Light

Control Dash & Dot's lights to give your program some color! All Colors will light up Dash's ears and chest, or Dot's ears and backlight. Mood will light up Dash's chest or Dot's backlight.

Eye Pattern | **Start at**

The Eye Pattern block indicates the pattern of the 12 LED eye lights in the 1st drop-down and where the pattern starts at in the 2nd drop-down. #1 is at the top of Dash & Dot's eye, and then the numbers increase in a clockwise direction.

Look

Make Dash's head move any way you want! Units refer to degrees. Degree units are absolute, meaning Left 30 sets the head at 30 degrees left from a neutral straight position.

The Look towards Voice block allows you to program Dash's head to look towards the direction of the sound of your voice. This works best in a quiet room with minimal background noise.

Look towards Voice
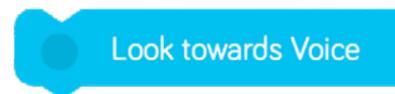
Sound

Dash & Dot love to play sounds—use the drop down menus to add some fun effects to your programs!

Control

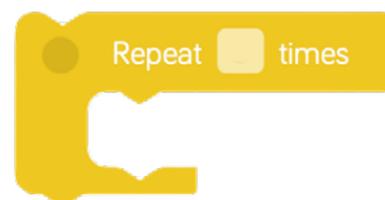Control how Dash & Dot interact with each other and their environment!

Wait For [ ] seconds

Wait For [ ] [ ]

Have Dash & Dot wait for a set period of time before continuing your program.

Dash & Dot will wait for an event to be triggered before moving to execute the rest of the program.

Repeat [ ] times

Dash or Dot will repeat your program for a set number of loops!

Blockly Glossary

Here's the scoop on everything you need to know to use Blockly, a visual drag-and-drop coding tool.

Start

This is where you control how your program will start. Use a block beginning with "When" to indicate the event that will start executing your program. Hint: using both Dash & Dot? Try using a Dot gesture like "Shake" or "Toss" and add movement blocks underneath to move Dash around.

When Top Button
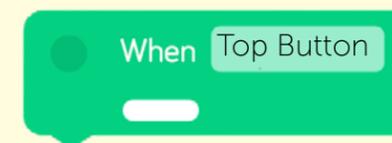
When [ ] [ ]

This block will start running your program when you press the top button on Dash's head or on the bottom left corner of the Blockly screen. Drag and stack additional blocks below a When block to write your program.
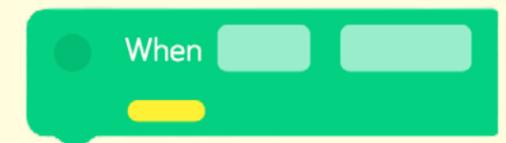
To begin a program with a different event, use the yellow When block. Tap on each drop-down menu to select the event that triggers your program. Then, stack blocks underneath to build and run your program!
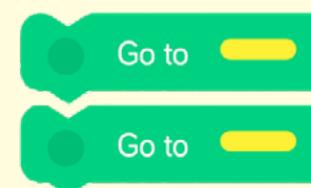
Go to [ ]

Go to [ ]

Using multiple When blocks? Use Go to when you want to repeat a sequence. The yellow or white bar indicates the stack that will repeat. For example, to repeat the sequence under When Top Button, use the white Go to block.

Drive

Drive blocks control where and how Dash moves! Forward and Backward blocks use centimeters as units, and turns refer to degrees as the unit of the turn angle.

The Turn to Voice block allows you to program Dash to turn towards the sound of your voice. This works best in a quiet room with minimal background noise.

Turn to Voice

Set Wheel Speed
**Left [ ] [ ]**
Right [ ] [ ]
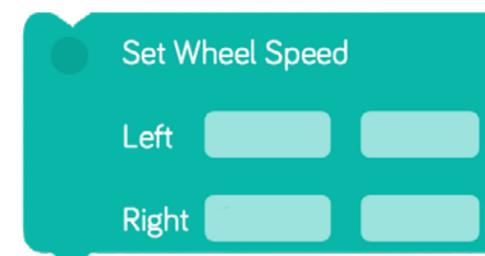
The Set Wheel Speed block gives you individual control of Dash's wheels. Forward and backward at the same speed makes Dash spin. Forward at different speeds makes Dash go in an arc. Try different combinations out! Note: to stop Dash's wheels add the Stop Wheels block.

Repeat until

Dash & Dot will repeat the program inside the brackets until the event in the drop-down menu on the right is triggered.
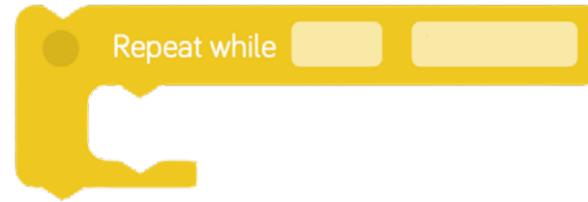
Repeat while

Your program will repeat the whole time while the event in the drop-down menu on the right is being triggered.

If
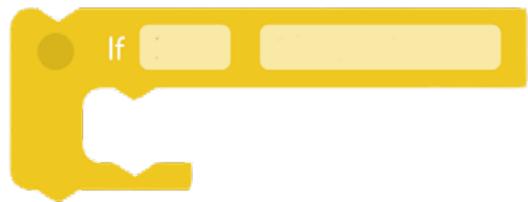
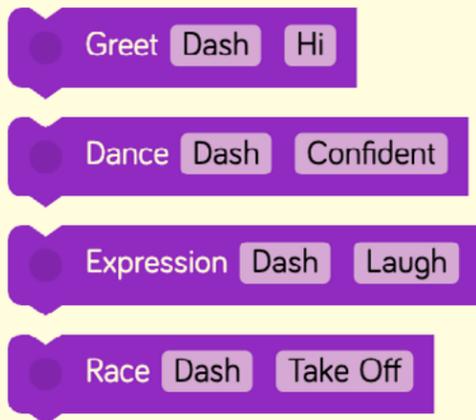Dash or Dot will run the program inside the bracket if the condition in the right drop down menu is present.

Variables

Use this section to take your coding to a move advanced level with different types of variable blocks. You will use fruit image to represent different variables in Blockly.

Set ● = 0

Change ● by + 0

If ● > 0

If ● > 0
Else

Do Drive ● cm

Repeat while ● > 0
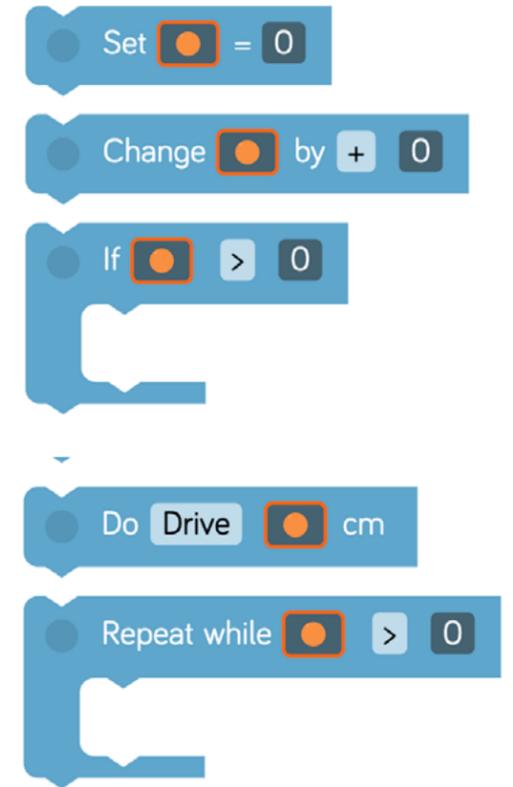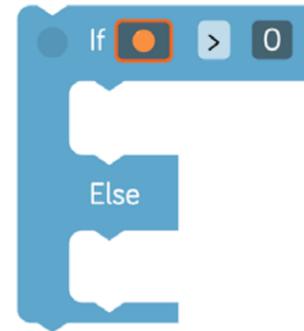
Animations

Use this section to add blocks that help code Dash to use animations.

Greet Dash Hi

Dance Dash Confident

Expression Dash Laugh

Race Dash Take Off

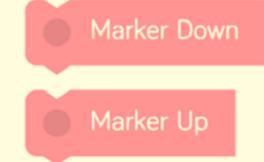# Accessories

Use this section to access blocks that support with coding Dash to use accessories like launcher, gripper, and sketch kit.

Launcher

Load Launcher Left

Launch with 70 % Power

? Sketch Kit

Marker Down

Marker Up

? Gripper Building Kit

Gripper Open

Gripper Close