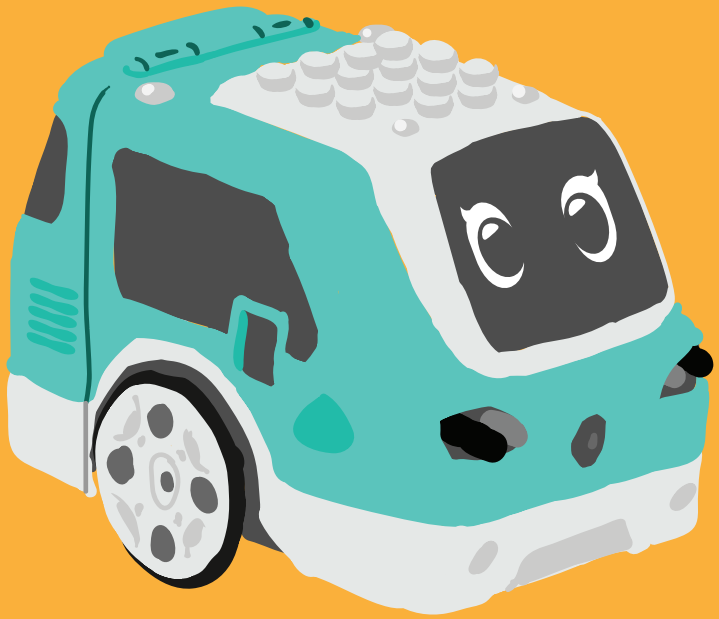
ROBOLINK



Manual

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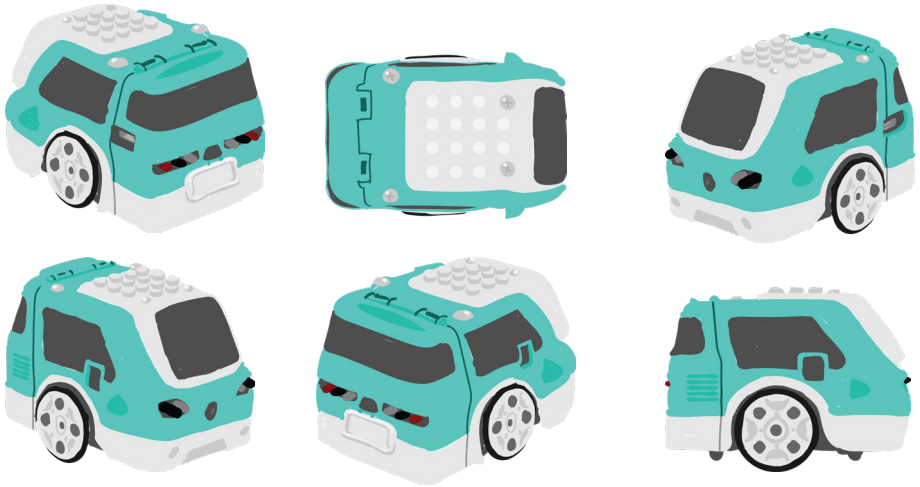
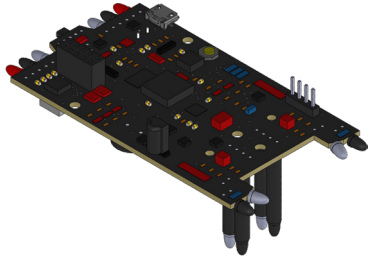
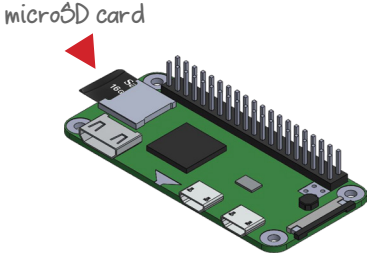


Parts List

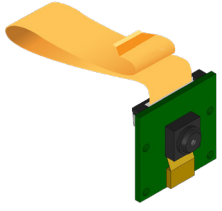
Primary components



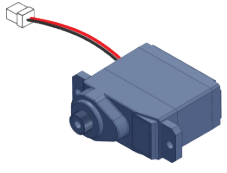
Zumi board



Pi 0 (zero) + microSD card

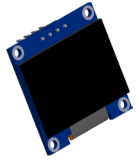


Pi camera



2 motors

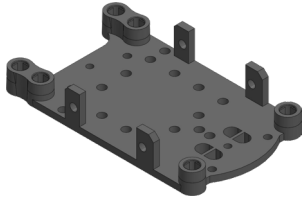
2 wheels



OLED screen

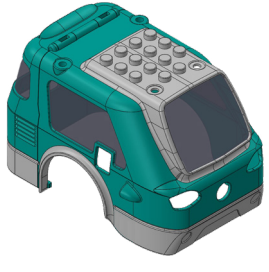
Battery

Structural components



Chassis

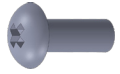
Mounting bracket



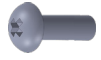
Zumi shell

Fasteners

These are the fasteners you'll need, plus a few extras. If you need more, we've also provided the technical names so you can order them.



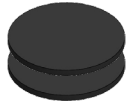
Thick silver bolt (M3x8mm)
8 included, use 6



Thin silver bolt (M2.5x6mm)
6 included, use 4

Mounting bolt (M2x3.75mm)
6 included, use 4

Motor screw
8 included, use 6



Dual lock velcro pads
2 included, use 2

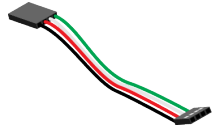
Long plug standoff (M3x25+6mm MF)
2 included, use 2

Long socket standoff (M3x25mm FF)
3 included, use 3

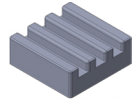
Short plug standoff (M2.5x11+6mm MF)
2 included, use 2

Short socket standoff (M2.5x18mm FF)
2 included, use 2

Other components



Jumper wire



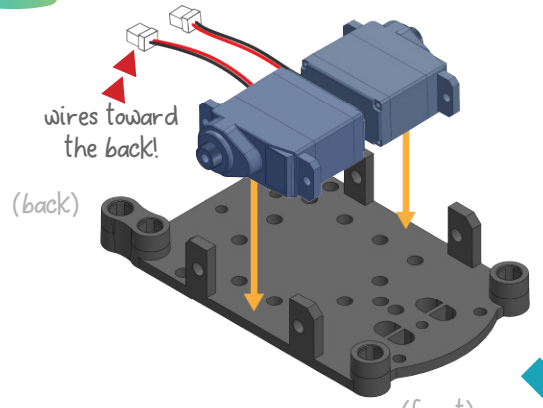
Heatsink

Building Zumi

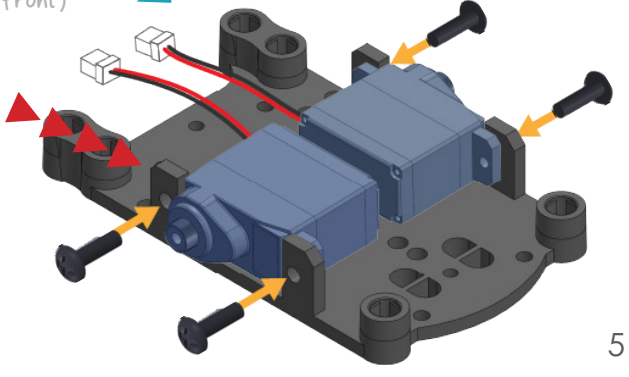
Let's put Zumi together! Before Zumi can start up, she needs to be assembled.

Follow along here, or go to **robolink.com/zumi-getting-started**

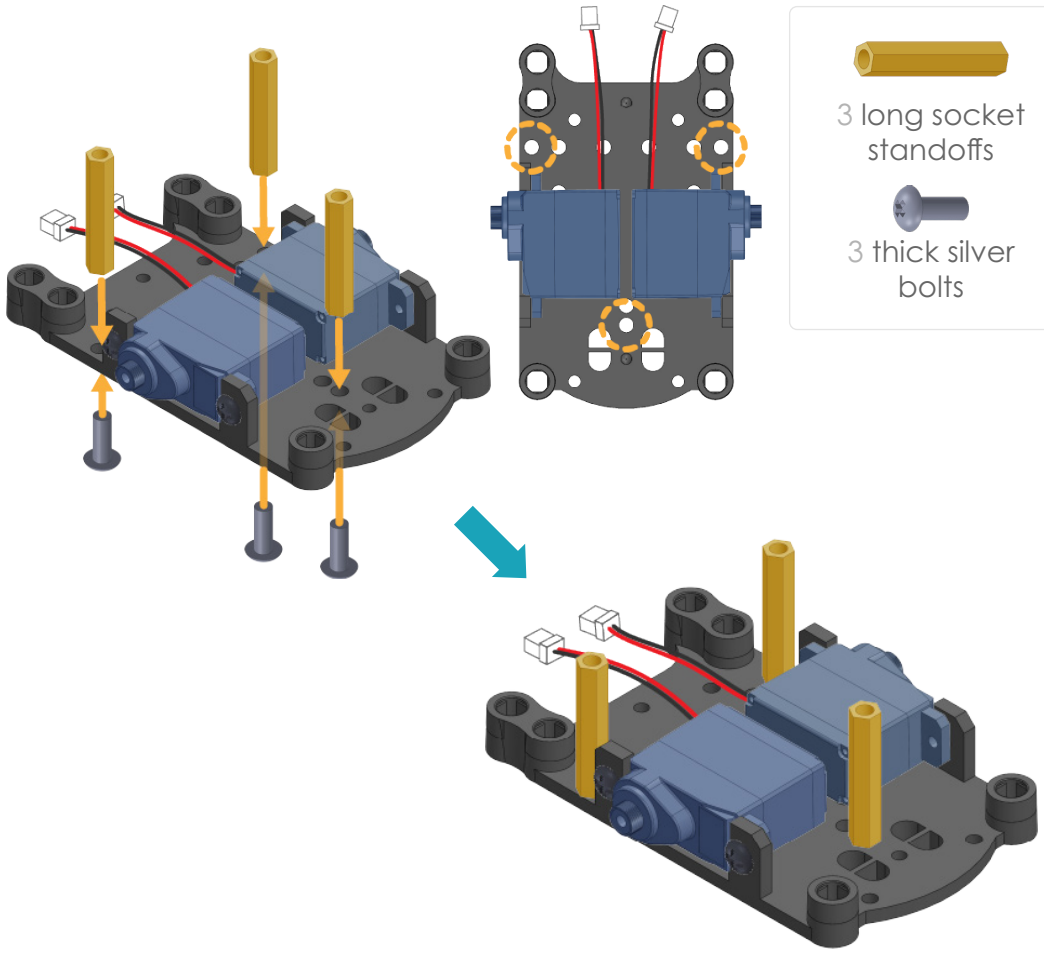
1 Attach motors



TIP! Make sure the arms of the motors are on the **inside** of the chassis arms



2 Add standoffs to the chassis

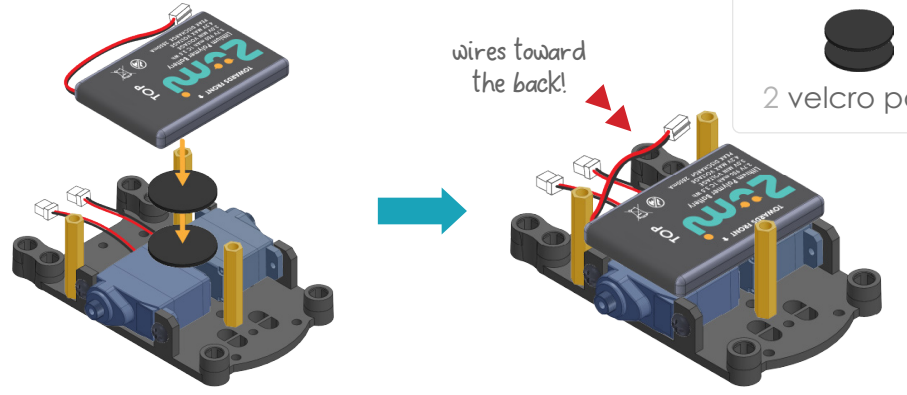


3 long socket standoffs

3 thick silver bolts

3 Attach the velcro and battery

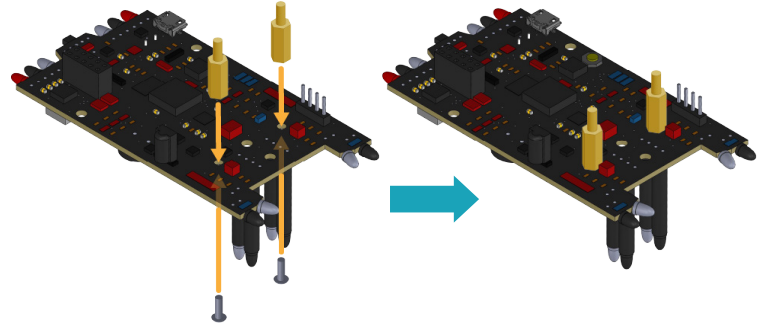
You may want to skip the velcro if you're using Zumi in a classroom, since you may need to swap out batteries and motors more frequently.

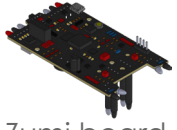


Battery

2 velcro pads

4 Add standoffs to the Zumi board



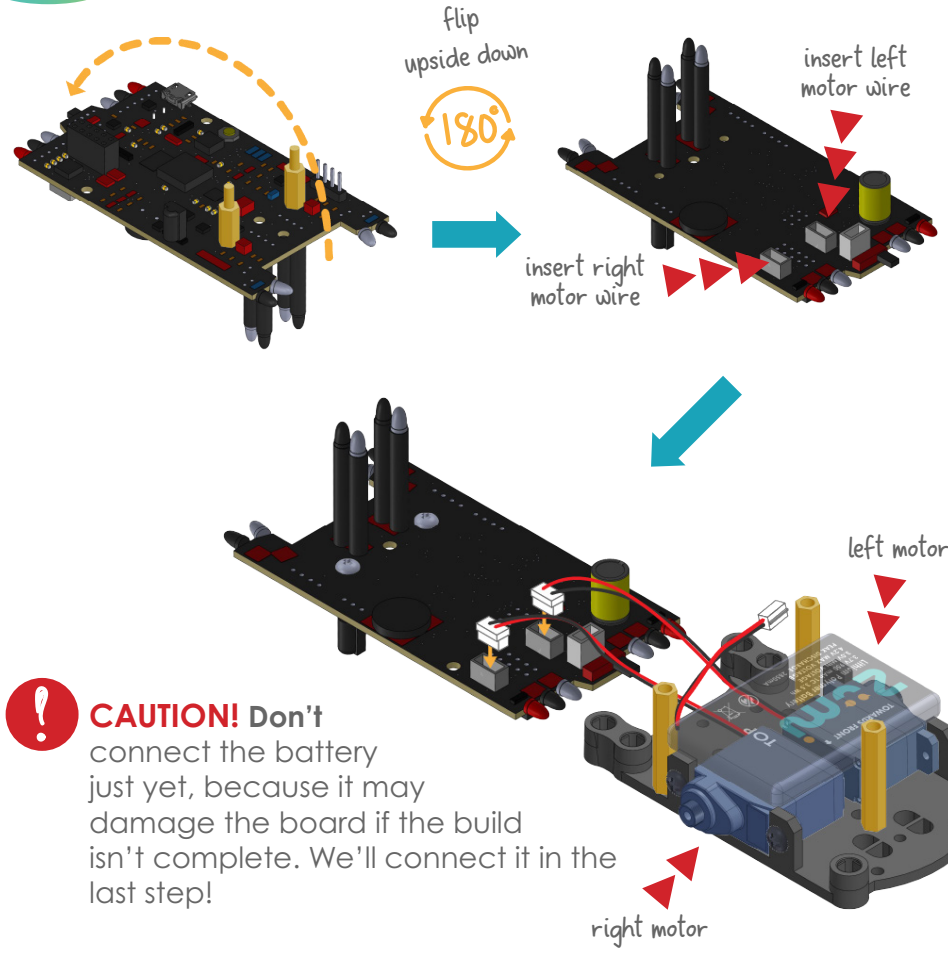


Zumi board

2 short plug standoffs

2 thin silver bolts

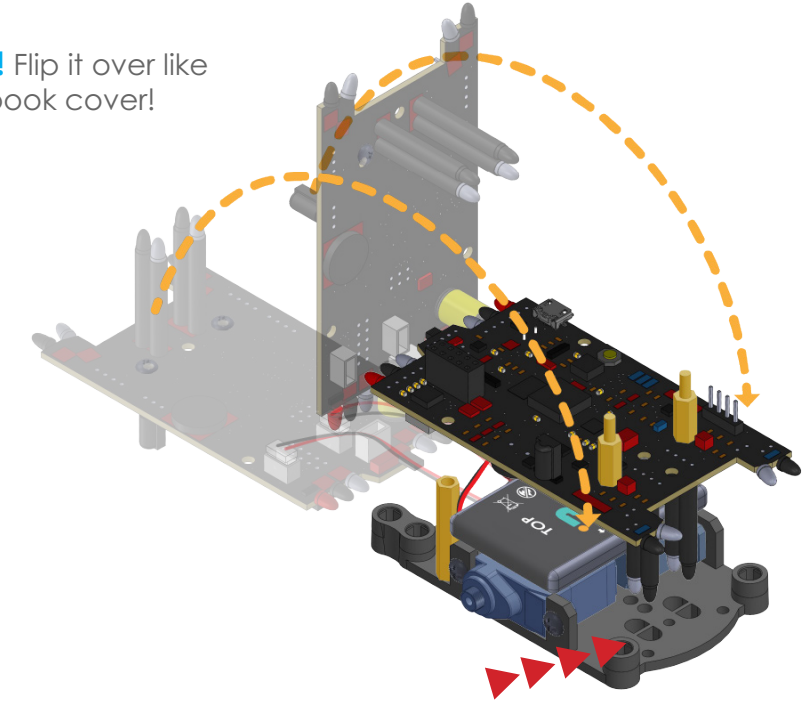
5 Connect *only* the motor wires



CAUTION! Don't connect the battery just yet, because it may damage the board if the build isn't complete. We'll connect it in the last step!

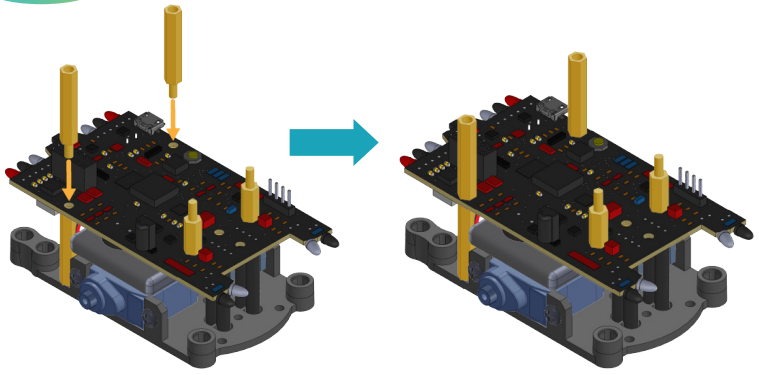
6 Flip the Zumi board on top of the chassis

TIP! Flip it over like a book cover!



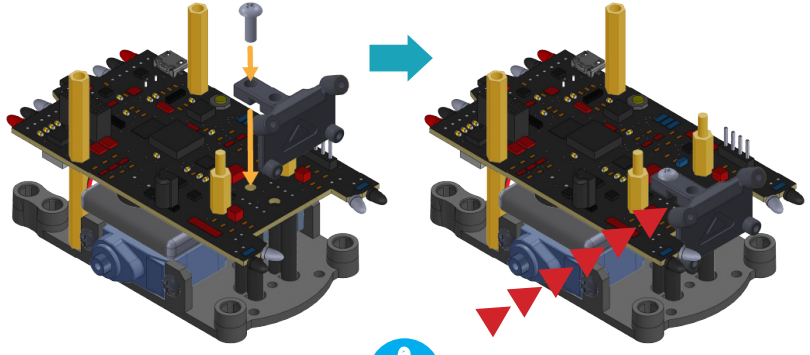
CAUTION! Make sure to line up the four LED tubes with the holes in the chassis. Be careful not to bend them!

7 Add standoffs to the Zumi board



2 long plug standoffs

8 Attach the mounting bracket

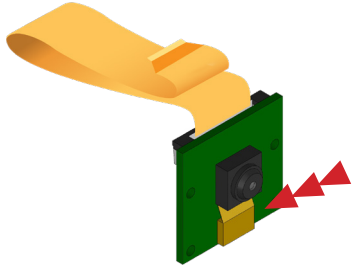


Mounting bracket

1 thick silver bolt

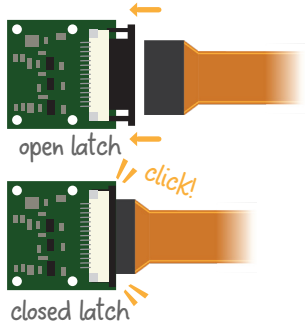
TIP! From the side, check that this part of the bracket is completely flat against the Zumi board.

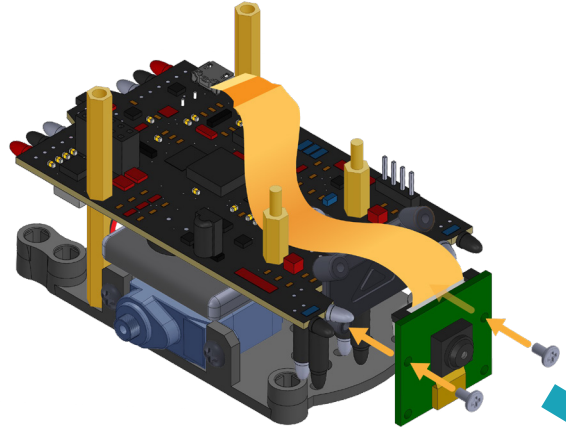
9 Attach the Pi Camera to the mounting bracket



This is a Pi Camera! Zumi uses this to see.

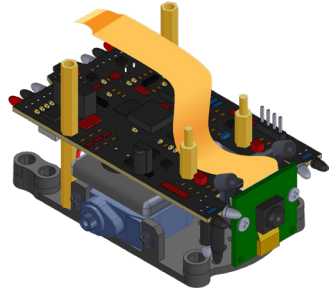
Make sure that the ribbon cable is securely plugged in, and that this piece is pushed in. It should click into place.





Pi Camera

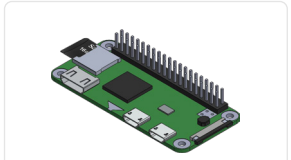
2 mounting bolts



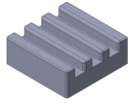
TIP! Make sure you're attaching through the **middle two holes** of the Pi Camera and to the **bottom two holes** of the mounting bracket.

10 Attach the heatsink to the Pi 0

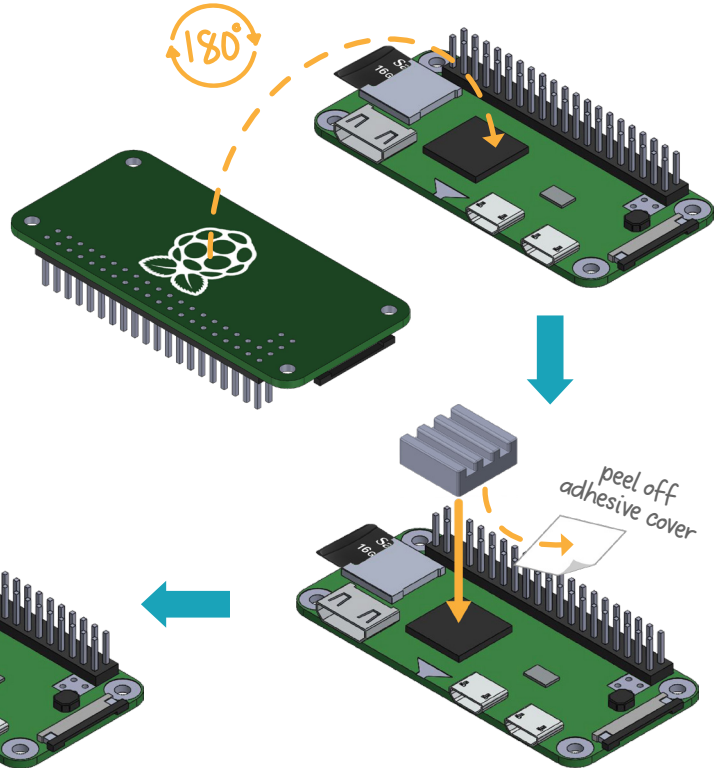
This is a Pi 0, a miniature computer that fits in the palm of your hand—this is Zumi's brain. It has a microSD card plugged into it, which is where her memory is stored. Let's attach a heatsink to keep Zumi nice and cool.



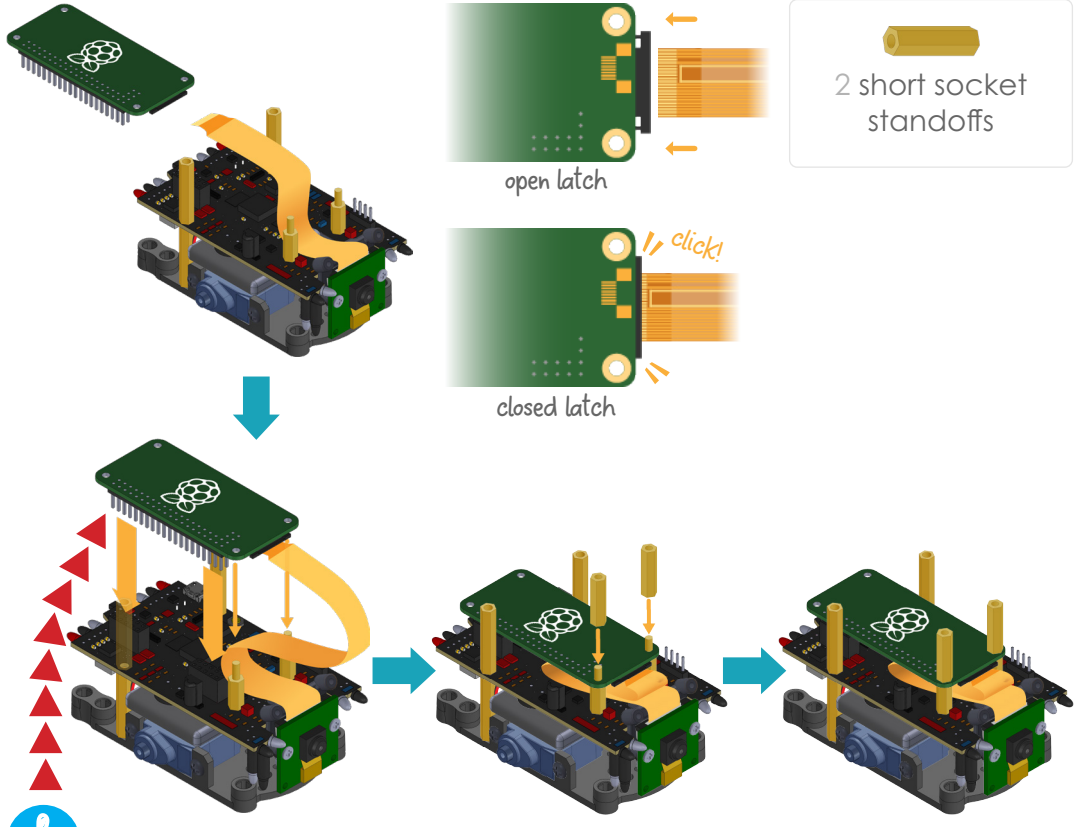
Pi 0 + microSD card



Heatsink



11 Connect the Pi 0 to the Pi Camera, then secure it to the Zumi board

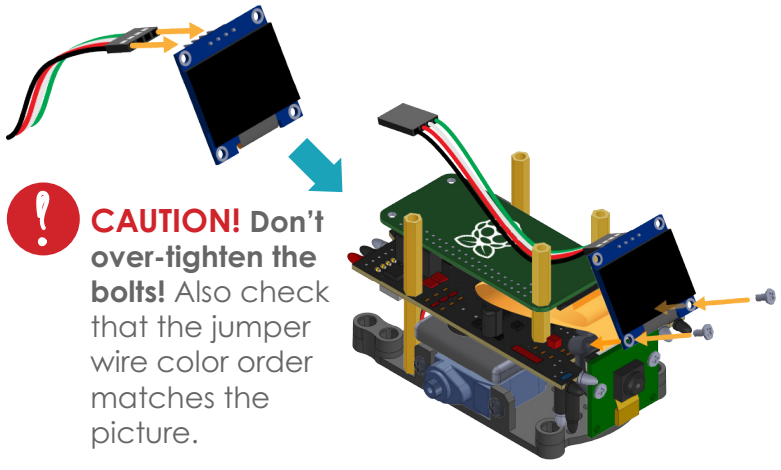


2 short socket standoffs

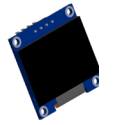
TIP! Align the Pi 0 with the white outline on the black board, so all of the pins align with black sockets.

12 Attach the OLED screen to the mounting bracket

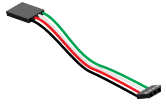
This is the OLED screen. Careful, it's made of glass!



CAUTION! Don't over-tighten the bolts! Also check that the jumper wire color order matches the picture.



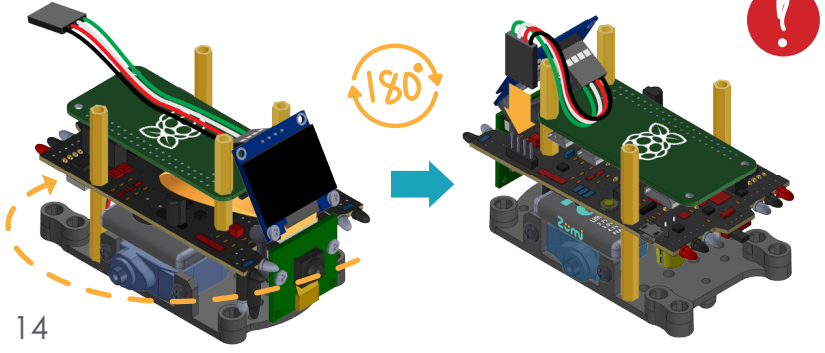
OLED



Jumper wire

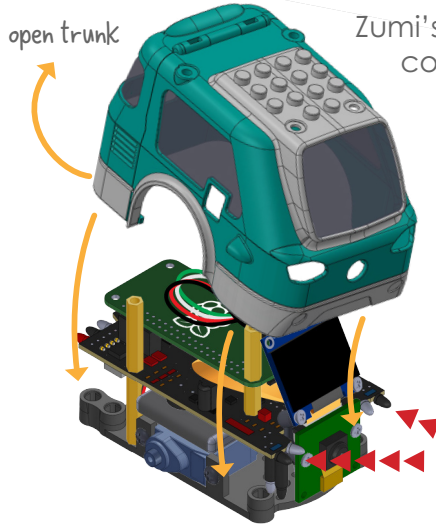
2 mounting bolts

13 Connect the OLED into the Zumi board



CAUTION! Match the jumper wire colors with the picture! Otherwise your screen could get damaged.

14 Attach the shell



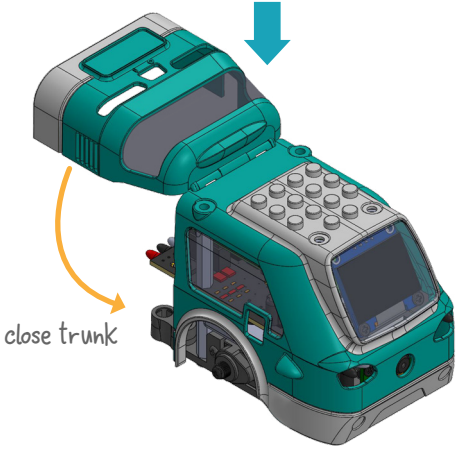
Zumi's shell protects her components from damage. Open the trunk and **watch out for the front LEDs** as you lower the shell over the components.

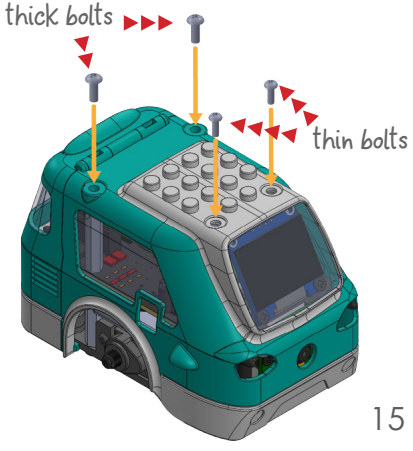
Zumi shell

2 thick silver bolts

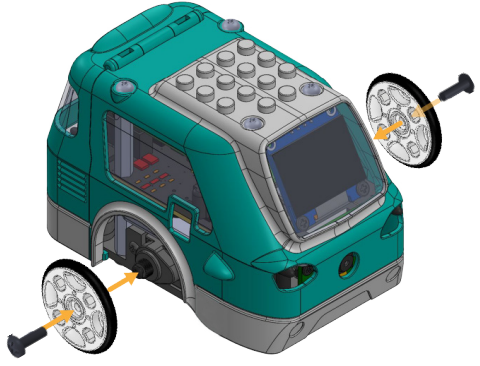
2 thin silver bolts

CAUTION! Be careful not to bend the LEDs when placing the shell on.





15 Attach the wheels

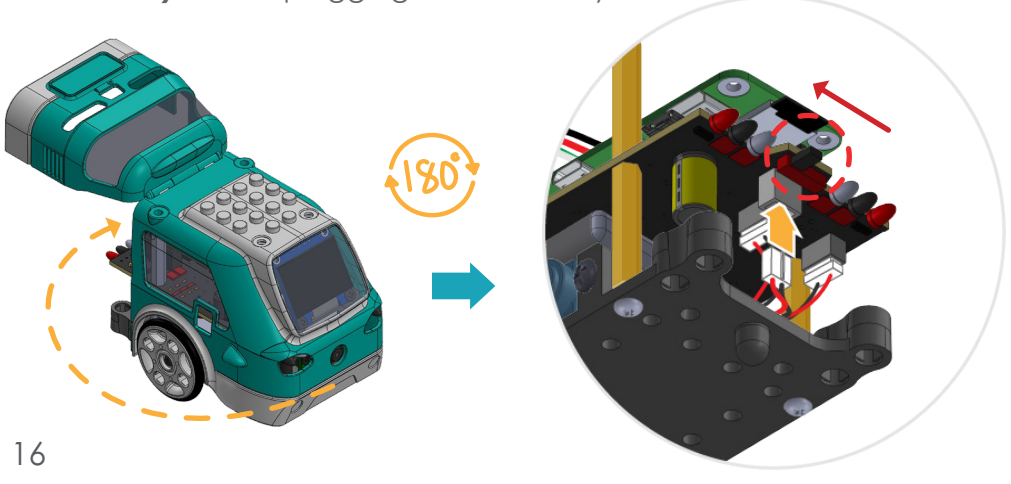


2 wheels

2 motor screws

16 Finally, connect the battery

Make sure the power switch is in the **OFF position (switched to the left)** before plugging in the battery.



You're done!

To get to the dashboard,
you can continue or go here:

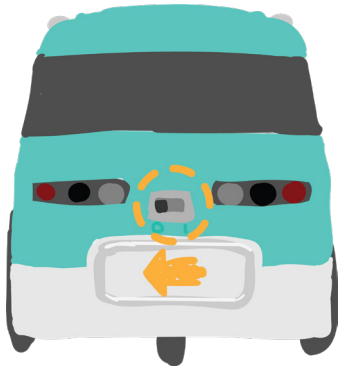
robolink.com/zumi-getting-started

Zumi

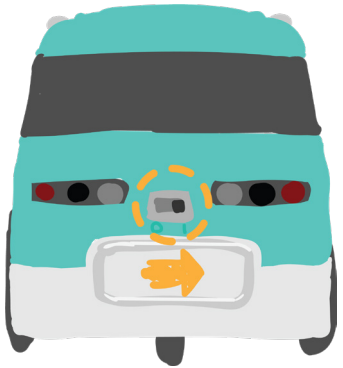
Powering and Charging

Waking Zumi Up

You can wake Zumi up by flipping the switch to the right towards the **1** position. In programming, **1** means "ON" or "TRUE" and **0** means "OFF" or "FALSE."



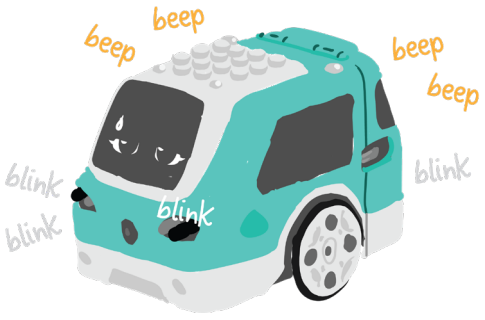
OFF position



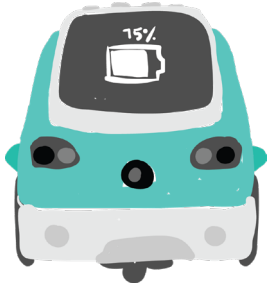
ON position

TIP! Zumi is a computer, so it's best to shut Zumi off from the dashboard rather than just flipping the switch off.

Low Battery



Zumi will beep and flash her lights when her battery is low. When this happens, you'll want to charge her battery.

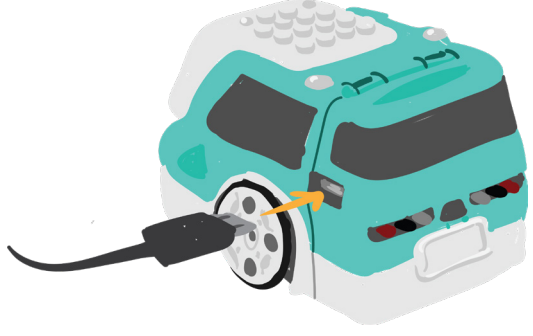


You'll be able to tell what her battery percentage is when she boots up or from the dashboard.

Charging When Zumi is OFF

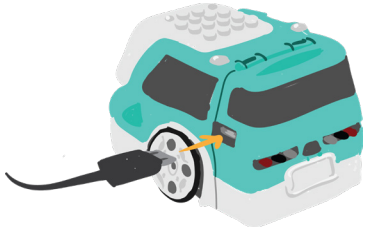
You can charge Zumi by plugging the micro USB cable into her micro USB port, located where you'd usually find the gas tank on a car.

You can plug the cable into an outlet adapter or to your computer's USB port.

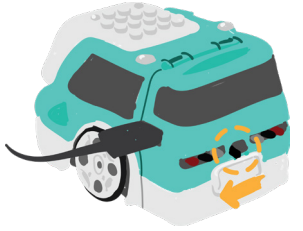


Charging When Zumi is ON

Zumi can also be charged while she is on. This is very useful for when you're just coding and don't want to drain her battery.



1 While Zumi is on, plug in the micro USB cable.

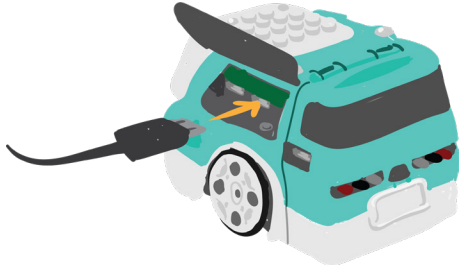


2 Flip the switch to the OFF position (0) to start charging. Think of it as flipping the switch **toward** the micro USB port.

CAUTION! Flip the switch back ON (1) before unplugging, otherwise Zumi will shut off. Think of it as switching back to battery power, **away** from the micro USB port.

Broken micro USB port?

Zumi's micro USB port may fail after heavy use. Fear not! You can still use the Pi 0's micro USB ports. Lift up the side window to access the Pi 0's micro USB ports.



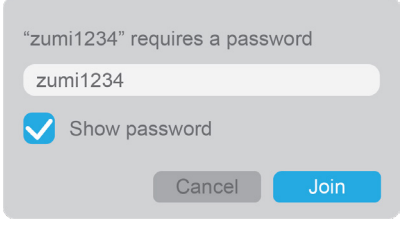
Accessing Zumi's Dashboard

Connecting to Zumi

Zumi is accessed through her dashboard, which can be reached by connecting to her WiFi signal. You'll need a device that can connect to WiFi, so a computer with only an ethernet cable won't work.

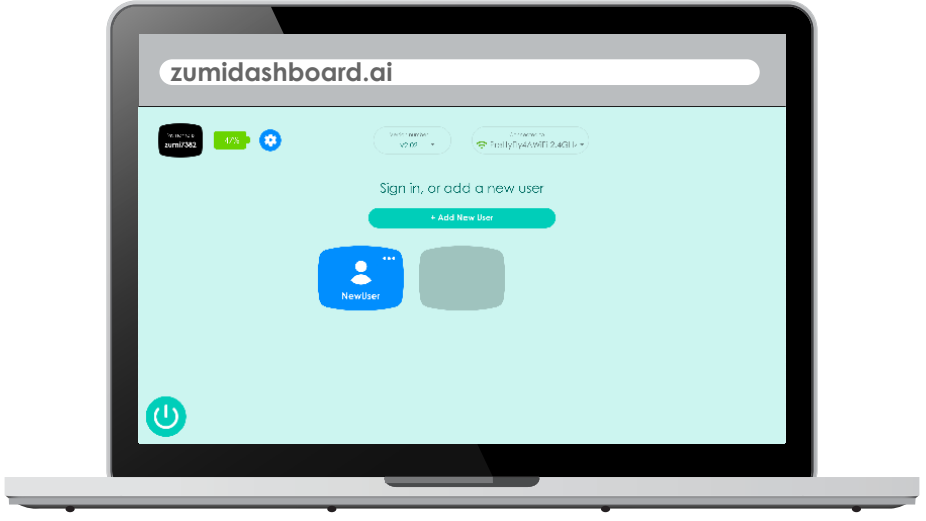
1 Once Zumi wakes up, she'll tell you her name. Look for her name in your device's WiFi list.

2 Enter the WiFi password, which is **the same as her name**.
For example: if her name is "zumi1234," then her password is also "zumi1234."



3 Access her dashboard by opening a browser and going to the following URL. We recommend a laptop running the **Chrome browser** for the best experience.

zumidashboard.ai

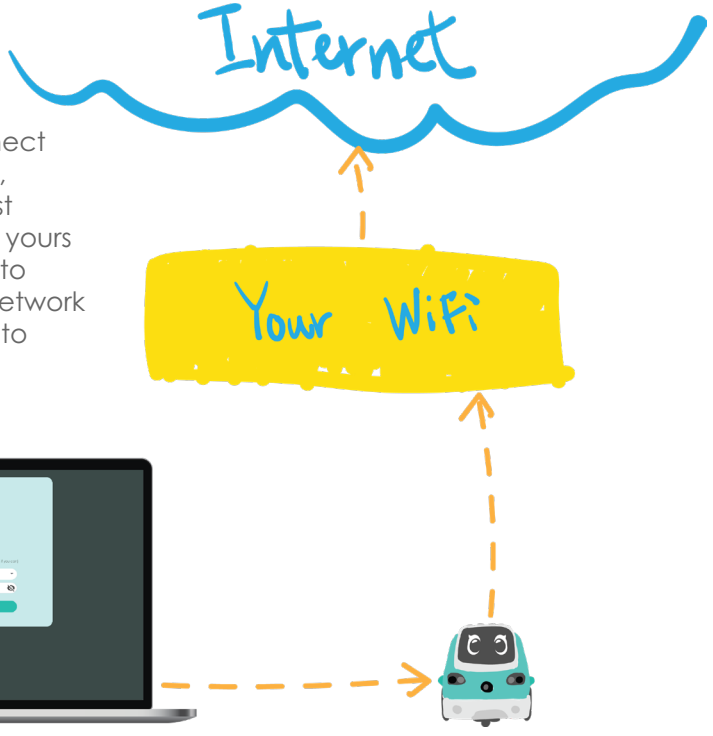


Getting Zumi Online

Your computer is connected to Zumi, but Zumi still needs to get online. Even though she can run offline, we recommend connecting Zumi to the internet so she can **get the latest updates**.

Plus, once Zumi is online, your computer will be online too!

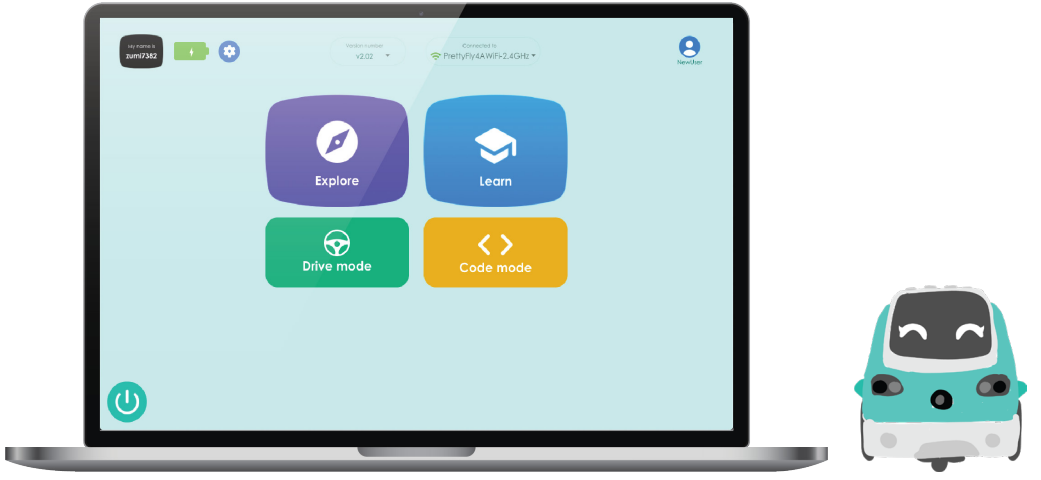
1. From Zumi's dashboard, enter your WiFi information to connect Zumi to your WiFi.



TIP! Zumi can only connect to 2.4 GHz WiFi networks, not 5 GHz networks. Most routers have both, but if yours doesn't, you may need to connect to a different network or use a mobile hotspot to update Zumi.

2. Once Zumi is online, make sure she is **updated to the latest version** so you can get the newest lessons and software updates.

3. You're all set! Create a user and sign in. Now you can start exploring Zumi's dashboard!



Troubleshooting and Support

Troubleshooting guide

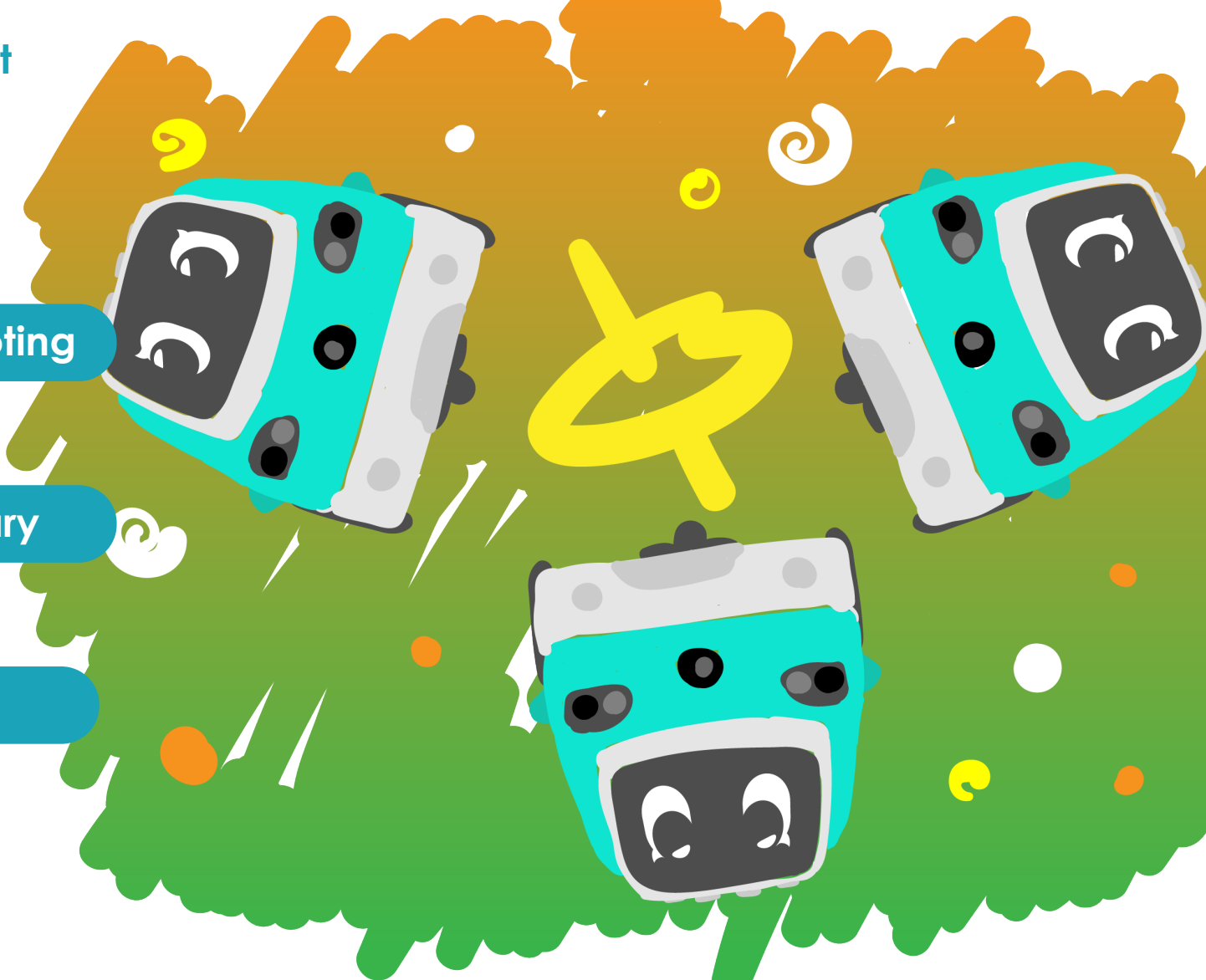
robolink.com/zumi-troubleshooting

Functions guide

docs.robolink.com/zumi-library

Still got questions?

robolink.com/support



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