

Manual





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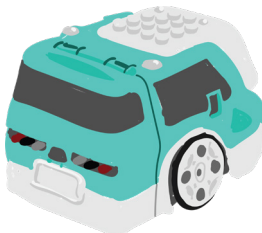
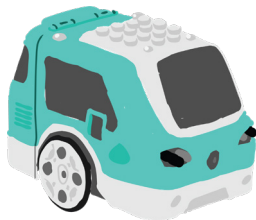
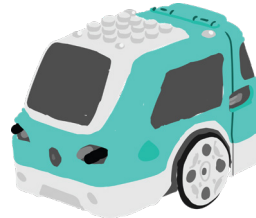
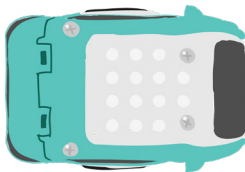
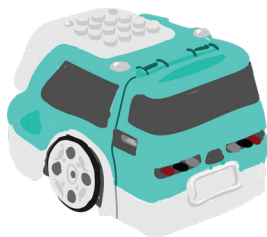
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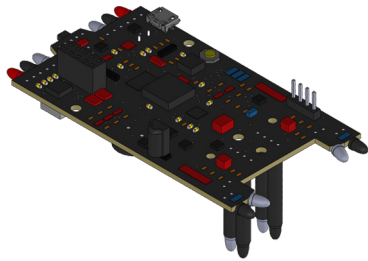
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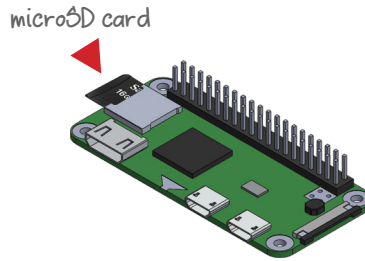


Parts List

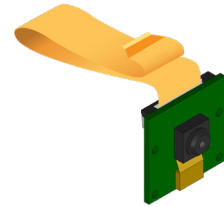
Primary components



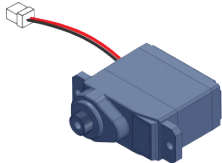
Zumi board



Pi 0 (zero) + microSD card



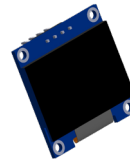
Pi camera



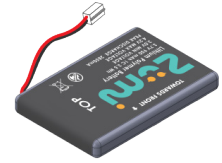
2 motors



2 wheels



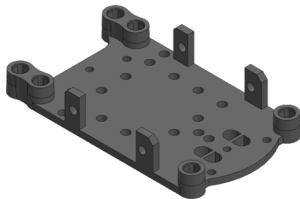
OLED screen



Battery



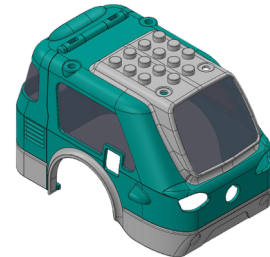
Structural components



2 Chassis



Mounting bracket



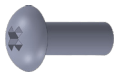
Zumi shell





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



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



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



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



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



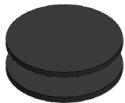
Short plug
standoff (M2.5x11+6mm MF)
2 included, use 2



Motor screw
(PH+ W/S-1 2.6x6L)
8 included, use 6



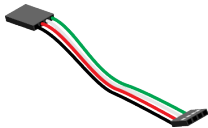
Short socket
standoff (M2.5x18mm FF)
2 included, use 2



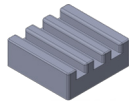
Dual lock velcro pads
2 included, use 2



Other components



Jumper wire



Heatsink





Let
ass

Fo



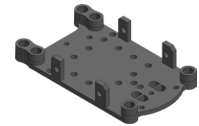
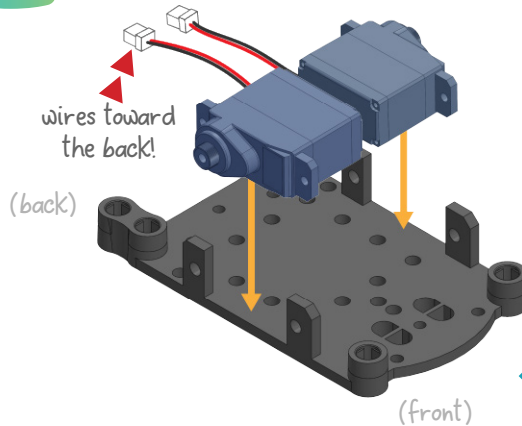


Building Zumi

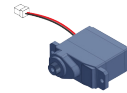
Let's put Zumi together! Before Zumi can start up, she needs to be assembled.

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

1 Attach motors



Chassis



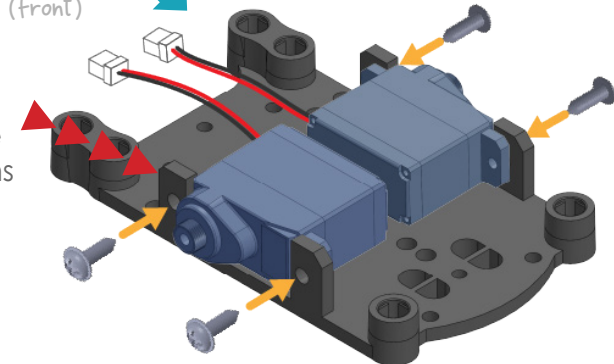
2 motors



4 motor screws

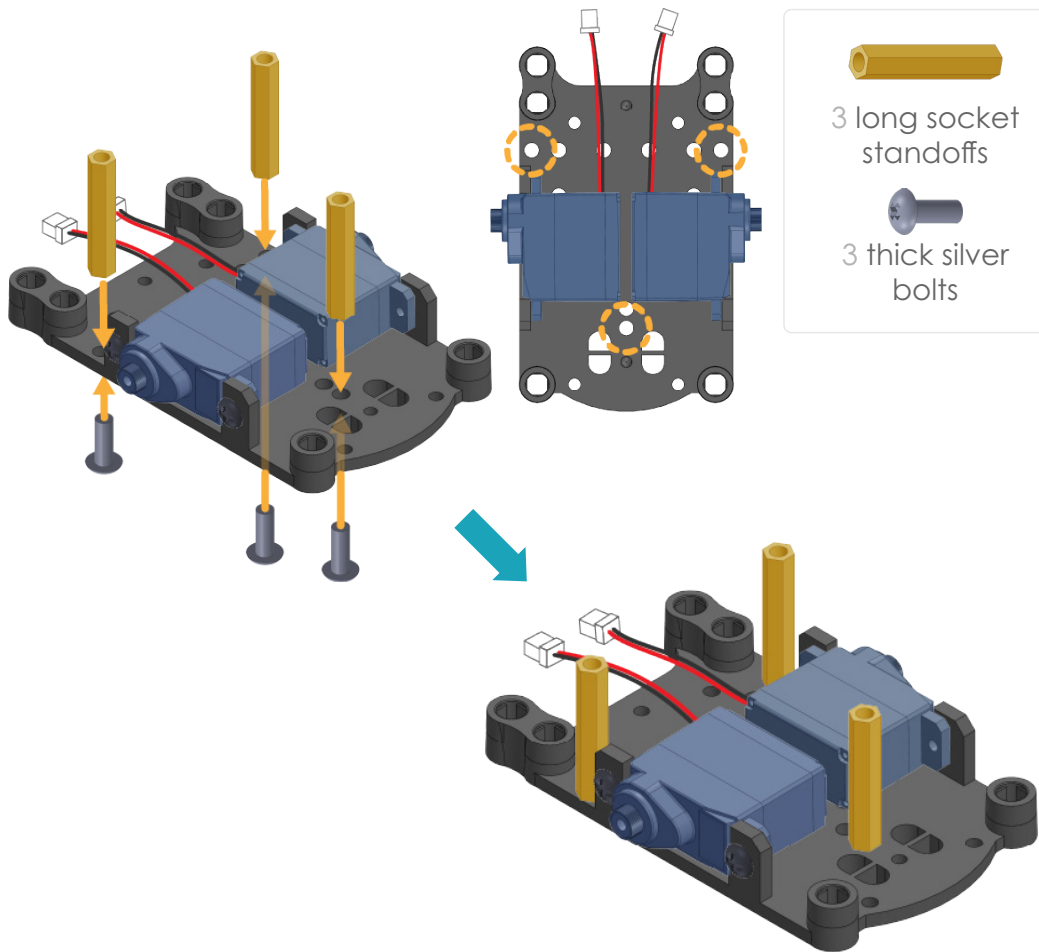


TIP! Make sure the arms of the motors are on the **inside** of the chassis arms





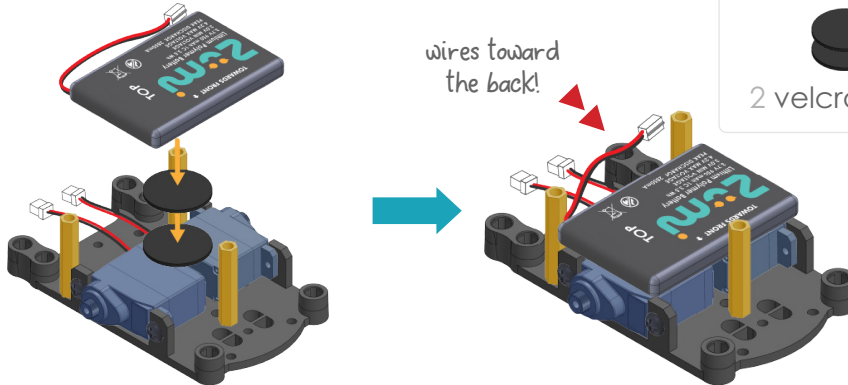
2 Add standoffs to the chassis



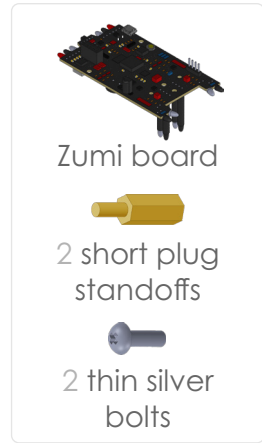
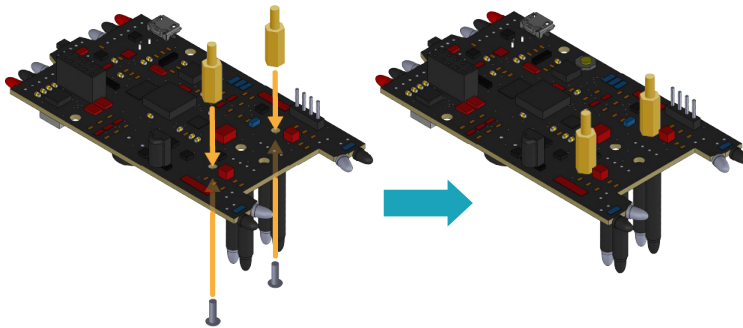


3 Attach the velcro and battery

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.

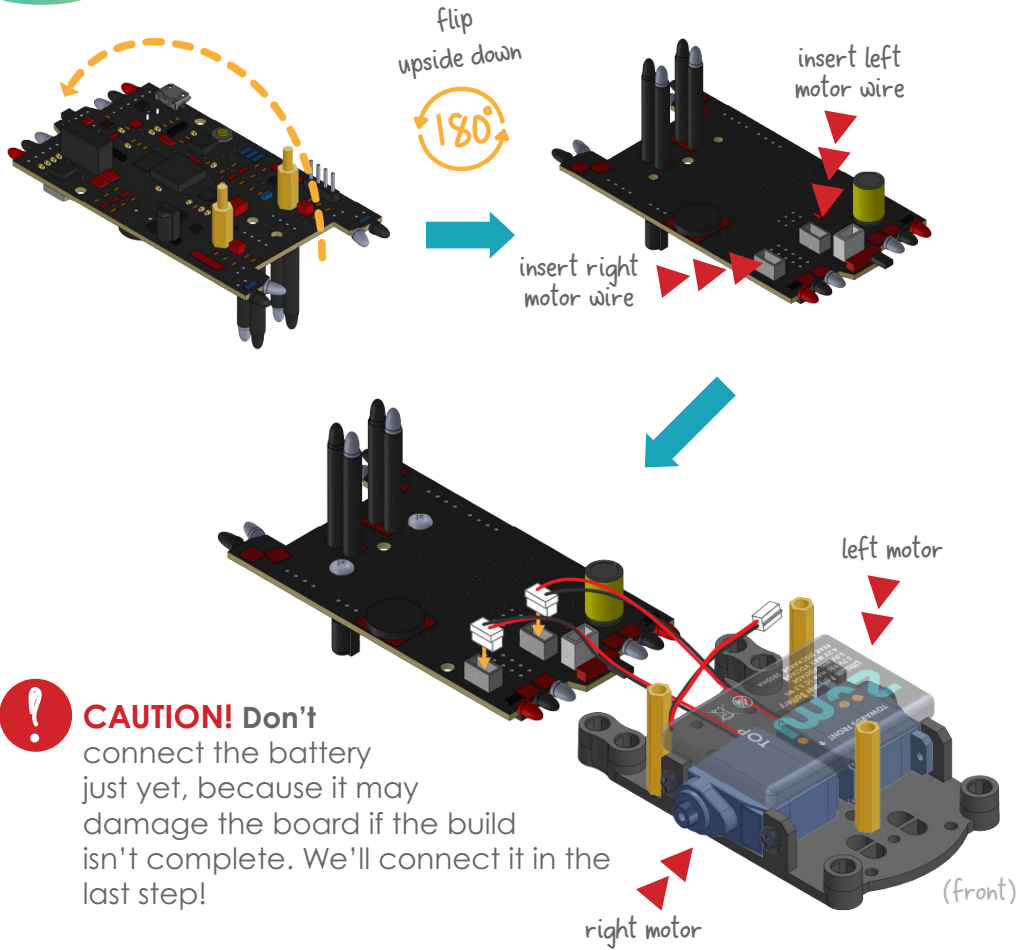


4 Add standoffs to the Zumi board





5 Connect *only* the motor wires



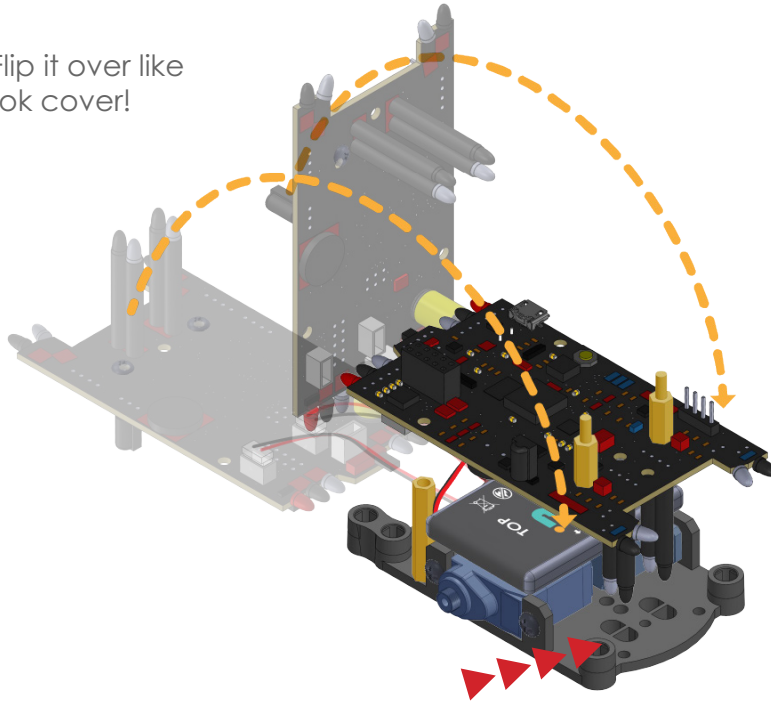


6

Flip the Zumi board on top of the chassis



TIP! Flip it over like a book cover!

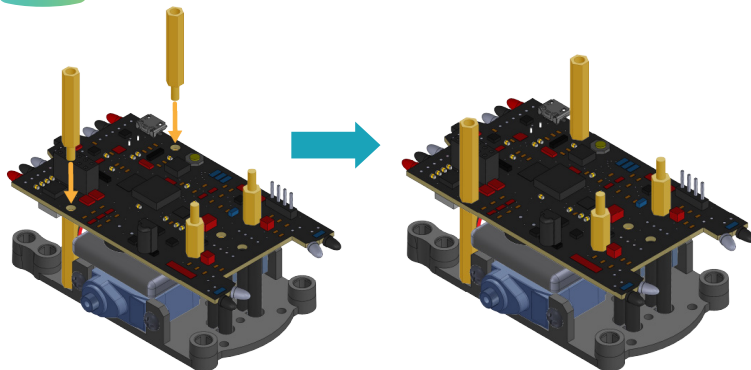


CAUTION! Make sure to line up the four LED tubes with the holes in the chassis. Be careful not to bend them!





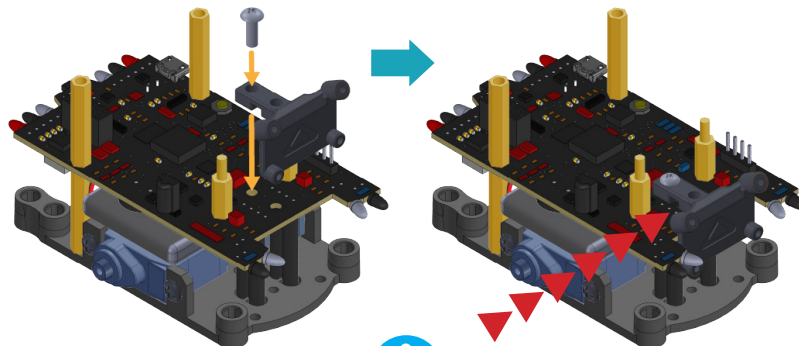
7 Add standoffs to the Zumi board



2 long plug standoffs



8 Attach the mounting bracket



Mounting bracket



1 thick silver bolt



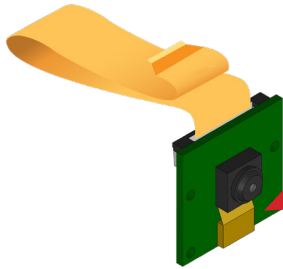
TIP! From the side, check that this part of the bracket is completely flat against the Zumi board.





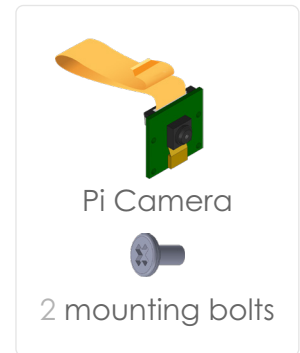
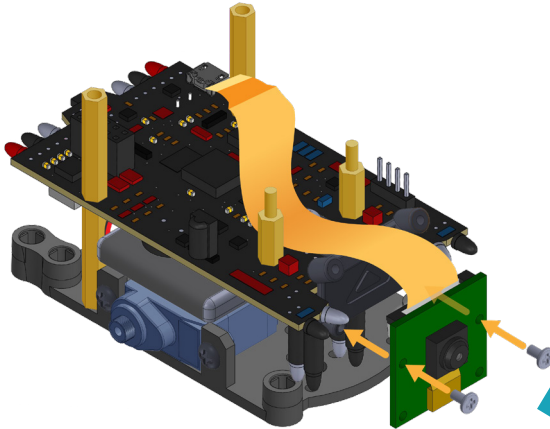
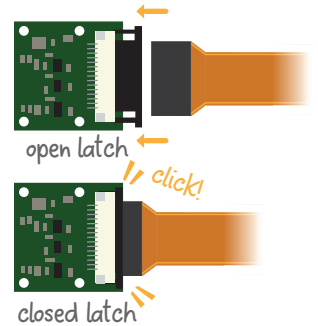
9

Attach the Pi Camera to the mounting bracket

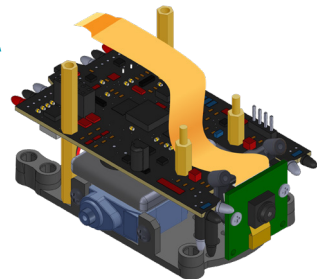


This is a Pi Camera! Zumi uses this to see.

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



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.



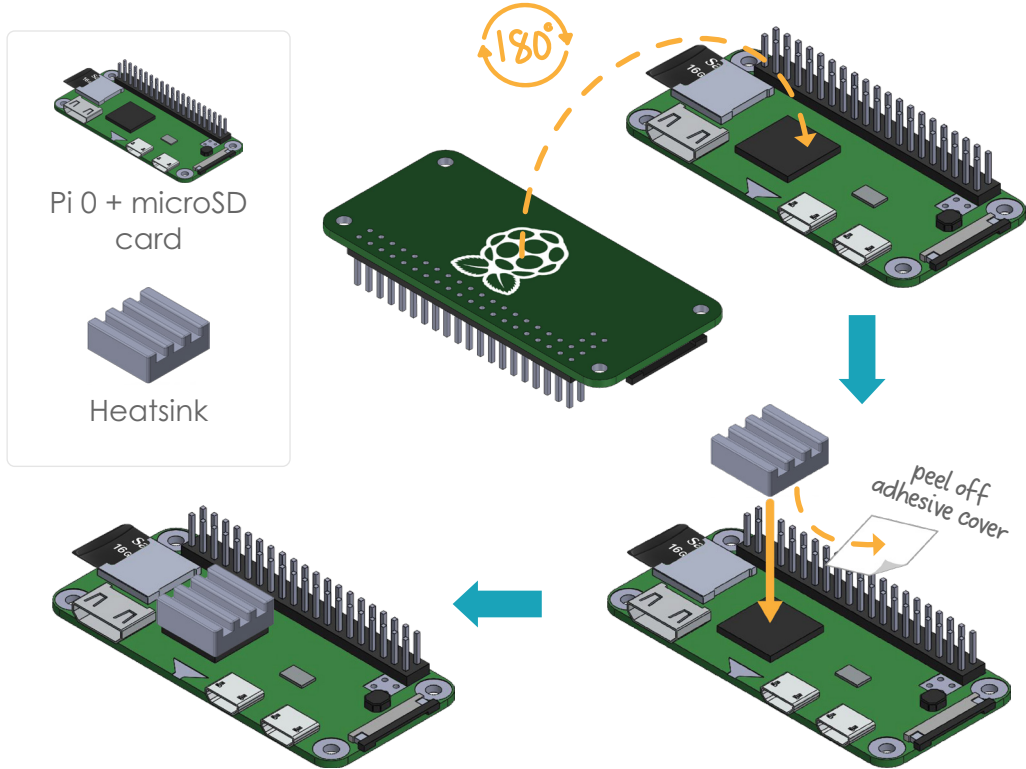
11





10 Attach the heatsink to the Pi 0

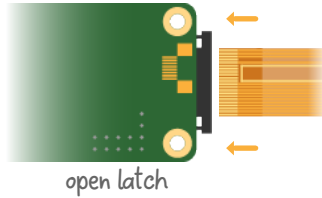
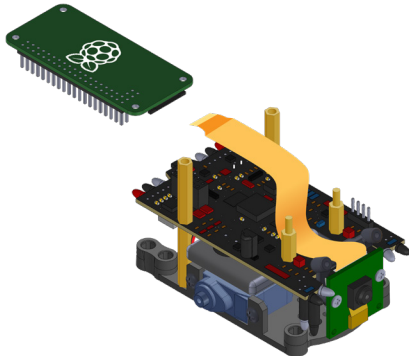
This is a Pi 0, a miniature computer that fits in the palm of your hand—this is Zumi's brain. It has a microSD card plugged into it, which is where her memory is stored. Let's attach a heatsink to keep Zumi nice and cool.



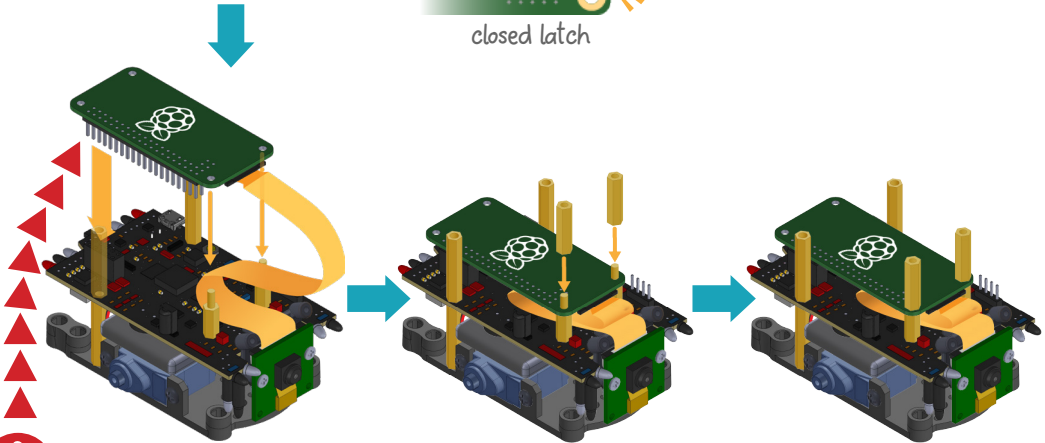
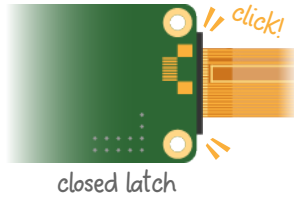


11

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



2 short socket standoffs



CAUTION! Make sure only the **last five rows** of pins are fully plugged in. Otherwise your Pi 0 will get damaged!

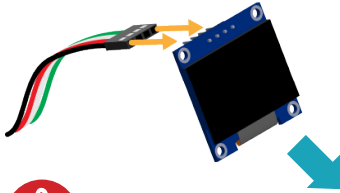
13



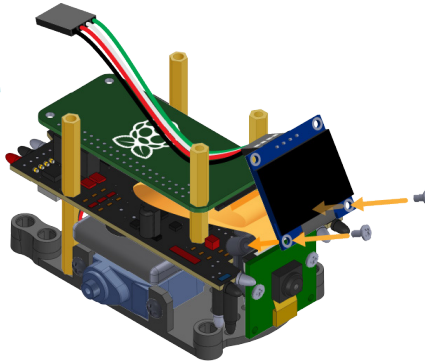


12 Attach the OLED screen to the mounting bracket

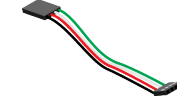
This is the OLED screen. Careful, it's made of glass!



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



OLED

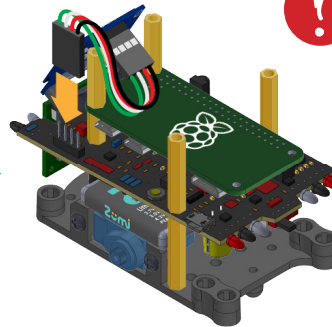
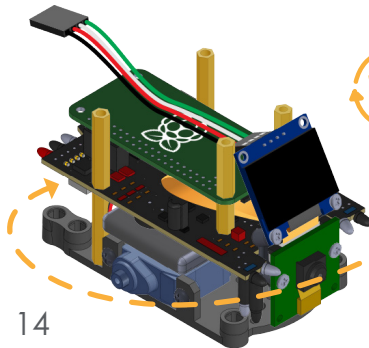


Jumper wire



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.

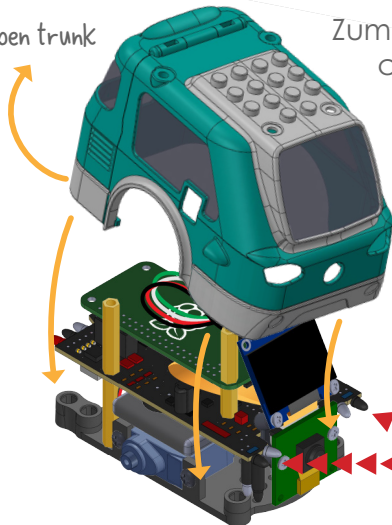
14





14 Attach the shell

open trunk



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



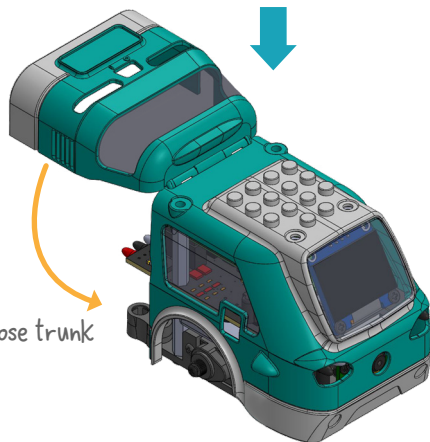
2 thick silver bolts



2 thin silver bolts

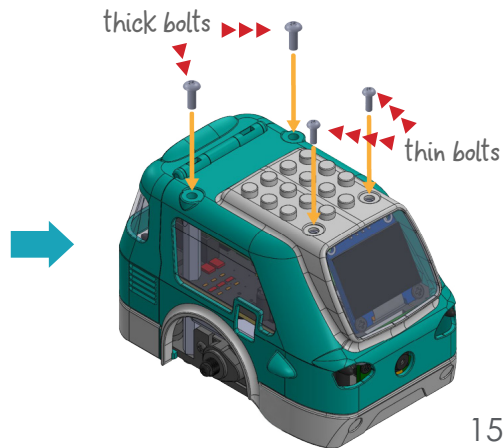


CAUTION! Be careful not to bend the LEDs when placing the shell on.



close trunk

thick bolts

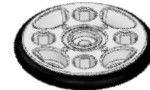
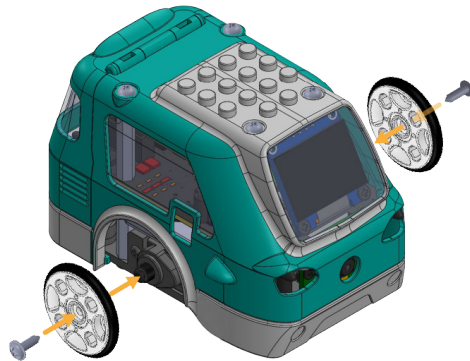


thin bolts





15 Attach the wheels



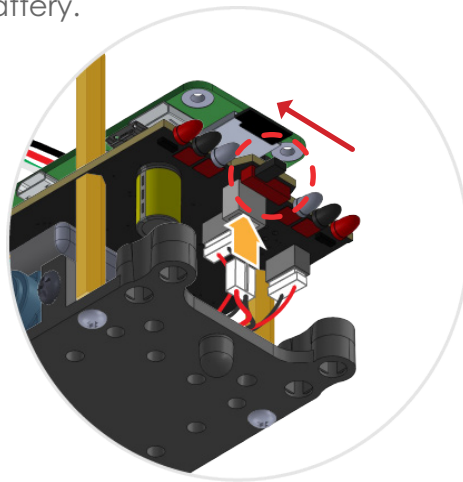
2 wheels



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.



16





You're done!



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

robolink.com/zumi-getting-started







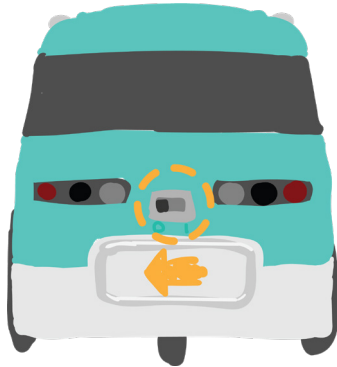
Wo
You
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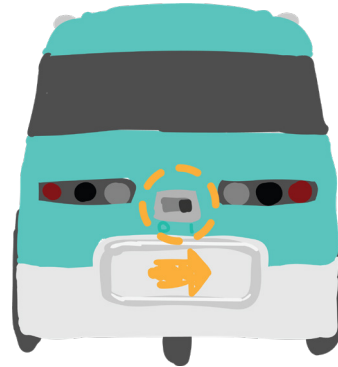
Powering and Charging

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

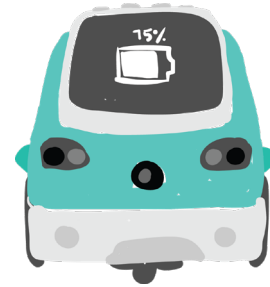
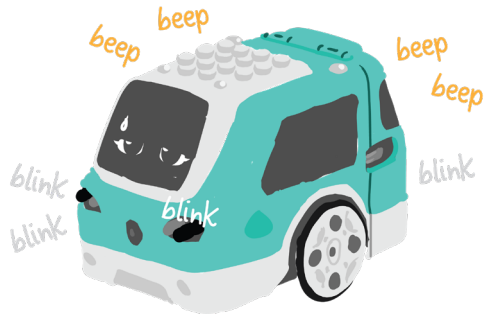


TIP! Zumi is a computer, so it's best to shut Zumi off from the dashboard rather than just flipping the switch off.





Low Battery



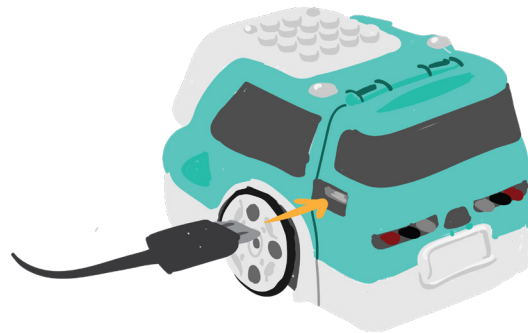
Zumi will beep and flash her lights when her battery is low. When this happens, you'll want to charge her battery.

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.

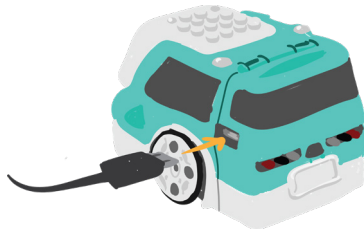
You can plug the cable into an outlet adapter or to your computer's USB port.





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.

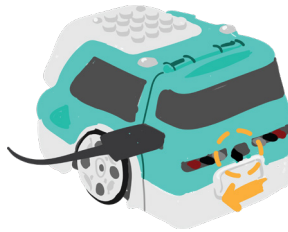


1

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

2

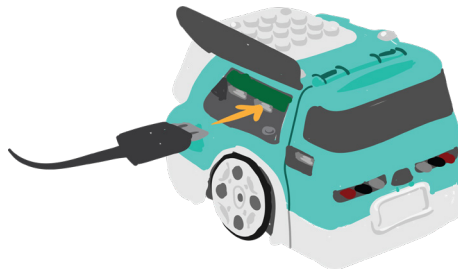
Flip the switch to the OFF position (0) to start charging. Think of it as flipping the switch **toward** the micro USB port.



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.

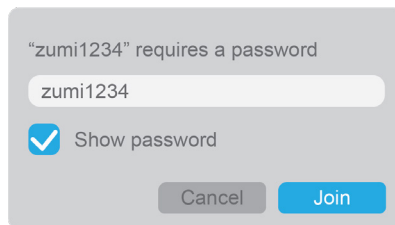
1

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



2

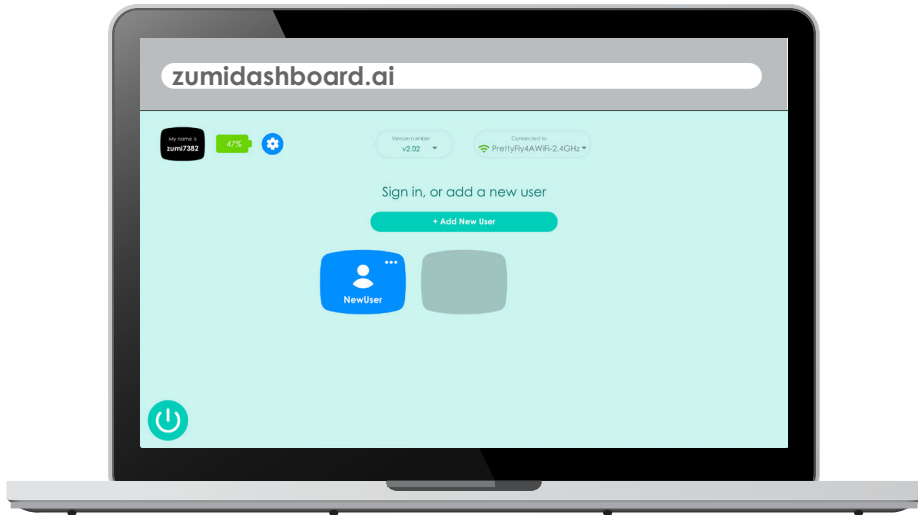
Enter the WiFi password, which is **the same as her name**. For example: if her name is "zumi1234," then her password is also "zumi1234."



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**.

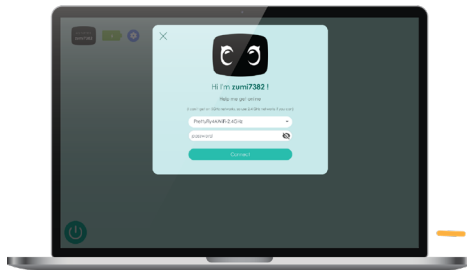
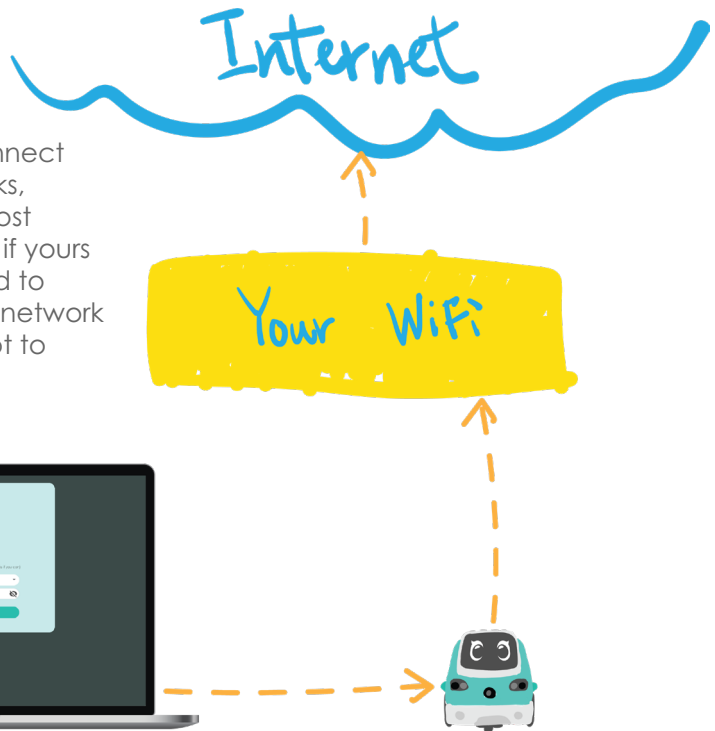
Plus, once Zumi is online, your computer will be online too!

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.

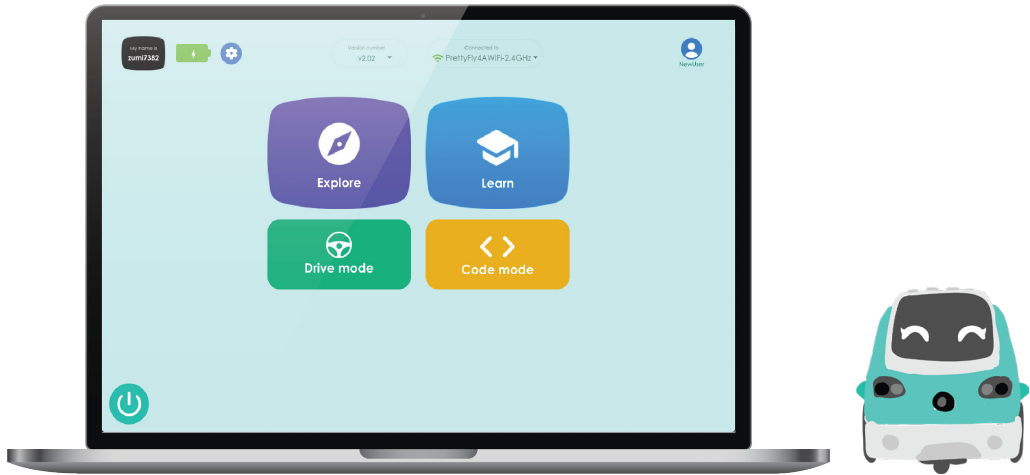


2

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

robotlink.com/zumi-troubleshooting

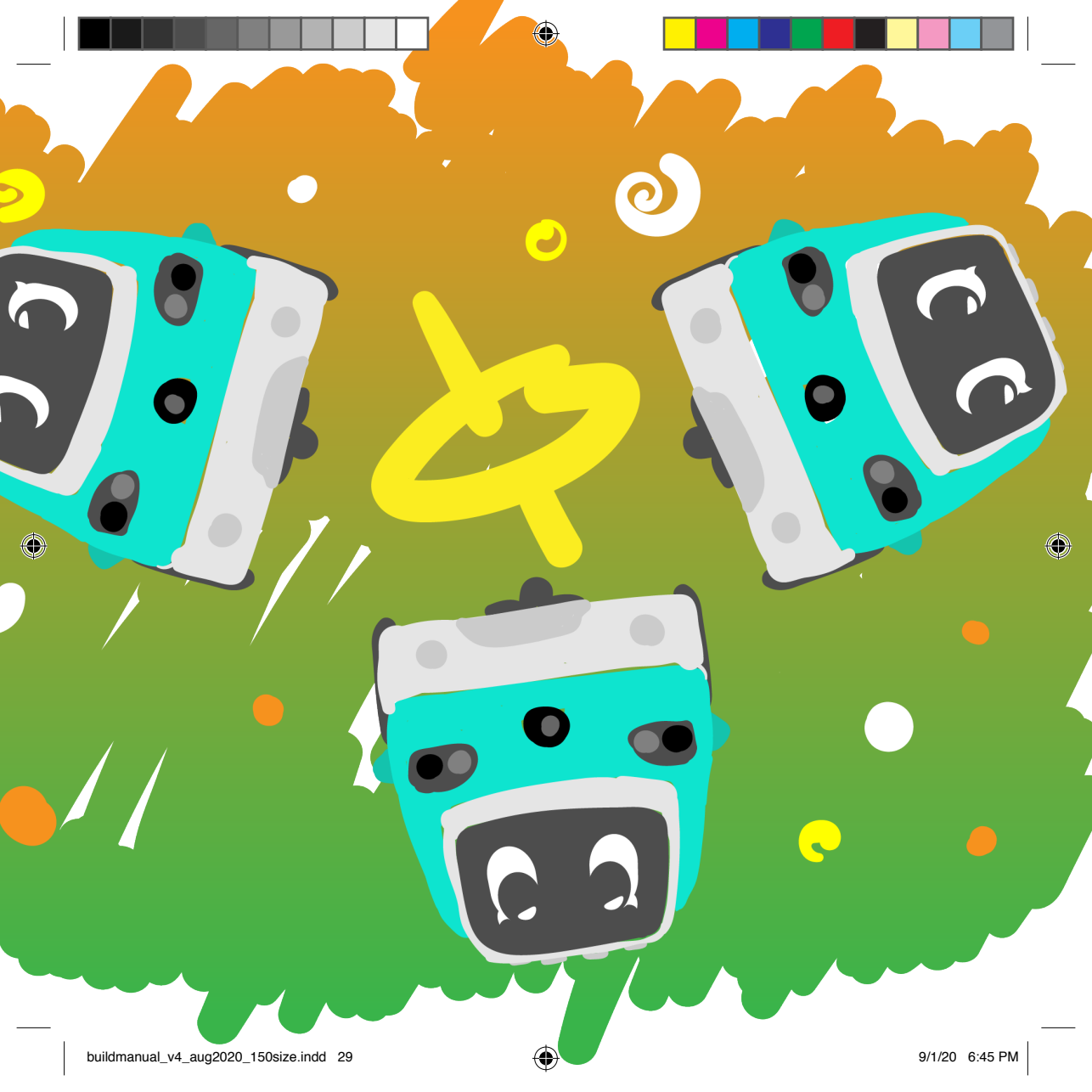
Functions guide

docs.robotlink.com/zumi-library

Still got questions?

robotlink.com/support







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