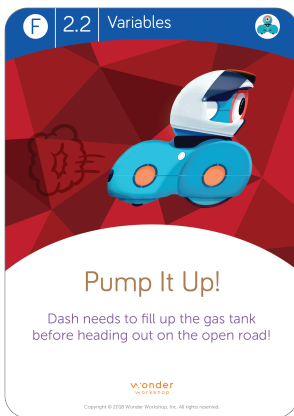
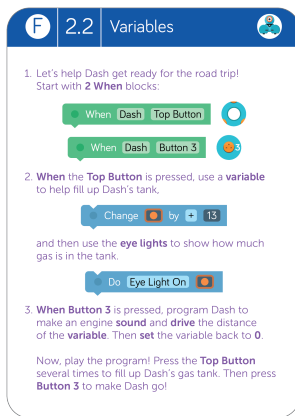**MATERIALS**

Dash robot

Blockly app

Dash Challenge Card F 2.2

F 2.2 Variables

Pump It Up!

Dash needs to fill up the gas tank before heading out on the open road!

F 2.2 Variables

1. Let's help Dash get ready for the road trip! Start with **2 When** blocks:

   When Dash Top Button
   When Dash Button 3

2. **When** the **Top Button** is pressed, use a **variable** to help fill up Dash's tank,

   Change by + 13

   and then use the **eye lights** to show how much gas is in the tank.

   Do Eye Light On

3. **When Button 3** is pressed, program Dash to make an engine **sound** and **drive** the distance of the **variable**. Then **set** the variable back to **0**.

   Now, play the program! Press the **Top Button** several times to fill up Dash's gas tank. Then press **Button 3** to make Dash go!
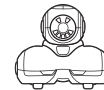
STEPS

1 Use the "Road Trip" Dash Challenge Card to create a sequence of commands for Dash.

2 Open the Blockly app on your compatible device* and create a new program.

3 Follow the instructions on the Challenge Card by dragging the block commands onto your screen. Connect them in order below the START block.

4 Be creative and add your own animations or sounds/voice recordings along the way.

5 Press the green PLAY button to test your program.
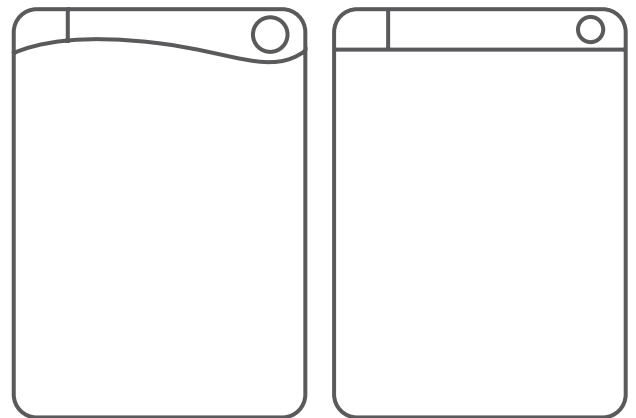
What Can You Do with Cue?

MATERIALS

Cue robot

Cue app

Blank Challenge Card

STEPS

1 Take a look at the "Road Trip" Dash Challenge Card.

2 Create your own Challenge Card outlining a similar robot road trip using variables for Cue.

3 On the front side, add an image with a title and problem statement. On the back, outline your challenge in simple steps!

4 Open the Cue app on your compatible device*.

5 Share away!

Record a video of Dash or Cue running your program successfully.
Share your video on Twitter @WonderWorkshop with the hashtag #FunWithWonder.

wonder workshop

Cut out the Dash Challenge Card and fold in half or glue back to back.

F | 2.2 | Variables

Pump It Up!

Dash needs to fill up the gas tank before heading out on the open road!

w:onder workshop

F | 2.2 | Variables

1. Let's help Dash get ready for the road trip! Start with **2 When** blocks:

   When | Dash | Top Button

   When | Dash | Button 3

2. **When** the **Top Button** is pressed, use a **variable** to help fill up Dash's tank,

   Change 🔴 by + 13

   and then use the **eye lights** to show how much gas is in the tank.

   Do | Eye Light On 🔴

3. **When Button 3** is pressed, program Dash to make an engine **sound** and **drive** the distance of the **variable**. Then **set** the variable back to **0**.

   Now, play the program! Press the **Top Button** several times to fill up Dash's gas tank. Then press **Button 3** to make Dash go!

Design your own Challenge Card. Cut and fold/glue when you are done.

w:onder workshop

Now Let's Get Creative!

Use your coding skills and Sketch Kit to create a winterscape showing a winter themed scene.
What would Dash and Cue see? Perhaps there would be a snowman, a mitten, or a snowflake falling from a cloud.
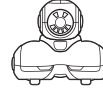
MATERIALS

Dash **+** Blockly app *OR* Wonder app *OR* Cue **+** Cue app

Sketch Kit

Sketch Kit Whiteboard Mat or large piece of butcher paper

Device to take photos or videos

STEPS

1. Brainstorm different images that represent winter to you.
2. Attach the Sketch Kit to Dash or Cue (https://www.makewonder.com/play/setup/#sketch_kit).
3. Snap in a dry erase marker.
4. Program your robot to draw your winterscape.

LEVEL UP!

Record your robot sketching out the winterscape step by step.
Use a simple video editing or slideshow app such as iMovie or Animoto to put your photos or videos together and add some festive music.

❄ VOCABULARY ❄

Variable A placeholder for a piece of information that can change.

Record a video of Dash or Cue running your program successfully.
Share your video on Twitter @WonderWorkshop with the hashtag #FunWithWonder.

wonder
workshop

Time to Go Offline!

Create a comic strip of Dash, Dot, and Cue in the real world. Give them a real-world problem to tackle. How would they solve it together?
Use drawings, speech bubbles, and descriptive copy to bring your comic strip to life.

Create six scenes that show a beginning, middle, and end to your story. Consider storyboarding your ideas here and then using a digital animation tool to add some multimedia dimension to your comic.
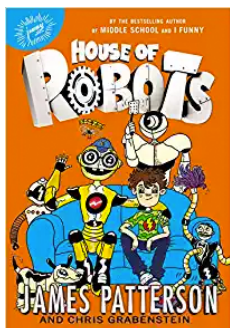
Want more free resources?
Go to **www.makewonder.com** to discover more activities and lesson plans, plus special savings!

wonder
workshop

4

Recommended Reading

House of Robots
by James Patterson

Take a look at our recommended book.

Have it heard about it before?

Do check out our other recommended picture and chapters books that have to do with coding and robotics at:
www.makewonder.com/blog/stem-recommended-reading-list

How many books on the list have you read?

Color in our robot's eye to show how many books you've read:

❄ **FUN FACT** ❄

Today, there are more than a million robots used in industries across the world - and almost half are used in Japan!

Want more free resources?

Go to **www.makewonder.com** to discover more activities and lesson plans, plus special savings!

w·onder
workshop

5