



*QUICK START GUIDE*

GETTING STARTED

# CHARGE YOUR ROBOT

Plug in your  
cradle with the  
USB-C cable.

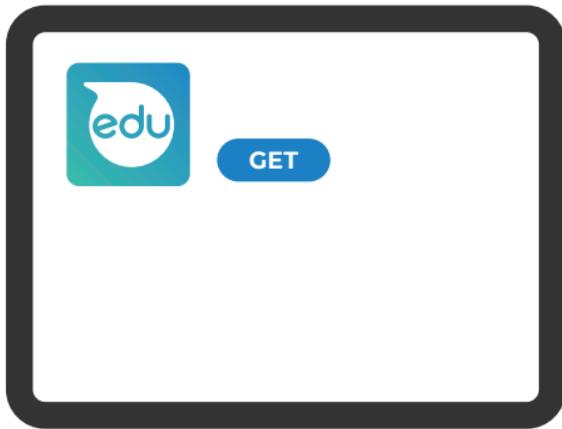
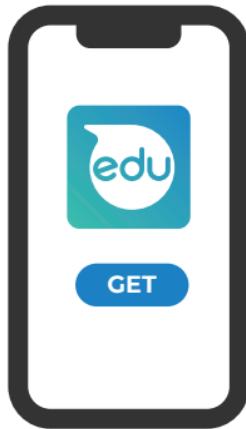


*See my lights?  
I'm ON!*

Put BOLT+ on the  
cradle to turn it on  
for the first time.

GETTING STARTED

# GET THE PROGRAMMING APP



Go to [sphero.cc/edu-d](https://sphero.cc/edu-d)

# GETTING STARTED

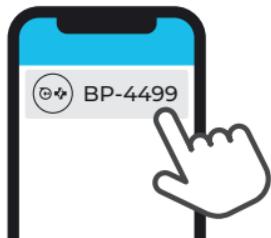
# CONNECT



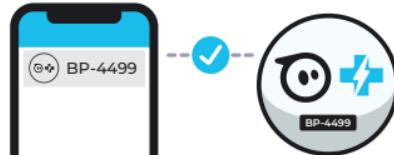
**1.** Take BOLT+ off the cradle.

**2.** Select Connect.

**3.** Select BOLT+ as your robot type.



**4.** Find your robot ID in the app.



**5.** Connect!

*Did I turn off?  
Shake to turn ON!*



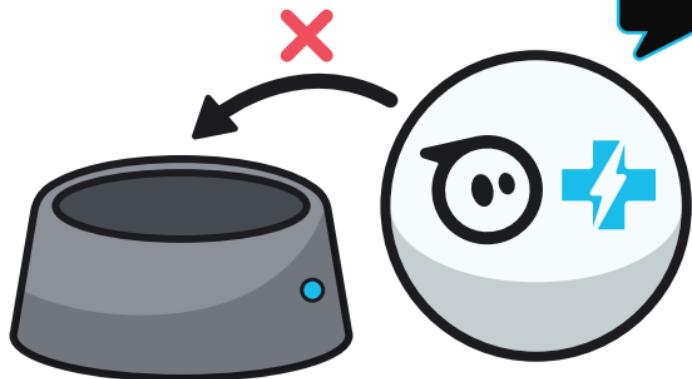
GETTING STARTED

# YOU'RE CONNECTED!

Select  to check your battery level.



*I'm ready to  
ROLL!*



Placing BOLT+ back on the cradle will disconnect it from your device.

## GETTING STARTED

# AIM



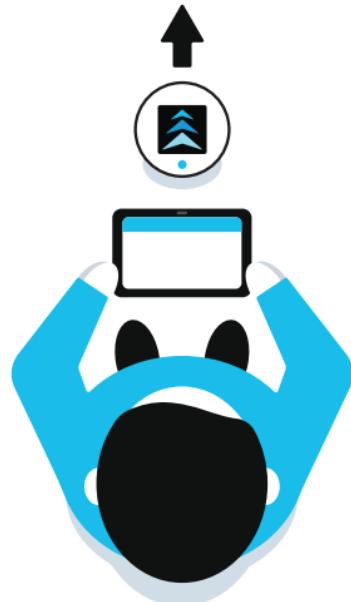
1. Select **Drive**.



2. Select **Aim**.

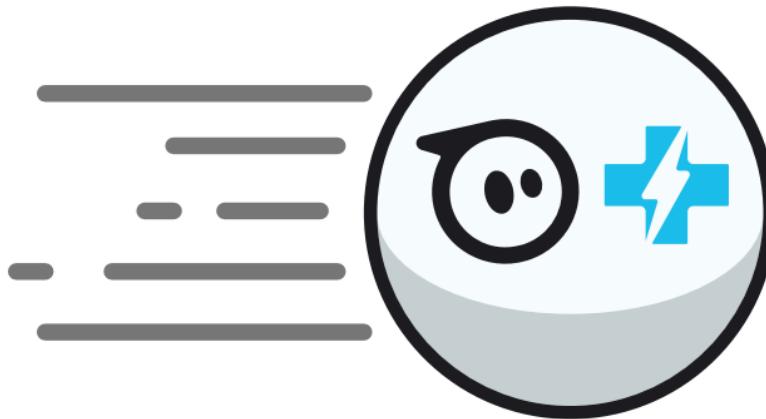


3. Aim BOLT+ in the same direction as your body.



## ***Take your robot for a spin!***

Try controlling your robot with the **speed** and **color** controls.



Depending on your device, BOLT+ can be driven in joystick or keyboard mode.

# GETTING STARTED

# PROGRAMS



My First Program

**1.** Select New Program.



**3.** Choose a **program type**.

**2.** Name your Program.



**4.** Choose **BOLT+**.

# STARTER PROGRAMS

1. Draw
2. Movements
3. Lights
4. Display
5. Matrix
6. Sounds
7. Controls
8. Drive
9. Events: Buttons
10. Events: Lights
11. Loops & Operators
12. Events: Collisions

***Build the programs on the following pages to learn about what I can do!***



STARTER PROGRAM #1

# DRAW

PROGRAM



Press  Start  
to run the program.

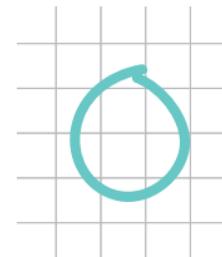
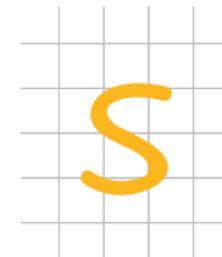
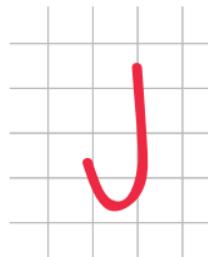
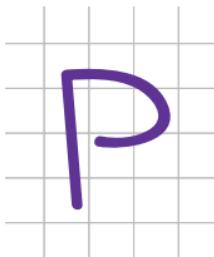




program type: draw



1. Draw other letters.
2. Change the **color** and **speed** of the lines.



STARTER PROGRAM #2

# MOVEMENTS

 PROGRAM

on start program

roll  at  max speed for 

Select a **number** to change.   
Press  to watch me roll!





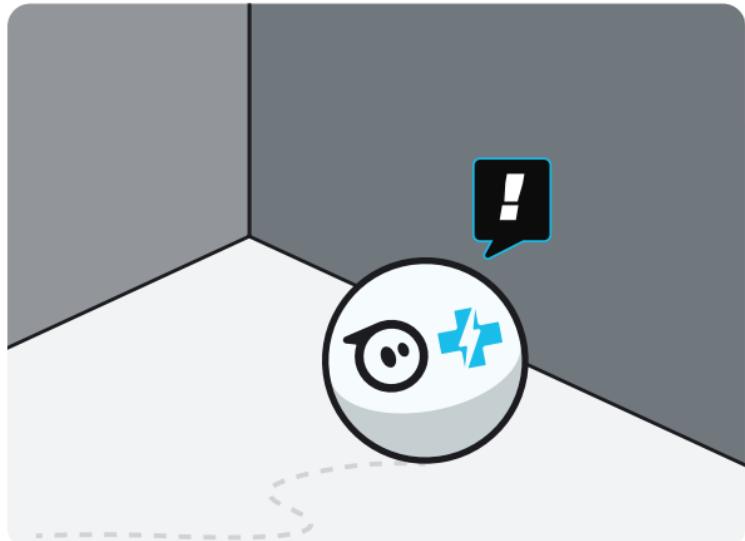
program type: block

 **PLAY**

**1.** Make BOLT+ roll up  
to a wall and **stop**  
before crashing.

**2.** Try the same thing with

roll  $0^\circ$  at 0 speed for 0s



## STARTER PROGRAM #3

# LIGHTS

## PROGRAM

on start program

fade from  to  over 2s

fade from  to  over 2s

**Change an LED Color**  
with the color wheel and dimmer slider.





program type: block

 **PLAY**

Make BOLT+ show all  
the colors in a **rainbow**.



STARTER PROGRAM #4

# DISPLAY

PROGRAM

on start program

display image



Use **search** and  
**category filters**  
to find images.





program type: **block**



1. **Find images for your favorite food, animal, and hobby.**



2. **Replace**  **with**  

Pick your favorite animation.

3. **Replace**  **with** 

Make a message of your own.

## STARTER PROGRAM #5

# MATRIX

## PROGRAM

on start program

matrix animation  loop

matrix animation  loop

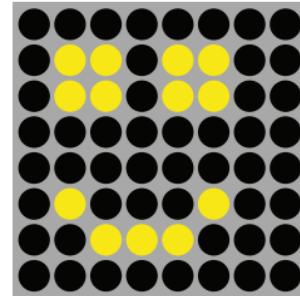
*Tap the **matrix image** and scroll through animations to find a **smiley face**!*





 **PLAY**

**1.** Make your own animation.



**2.** Replace

matrix animation



loop

with

scrolling text

oh hello!

in



at

15 fps

and

wait

Type a **superpower** you wish you had.

## STARTER PROGRAM #6

# SOUNDS

### PROGRAM

```
on start program
  play random sound and wait
  speak ice cream and wait
```

***Sound comes from  
your programming  
device—not me!***





program type: block



**1.** Explore the **different sounds** and try some out!

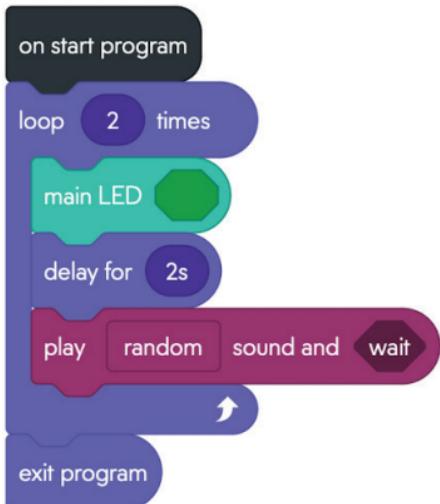
**2.** Type your **own message**.



## STARTER PROGRAM #7

# CONTROLS

## PROGRAM



**delay for [0s]** is really useful! It makes sure blocks have enough time to work.





program type: **block**



**1.** Remove

exit program

What happens when you run your program?

**2.** Play around with the **number** in



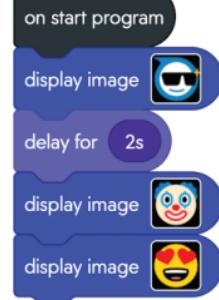
**3.** Try using

delay for

2s

with some of the blocks  
you've already learned about.

What happens with a program like this?



# STARTER PROGRAM #8

# DRIVE

## PROGRAM

```
on start program
  display [Ready, set, drive] in [ ] on [ ]
  drive [on]
  delay for [10s]
  drive [on]
  display animation [ ] loop
```

*You can **drive** me  
while I'm running  
a **program**!*

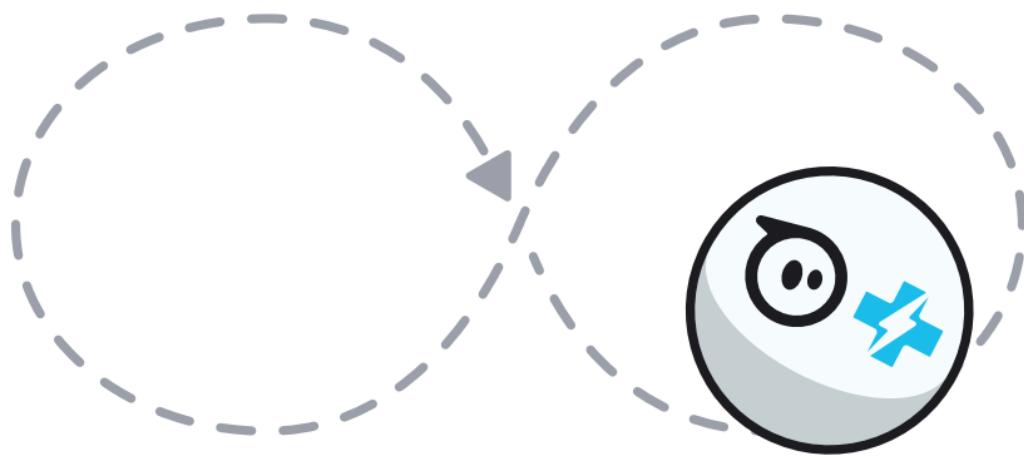




program type: **block**



Drive your BOLT+ in a **figure 8**  
before time runs out.



STARTER PROGRAM #9

# EVENTS: BUTTONS

## PROGRAM

on start program

display [How are you feeling? in  on 

[ on button 1]

display image 

[ on button 2]

display image 

[ on button 3]

display image 

*Where are the buttons?  
Look at the app while  
a program is running!*





program type: **block**

 **PLAY**

Add blocks to go with each **emotion**.

speaker [ ] and wait

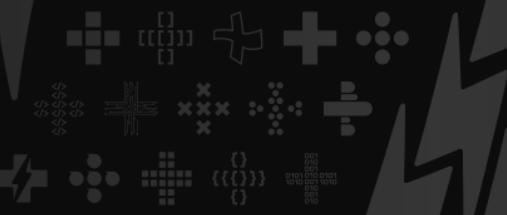
play [random] sound and wait

main LED [ ]

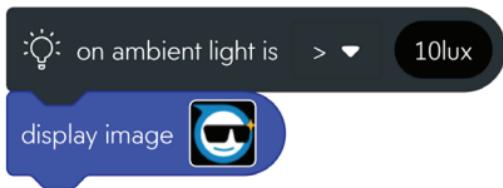
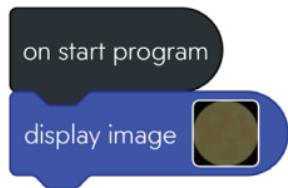
fade from [ ] to [ ] over [ ] 0s

## STARTER PROGRAM #10

# EVENTS: LIGHT



## PROGRAM



***Ambient light is measured in "lux" units - and there are a lot of them!***

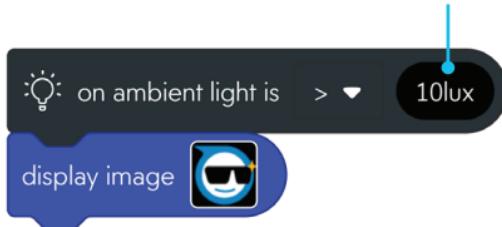




program type: **block**

 **PLAY**

1. Play around with **how many lux** will trigger the **event**:



2. Add **sounds** or **movements** to your program to make things a bit more exciting.

STARTER PROGRAM #11

# LOOPS & OPERATORS

 PROGRAM



***That's a long block!***  
*What happens when you start the program?*

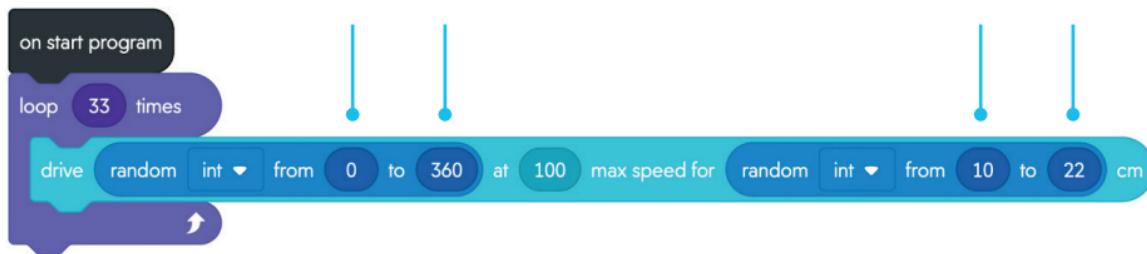




program type: **block**



Play around with **different values** and see what happens to BOLT+.



## STARTER PROGRAM #12

# EVENTS: COLLISIONS

### PROGRAM

```
on start program
loop (33) times
  drive random int from 0 to 360 at 100 max speed for random int from 10 to 22 cm
```

```
on collision
  display animation [explosion v]
  loop
    play explosion sound and wait
    drive on
```

*What happens  
if I **crash**!?*

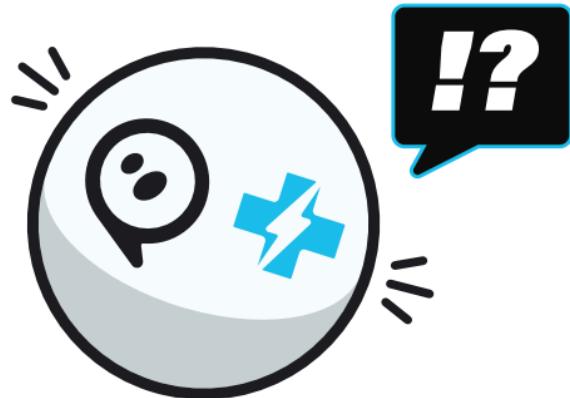




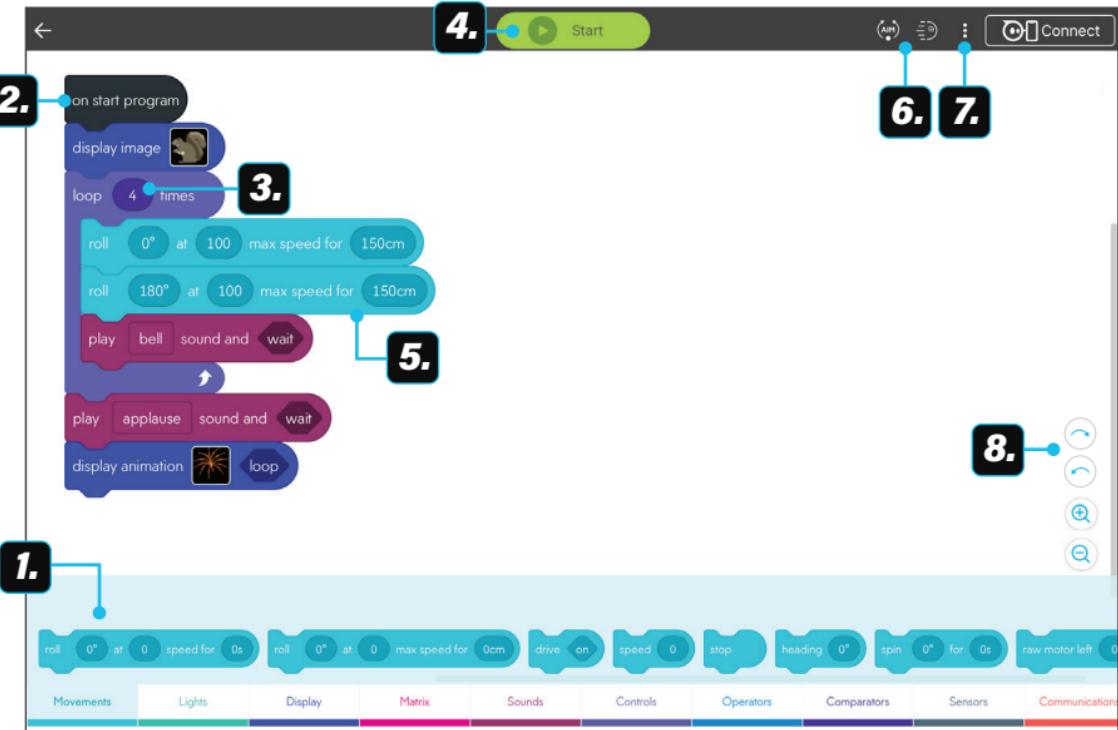
program type: block



1. If BOLT+ **crashes** into something you can take over **driving**.
2. Can you modify the program so that you can only drive for **5 seconds**?



# BLOCK CANVAS GUIDE





1. Drag blocks from the **block library** onto the program canvas.
2. Connect blocks to **on start program**.
3. Select **inputs** to modify a block.
4. Click or tap **Start** to run (execute) a program.
5. Right click or long press on a block for options like **duplicate** and **delete**.
6. **Aim** or **Drive** your BOLT+.
7. Select the three dots to access a menu to view **sensor data**, **JavaScript code**, and **more**.
8. **Undo** or **Redo** last action.

BOLT+ RESOURCES

# LESSON IDEAS



*Are you looking for lesson ideas?*

Check out: [sphero.cc/bplus-lessons](https://sphero.cc/bplus-lessons)

BOLT+ RESOURCES

# SUPPORT



*Need help?*

Check out our support page: [sphero.cc/bplus-support](https://sphero.cc/bplus-support)



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