

wonder workshop

Officer Dash Challenge

Activity Guide



Officer Dash Challenge

Transform Dash into a police officer and stop the fugitive Dot!

Club Leader Notes

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Objectives

Kids will:

- Learn new ways to program Dash to see and react to Dot.
- Create conditional statements using Wonder.
- Learn how to program complex searching behaviors for Dash.

Materials & Prep

Required



Dash



Dot

Optional

- Decorations and/or props for the police officer and fugitive.

Time Required



30 minutes

Concepts Covered

- Sequences
- Conditional Statements
- Beacon
- Cues and Behaviors



Dash or Dot Seen



Move To



Spin To



Move



Light: Blue



Light: Red



Moving Basics



Stop



Wait



Head Pan



Instant

Warm Up

- Practice using the **Dash or Dot Seen** cue. The beacon only works if Dot is turned on, but Dot doesn't need to be paired to the app.
- Show these videos to any Wonder beginners:



All About Cues



Creating & Deleting States



The Dash or Dot Seen Cue



The Move and Stop Behaviors

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Level 1

Officer Dash finds the fugitive Dot and blasts the siren.

- Download the starter program using this key: **kfmw**
- Make sure Dot is turned on and placed in Dash's direct path (at least 3 feet away). Then run the program on Dash.
- Dash will move forward until detecting Dot and blasting the siren.

Level 2

Officer Dash finds the fugitive Dot on top of a short tower and blasts the siren, then rams into the tower to knock it down.

- Put Dot on top of a tower made of blocks or something else Dash can easily knock down. Encourage the kids to experiment with the height of the tower. If the tower is much taller than Dash, Dash won't be able to see Dot.
- Program Dash to move forward until seeing Dot.
- When Dash sees Dot, Dash should stop and blast the siren for 3 seconds.
- Then Dash should ram the tower.
- **Example solution:** **gr4v**

Level 3

Move the fugitive Dot to a random spot on the floor. Once Officer Dash finds the fugitive, Dash will patrol in a circle around Dot.

- Change the program so that Dash moves around the floor in different directions, constantly searching for Dot. The **Moving Basics** behavior is useful here.
- It's helpful to stack 2 cues to get Dash out of the spin **after 3 seconds** or **when Dot is spotted**. See the solution program to see how to set this up.
- When Dash finds Dot, Dash should move in a circle around Dot and blast the siren while flashing the blue and red lights.
- **Example solution:** **vppe**

Tips

- This activity works best when Dot is face up.

Notes:

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Level 1

Officer Dash finds the fugitive Dot!

- ☐ Download the starter program using this key: **kfmw**
- ☐ Turn Dot on. Place Dot in front of Dash, at least 3 feet away.
- ☐ Run the program. When Dash sees Dot, Dash will stop and blast the siren and flash the police lights!

Try these behaviors and cues:



Level 2

Officer Dash finds the fugitive Dot on top of a short tower and has to knock it down!

- ☐ Program Dash to move forward and search for Dot.
- ☐ When Dash sees Dot, Dash should stop and blast the siren!
- ☐ Dash should also flash the blue and red lights.
- ☐ Then Dash should ram into the tower and knock it down. The fugitive has been apprehended!

Try these behaviors and cues:



Level 3

Move the fugitive Dot to a random spot on the floor. Once Officer Dash finds the fugitive, Dash will patrol in a circle around Dot.

- ☐ Change the program so that Dash moves around the floor in different directions, constantly searching for Dot.
- ☐ When Dash finds Dot, Dash should patrol around Dot while blasting the siren and flashing the blue and red lights.

Try these behaviors and cues:



Ideas

- Try loading your program onto Dash so that you don't need to use the app to run it.
- Don't make the tower too tall, or Dash won't be able to see Dot!