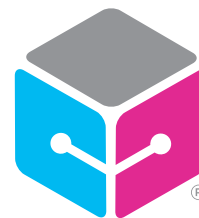


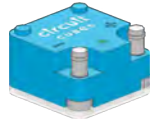
# GEARS GO! Garage

MULTI-VEHICLE / BLUETOOTH CONTROL / EXPANSION KIT



circuit  
cubes

## BATTERY



The standard battery Cube is the power for your circuit. It has a positive and negative terminal. Just turn on the switch to power your creation and it's rechargeable too. If the LED on the top of your cube is flashing red then you have caused a short circuit and power output is disabled to allow you to troubleshoot the circuit.

## MOTOR



A perfect fit for your LEGO® gears and wheels, this mighty little Motor actually rotates at more than 1,000 RPM [rotations per minute], but the tiny gears attached to the shaft reduce the rotations to about 75 RPM. This ensures maximum torque to turn the wheels or gears of your build.

## RGB LED

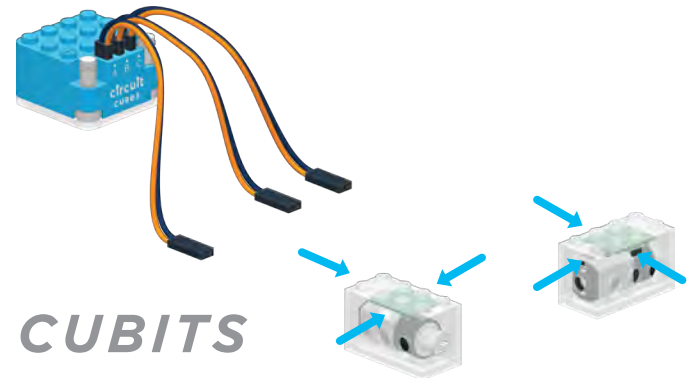


The Red-Green-Blue [RGB] LED has three different LEDs in one bulb. Use the small switches to turn on each of the LEDs and control the red, green, and blue lights. Try combining the colored lights in different combinations to make purple, teal, and yellow.

## BLUETOOTH



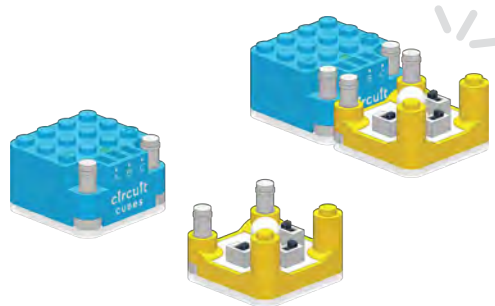
The Bluetooth Cube can function like a standard Battery Cube to power all the outputs at the same time with the 3-way switch in the ON position. Move the switch to the Bluetooth position for broadcast mode [flashing blue LED] to pair the Cube with your device. Once connected [solid blue LED], you can control the three outputs [ A | B | C ] independently using the app.



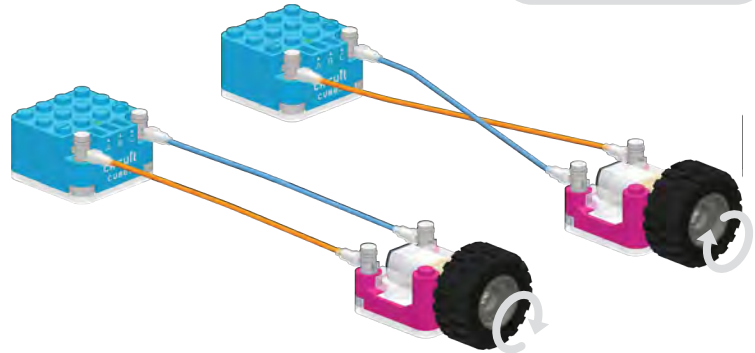
## CUBITS

Cubit Geared Motors are compact and powerful. The tiny planetary gears inside reduce the high speed motor to about 160 RPMs (rotations per minute) to provide torque to gears, wheels, etc. Three (3) ports around the Cubit Geared Motor allow maximum versatility to connect the wires from the Bluetooth Cube.

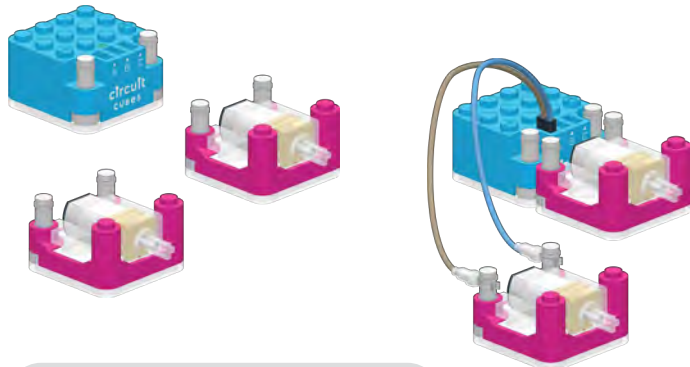
MAGNETS



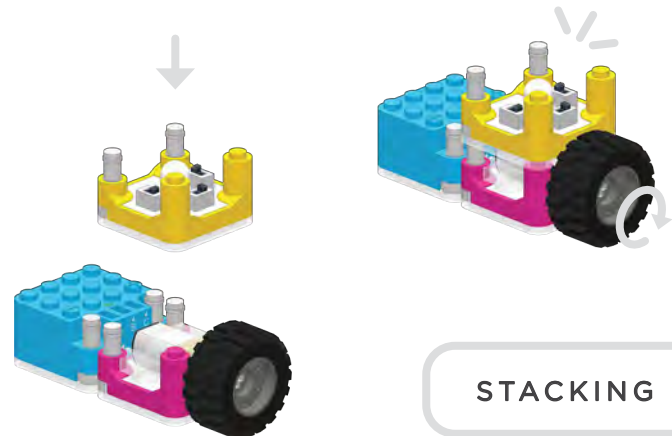
WIRES



CONNECT YOUR CUBES



POSTS & OUTPUTS



STACKING

## BATTERY MODE



Flip the switch to the right to power your creation in standard battery mode. A solid green light [●] indicates that the Bluetooth Cube is powered on. Outputs [ A | B | C ] are on, and you cannot control voltage.

### PROTECT

Your Bluetooth Cube has short circuit protection for when you cause a shortage. Power will be disabled and the top LED will flash green [●] and blue [●]. You will hear a beeping sound until the short is removed.

### CHARGING

To charge your Bluetooth Cube, plug the provided USB cable into the charging port on the side, and connect it to a standard USB port. The LED will turn red [●] while charging and green [●] when charging is complete.

## BLUETOOTH MODE



You can control the three outputs [ A | B | C ] independently with the Circuit Cubes app. Each output allows you to control and power different parts of the build. Similar to the metal posts on the Cubes, each output has positive and negative polarity. This makes the Motor move, either clockwise or counterclockwise.

### BLUETOOTH [●]

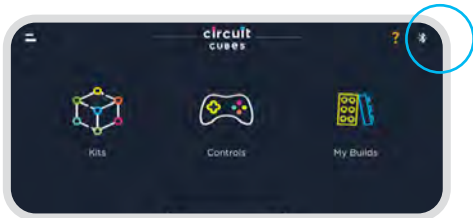
Flip the switch to the left to control your creation via the free Circuit Cube app — find it in the Apple App Store or Google Play Store.

### PAIRING

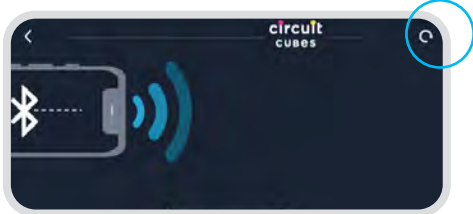
A blinking blue light indicates that the Bluetooth Cube is pairing with your device. When the light is solid blue [●], it's connected.

# DEVICE PAIRING

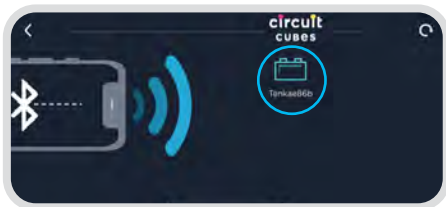
1 Download the free Circuit Cubes app from the Apple or Google Play stores. 2 Turn on your device's Bluetooth and set the Bluetooth Battery to the Bluetooth icon. 3 In the Circuit Cubes app, press the Bluetooth icon in the upper right corner of the home screen. 4 If no Cubes appear, tap the refresh icon. 5 Tap the Cube you wish to control.



BLUETOOTH  
ICON



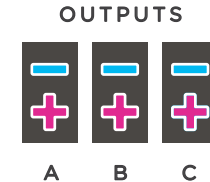
REFRESH  
ICON



TAP CUBE

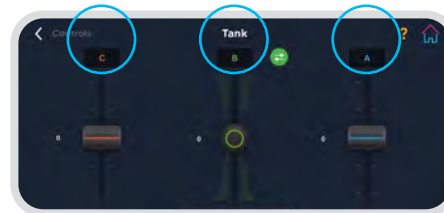
## OUTPUTS

The Bluetooth Cube has three outputs [ A | B | C ]. In Bluetooth Mode, output A and the metal posts are the same, and are linked when powered on.

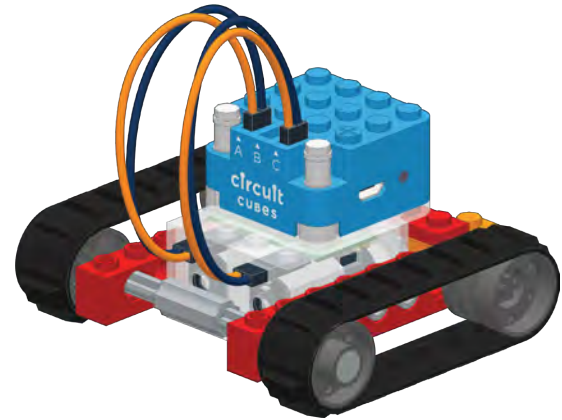


## CONTROLS

Power the three outputs [ A | B | C ] using Tank, Tinker, Gamepad or Code in the Controls section of the App. The correct output settings to control each build is located at the end of each section.

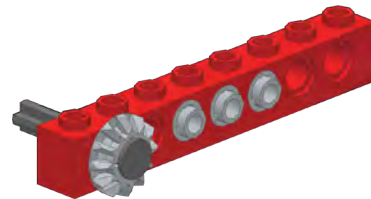


# ***XB-A1***

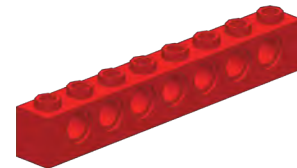


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1



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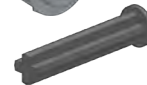
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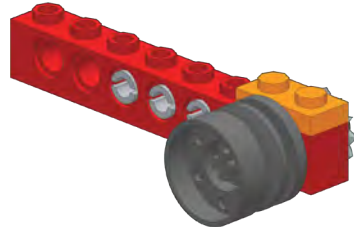


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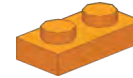
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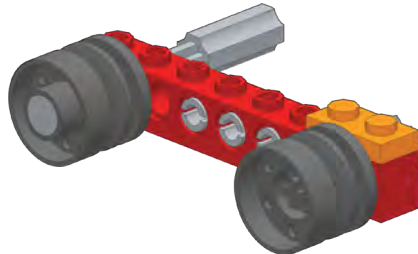
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3



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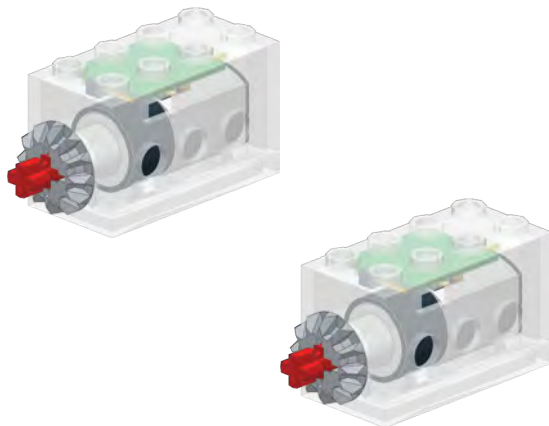


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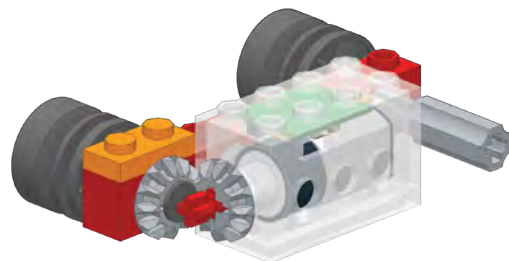
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2



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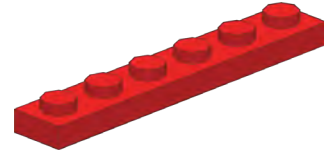




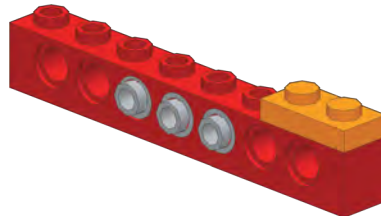
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7



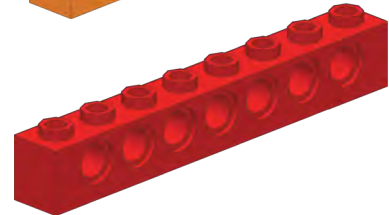
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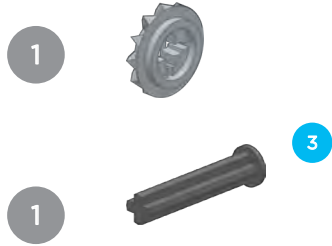
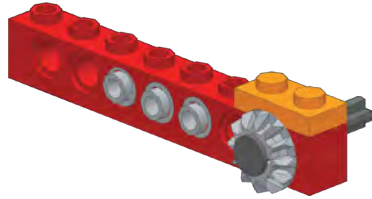
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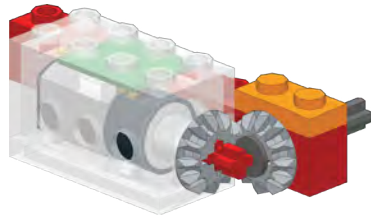


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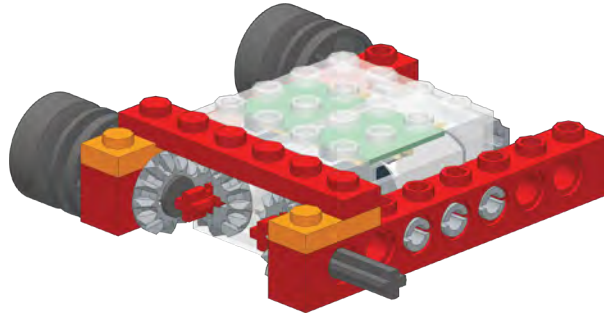


1:1 SCALE

9



10



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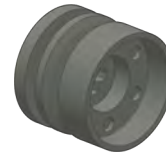
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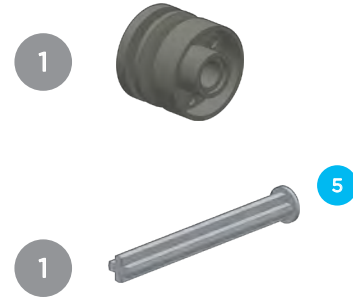
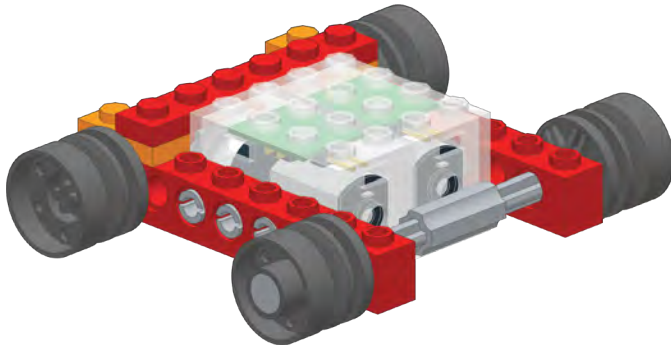
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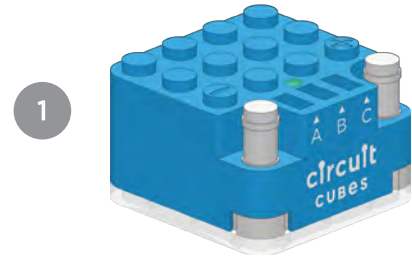
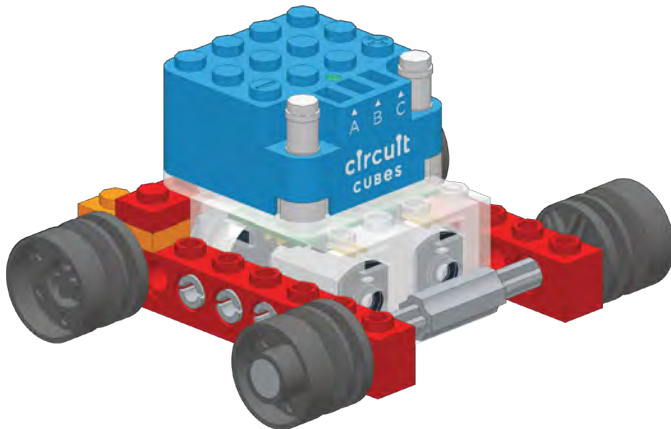
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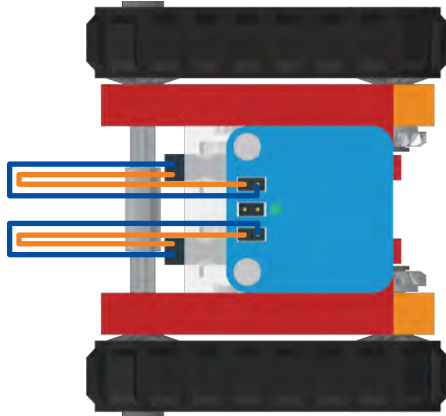
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14



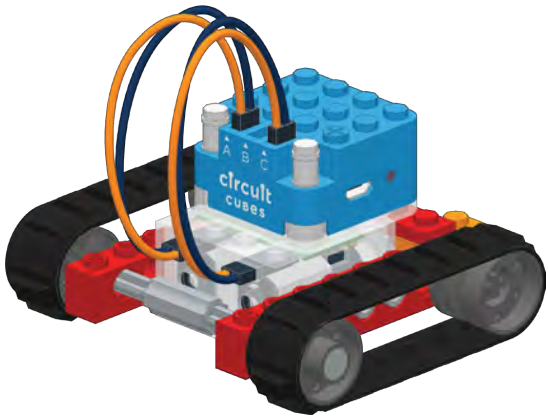
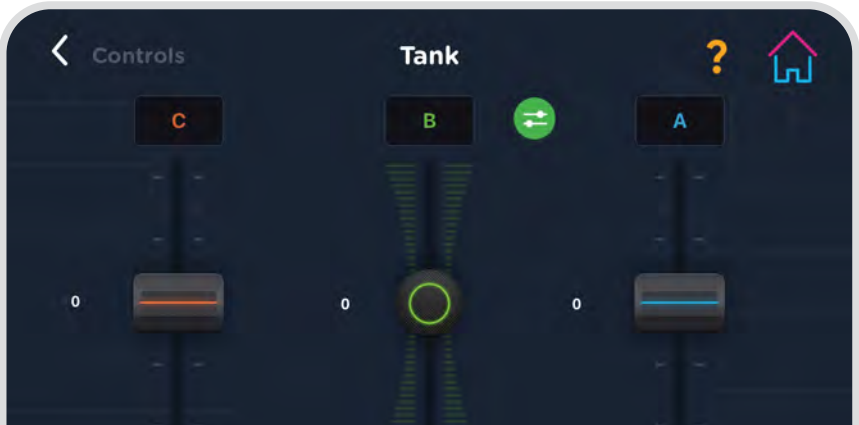
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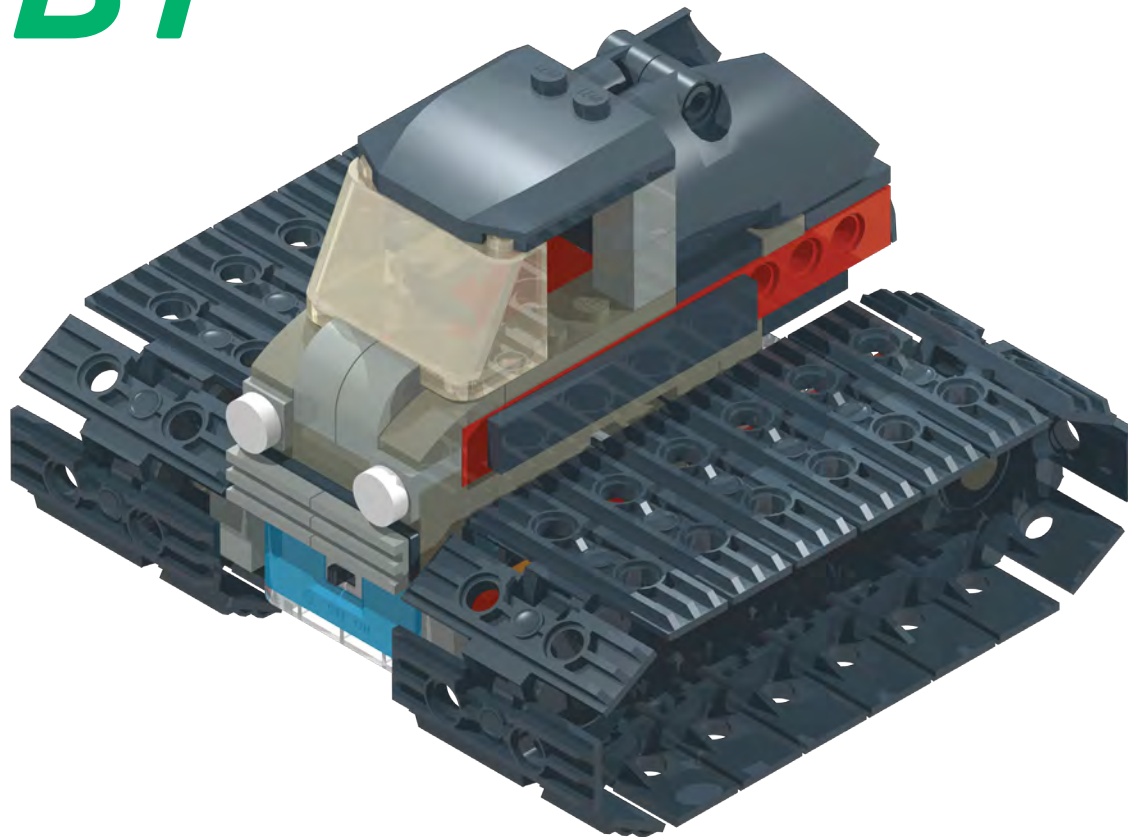
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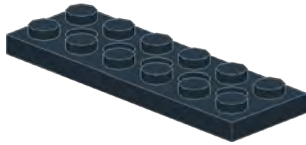
# ***XB-A1 CONTROLS***



# *XV-B1*



1



1



2



2x

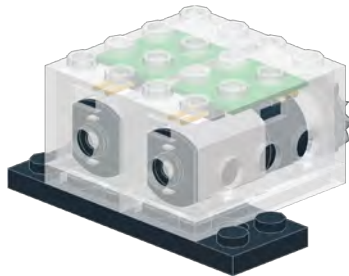
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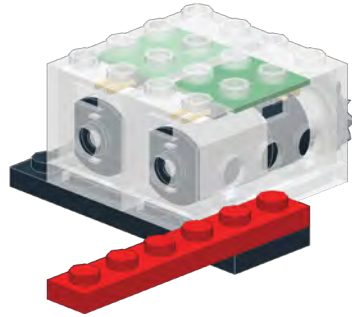
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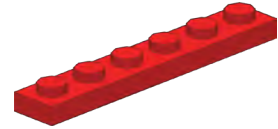
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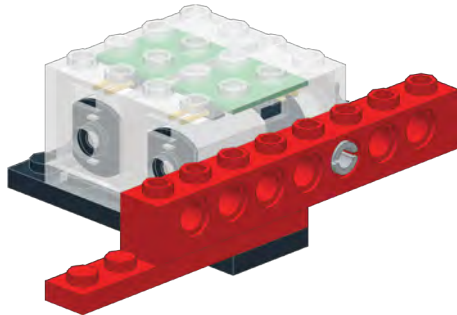
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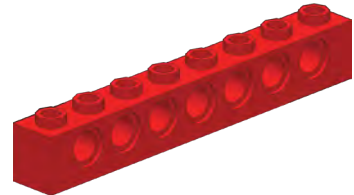
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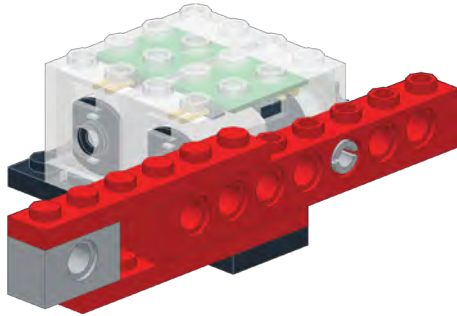


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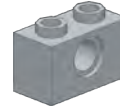




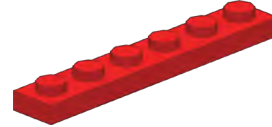
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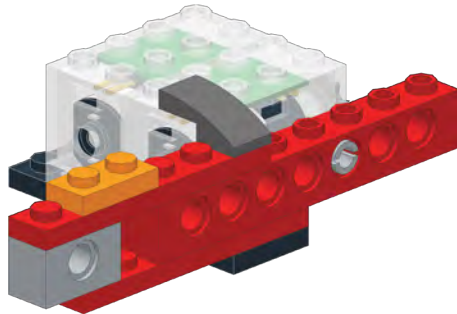
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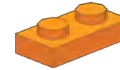
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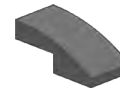
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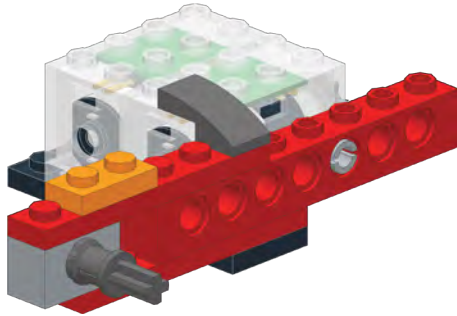
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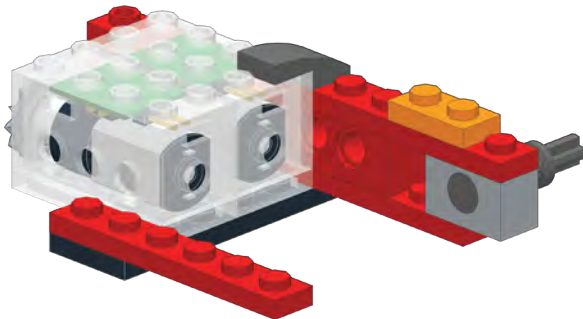


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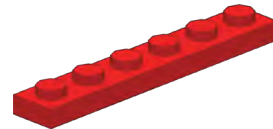
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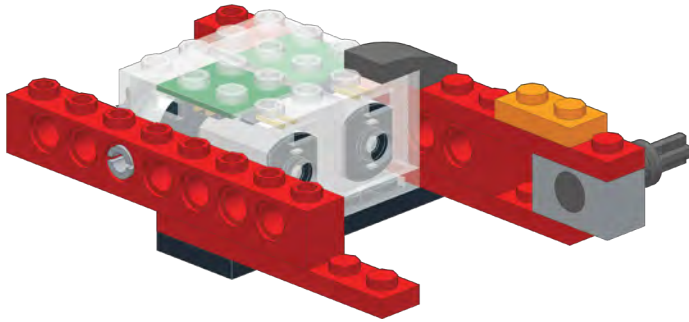
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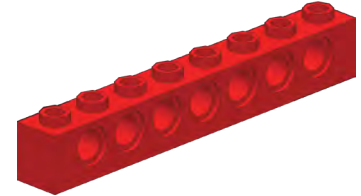
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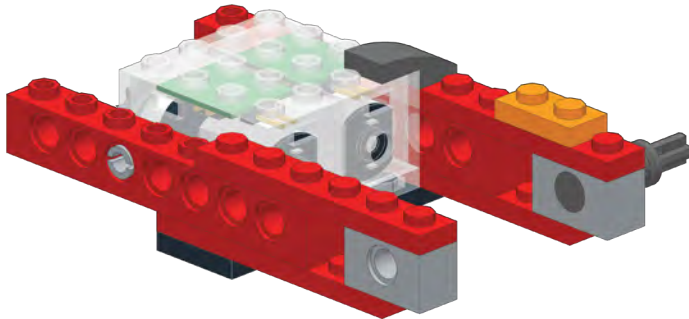
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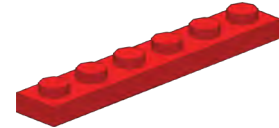
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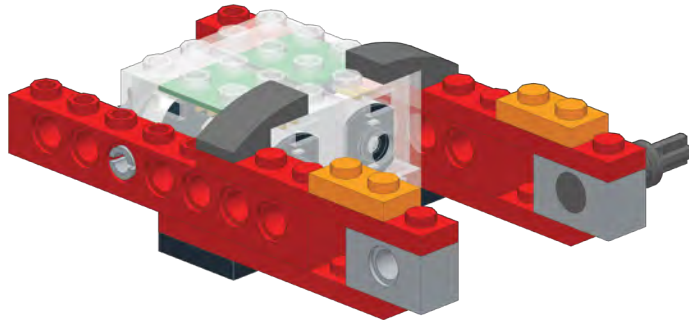
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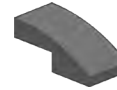
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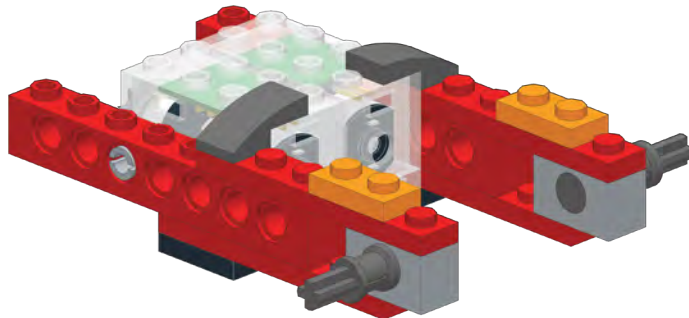
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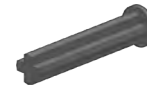
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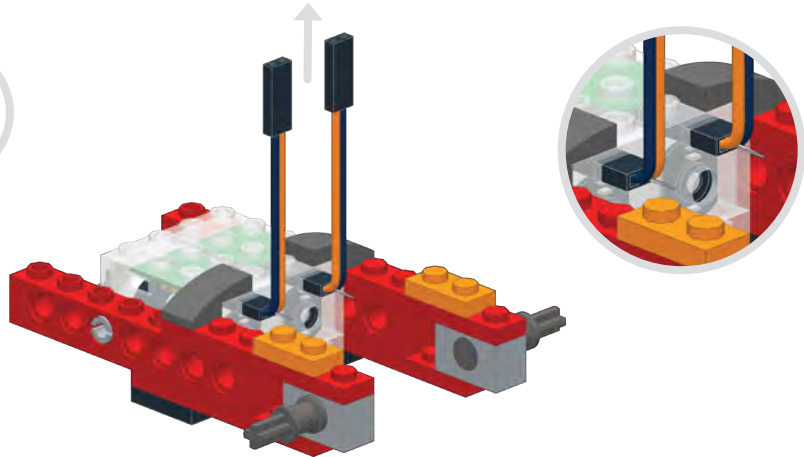


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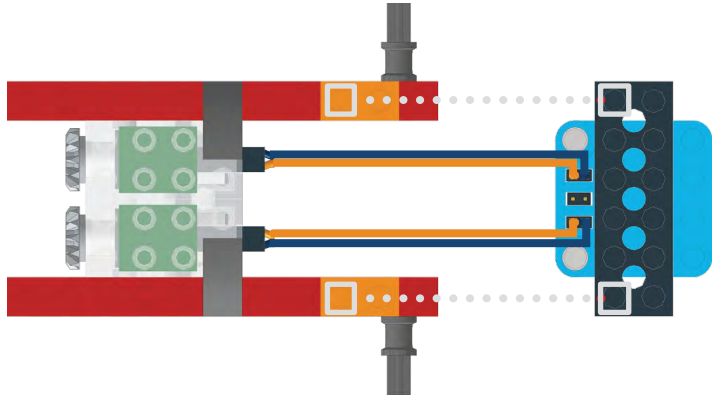
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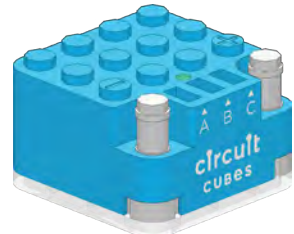
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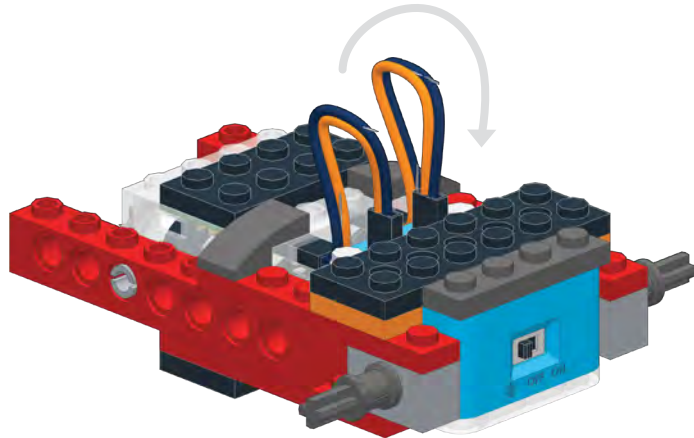
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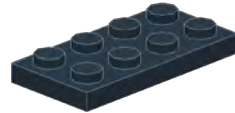
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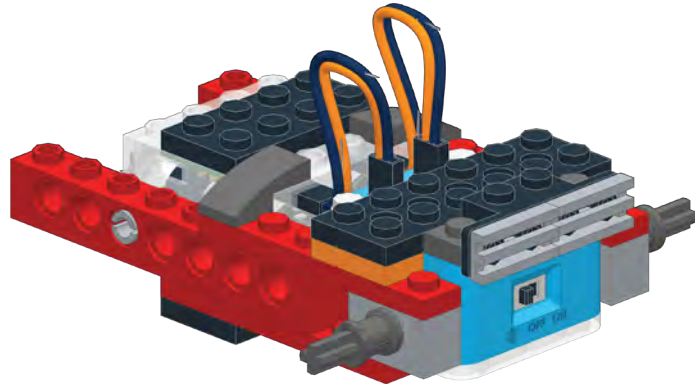
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16



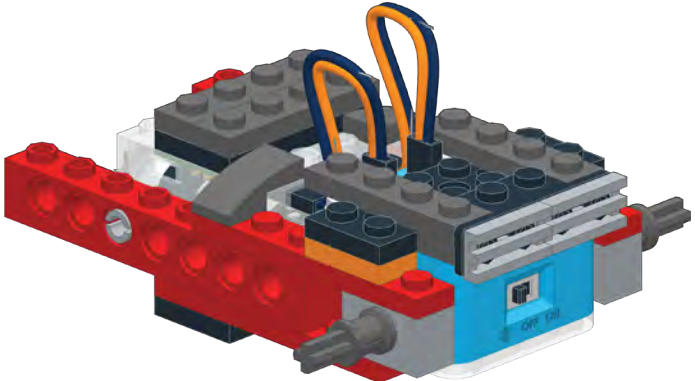
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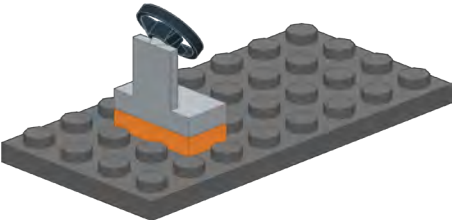
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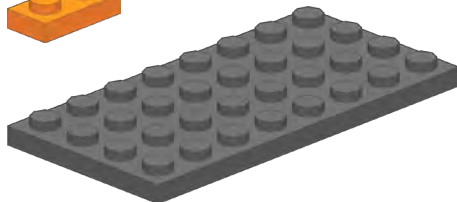
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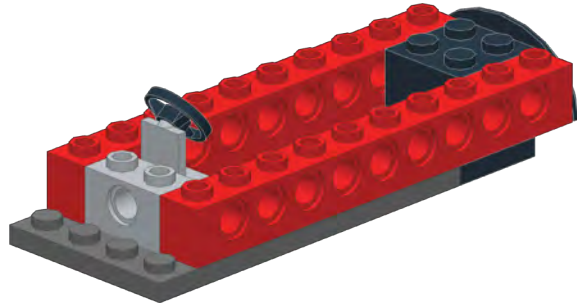
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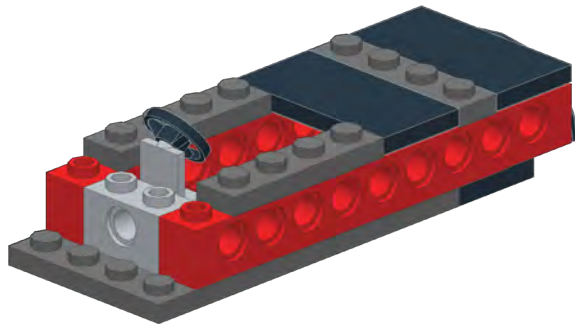


19



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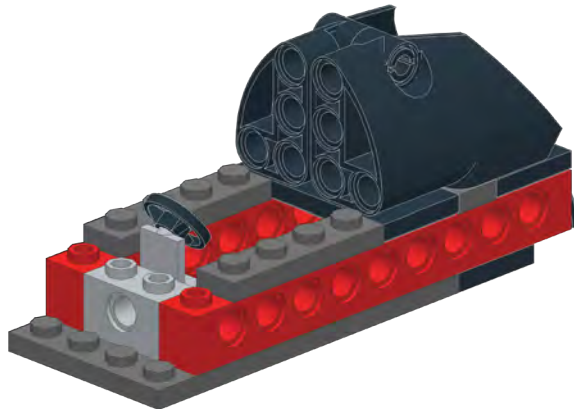
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- 3

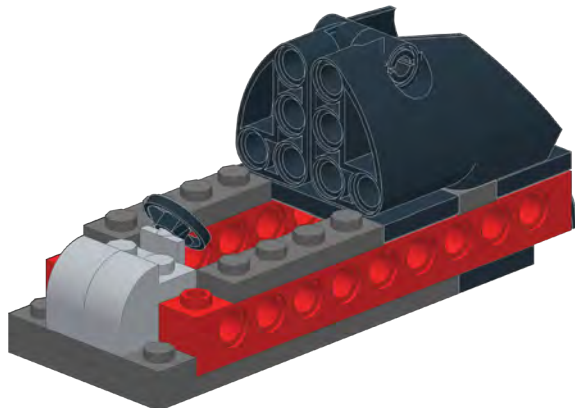


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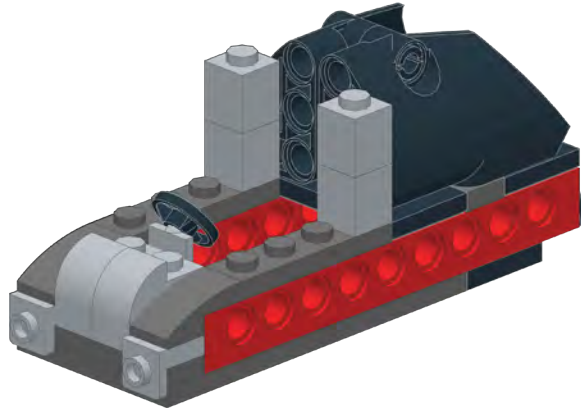
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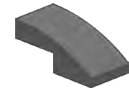


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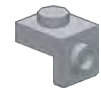
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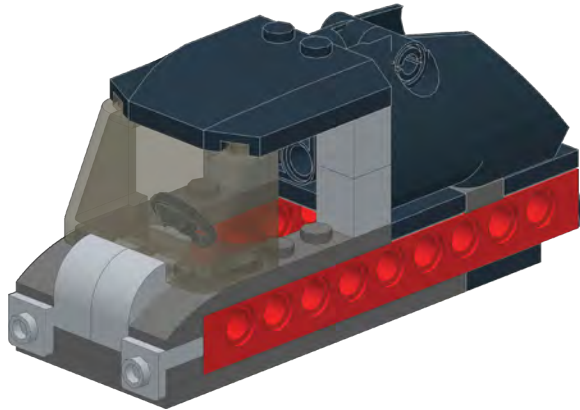
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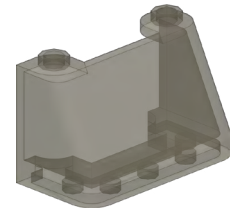
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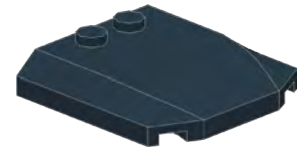
24



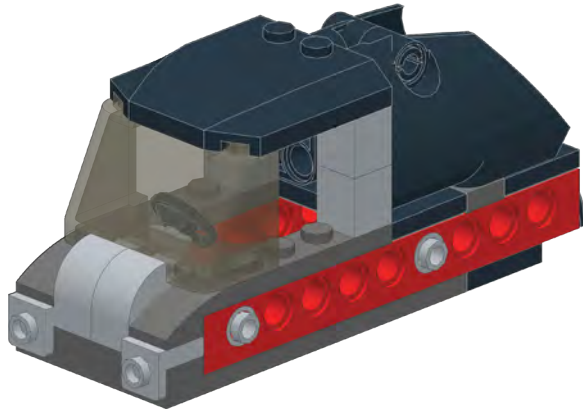
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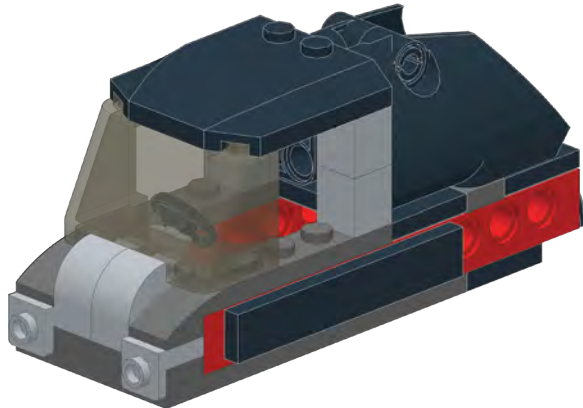
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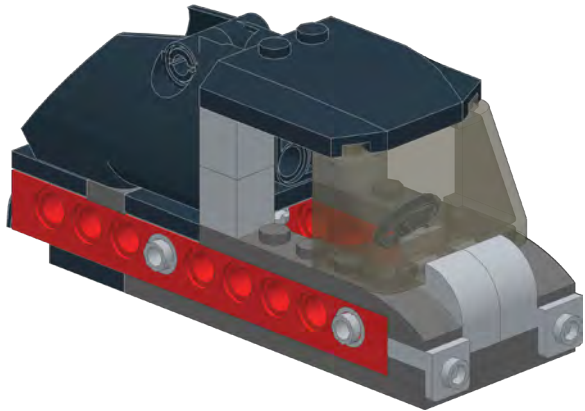
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26



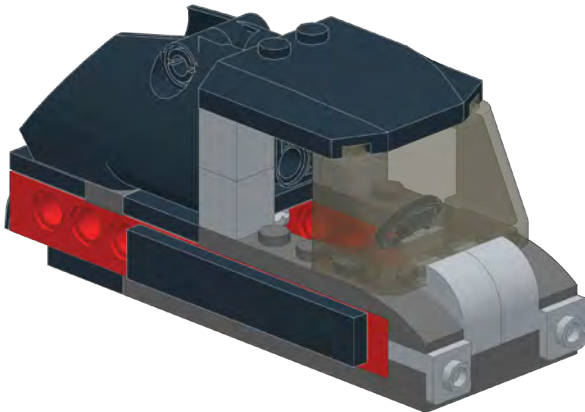
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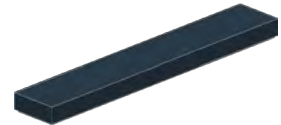
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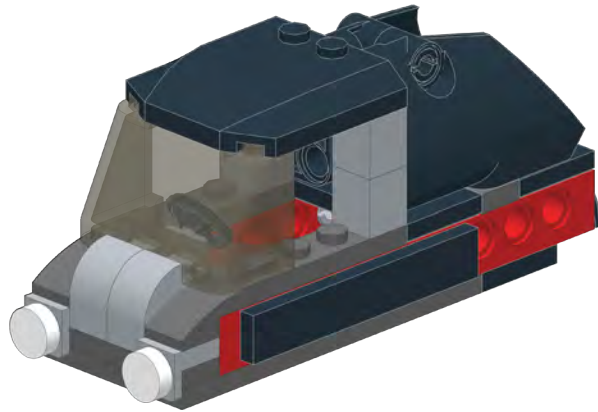
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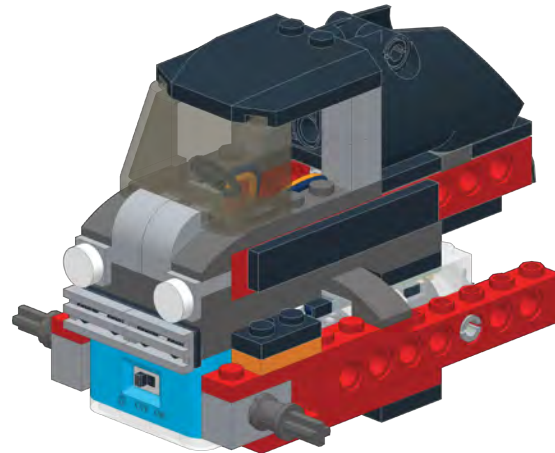
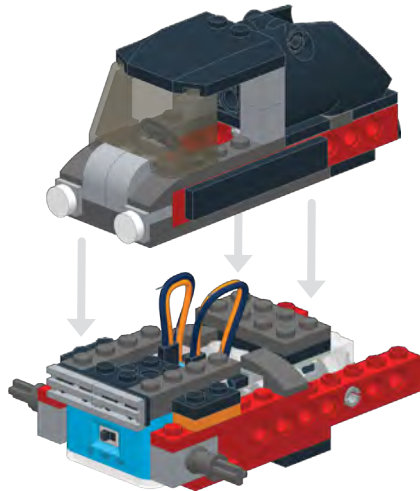
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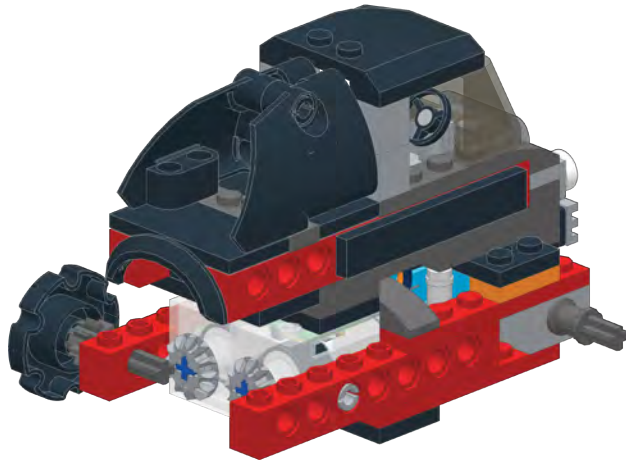
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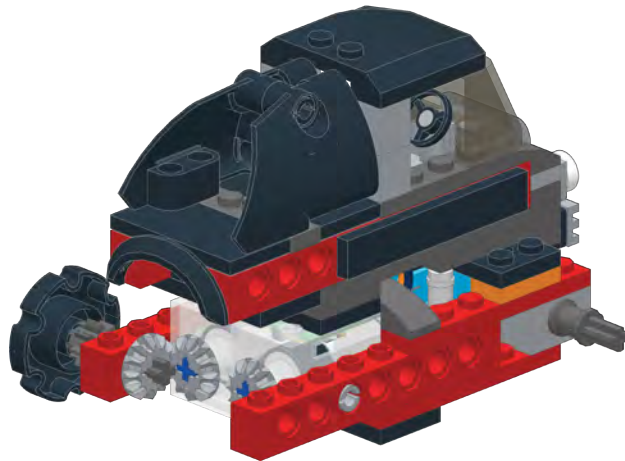
31



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- 4

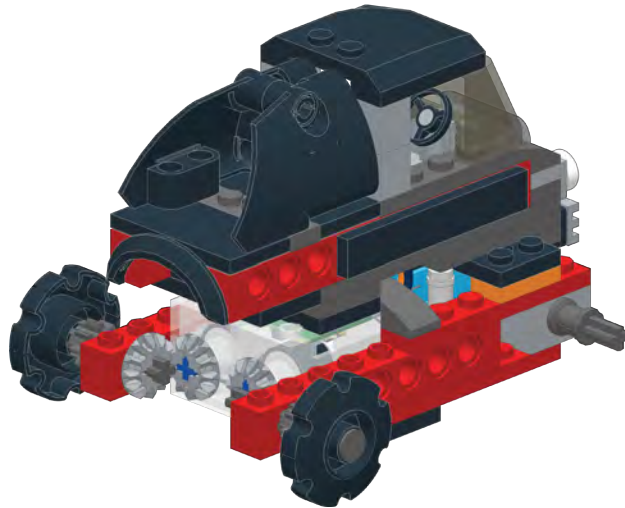
1:1 SCALE

32



- 1

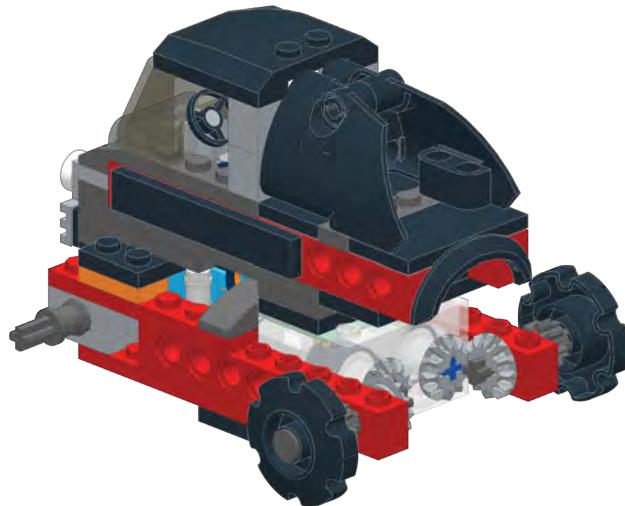
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1:1 SCALE



34





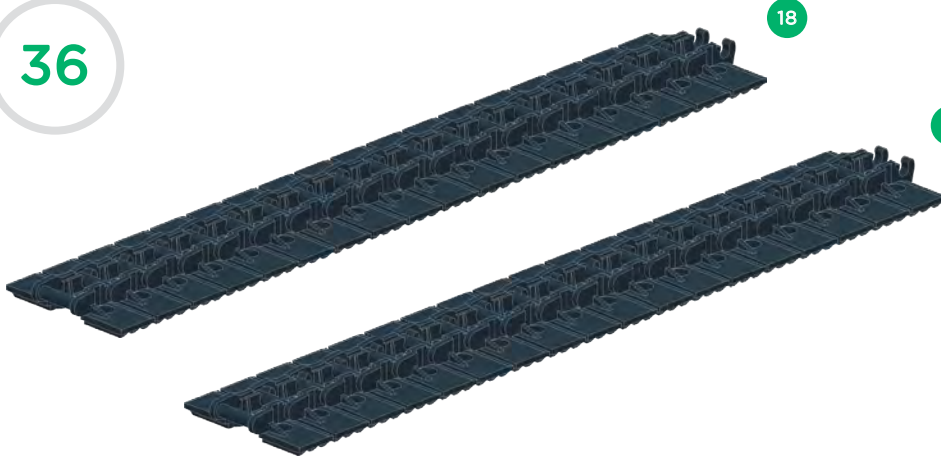
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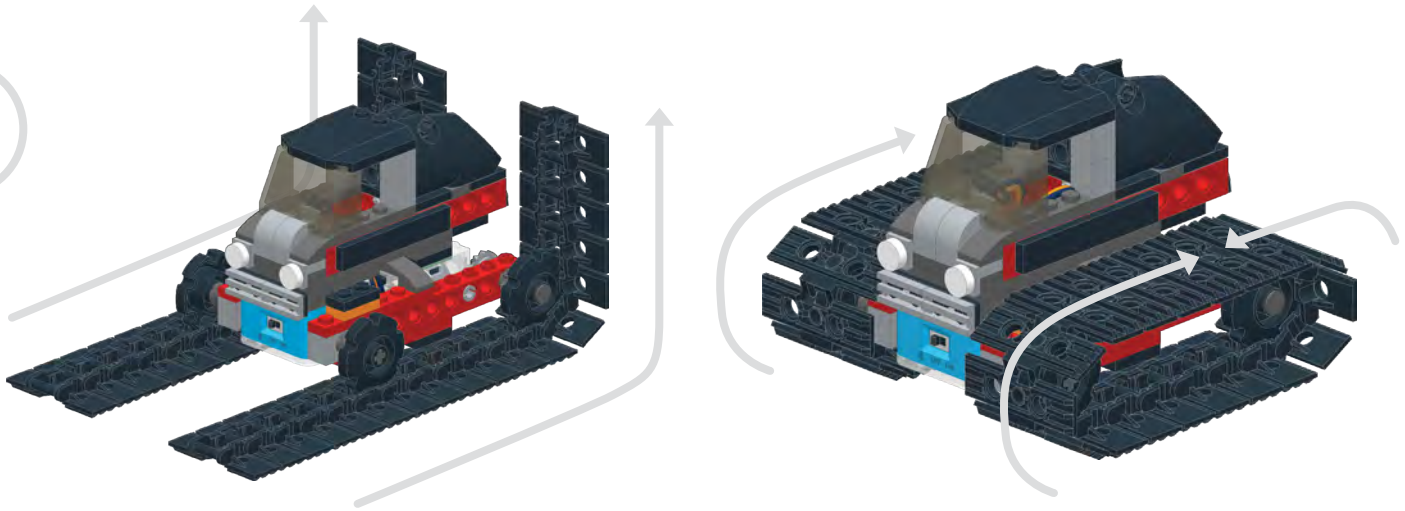
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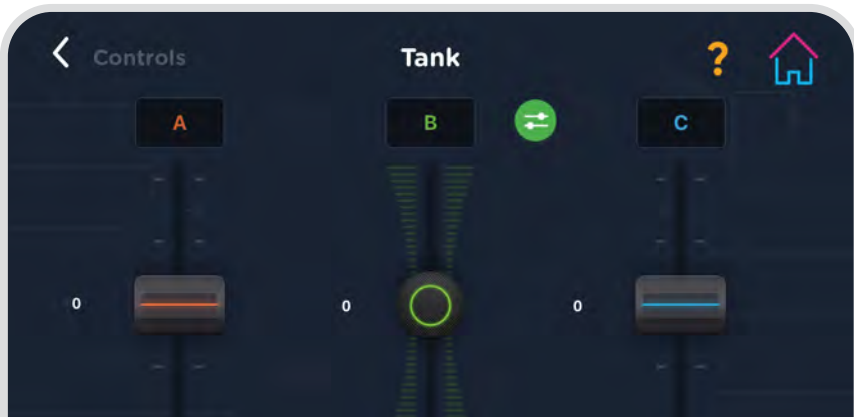




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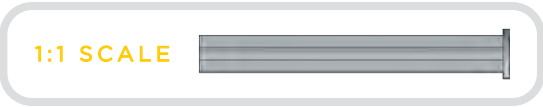
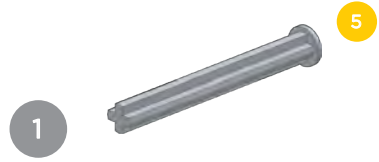
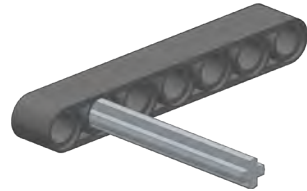
# XV-B1 CONTROLS



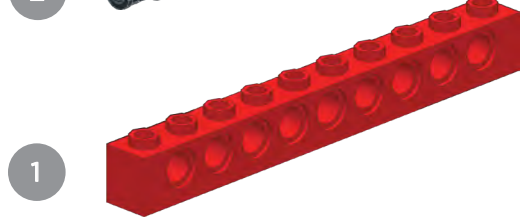
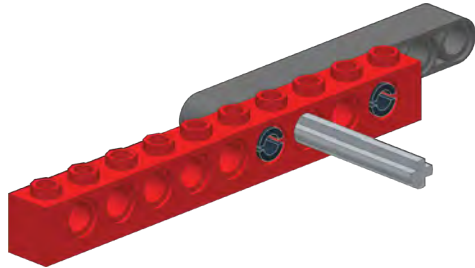
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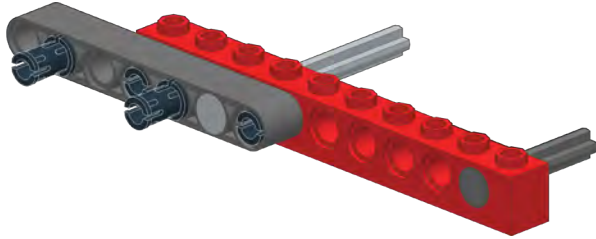
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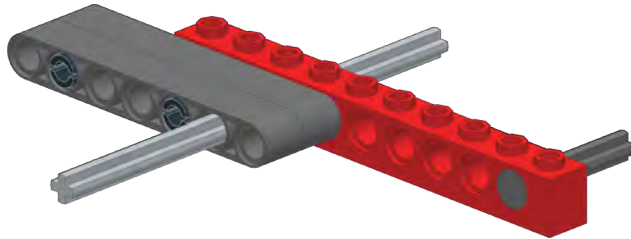
1:1 SCALE



1:1 SCALE



4

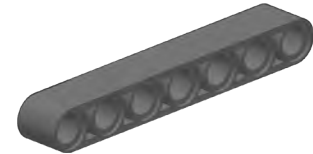


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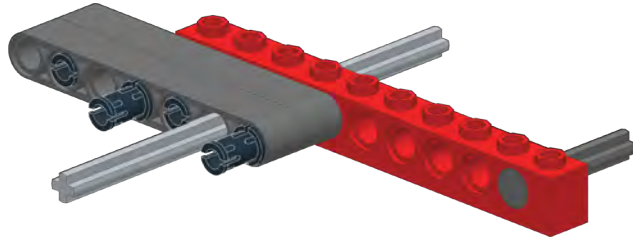


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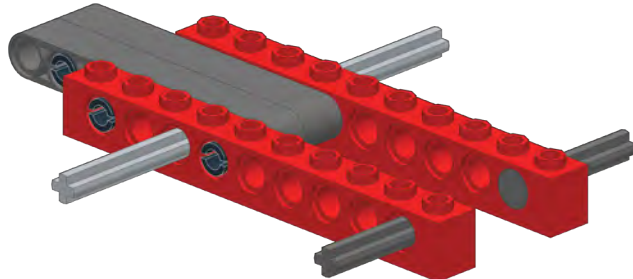


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1:1 SCALE

6

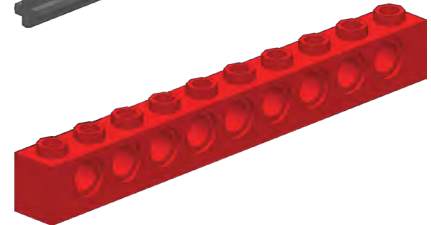


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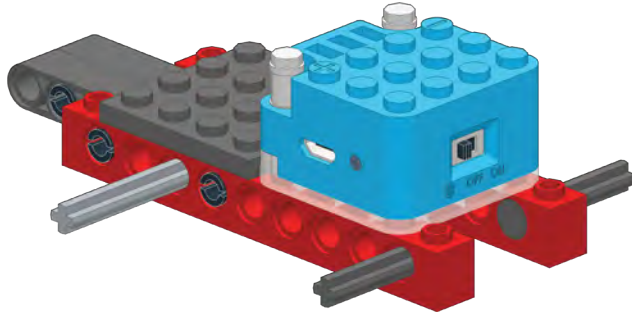


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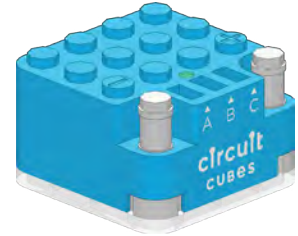
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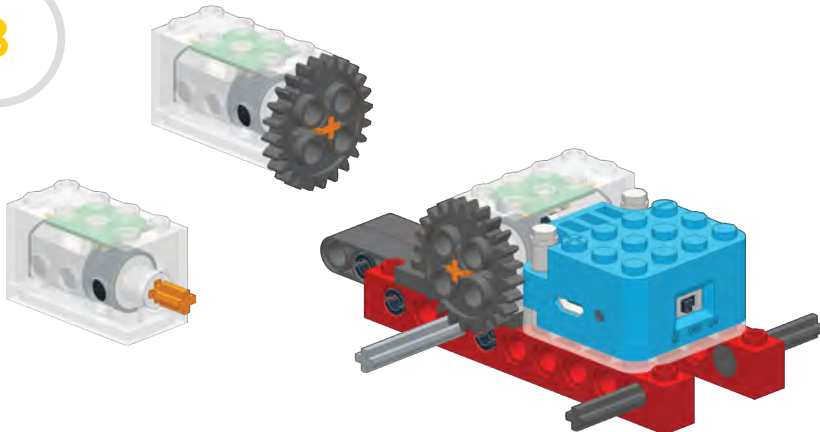
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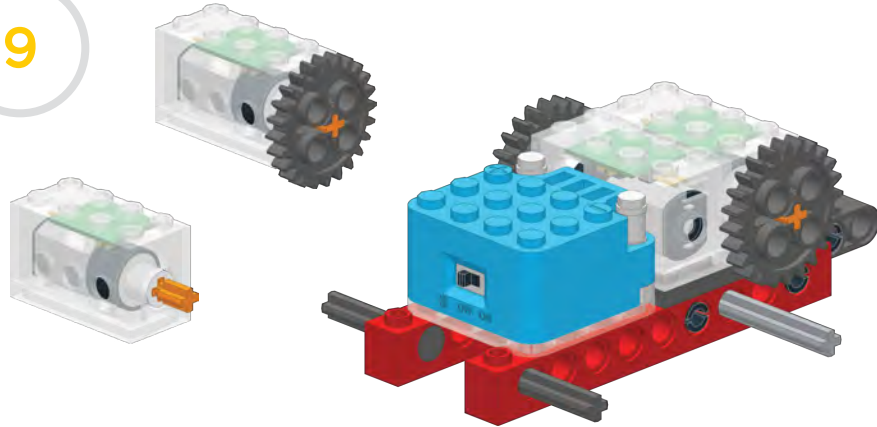
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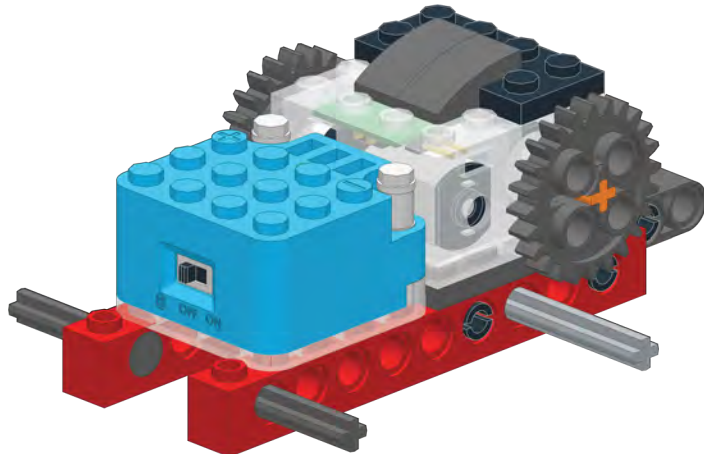
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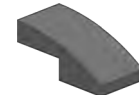
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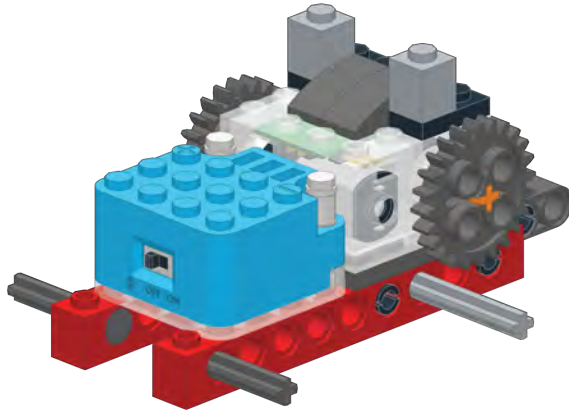
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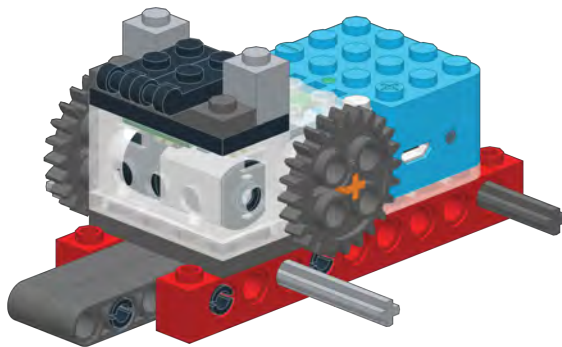
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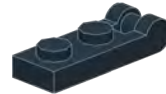
12



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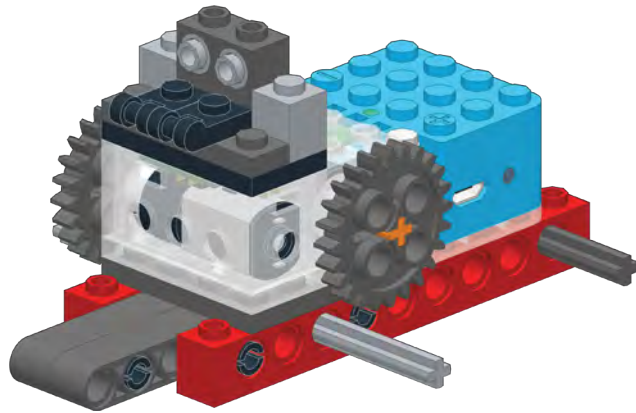


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13



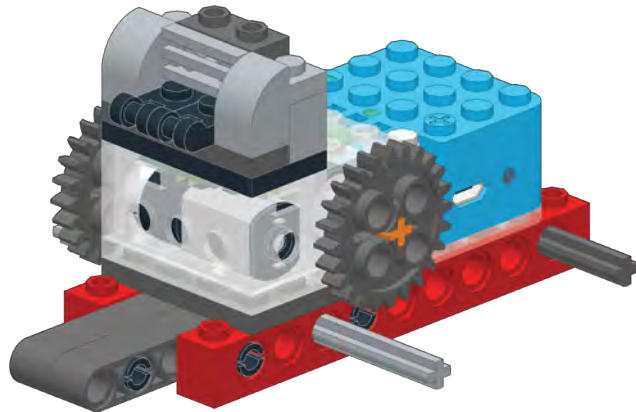
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14



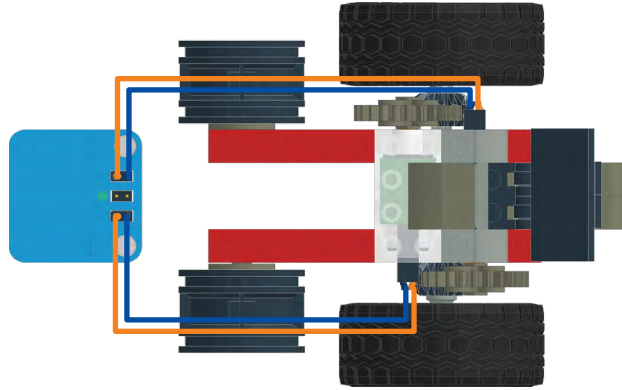
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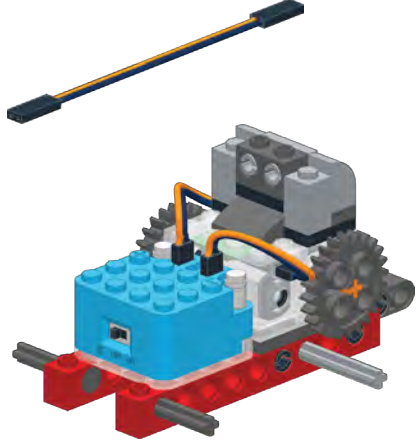
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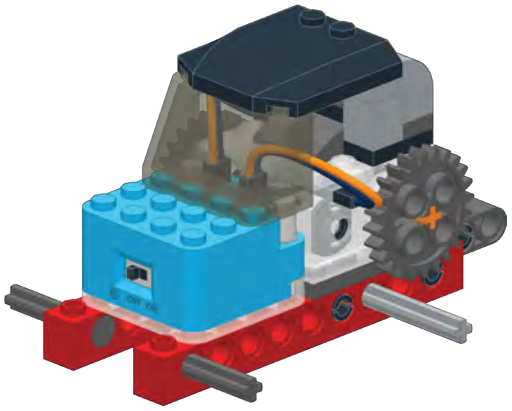
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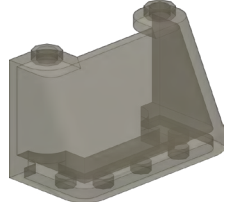
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16



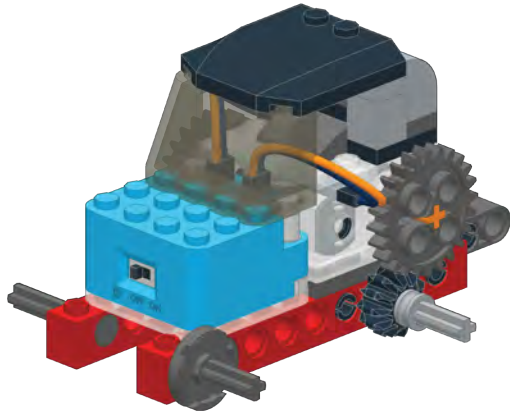
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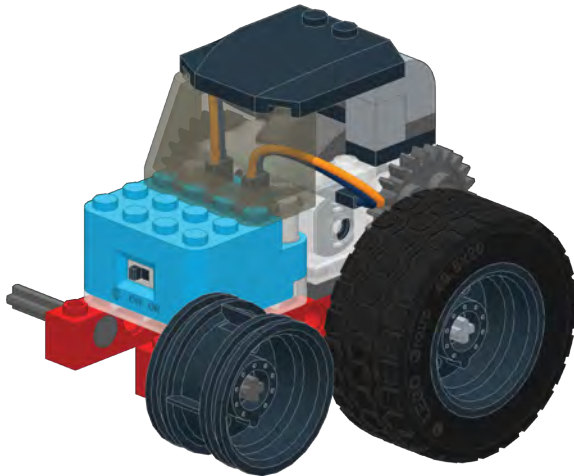
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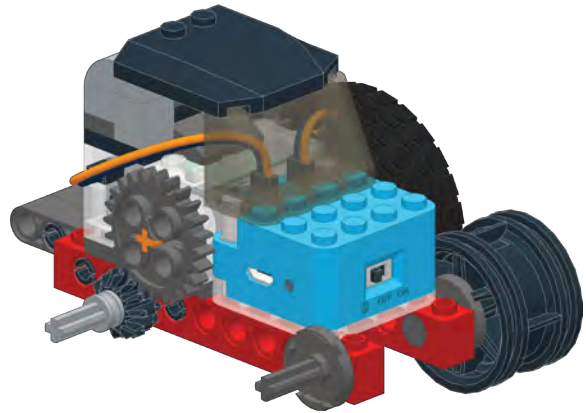
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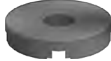




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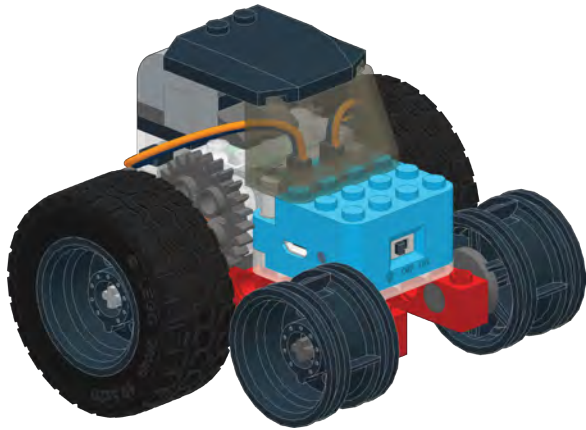


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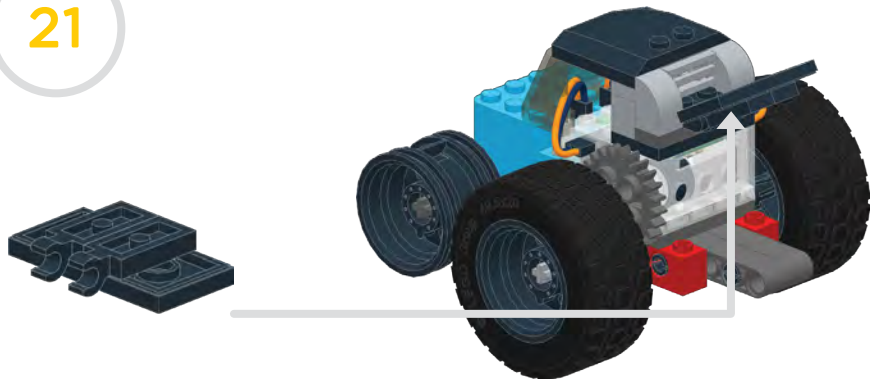
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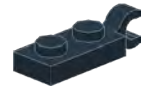


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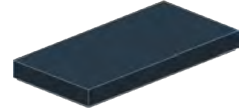
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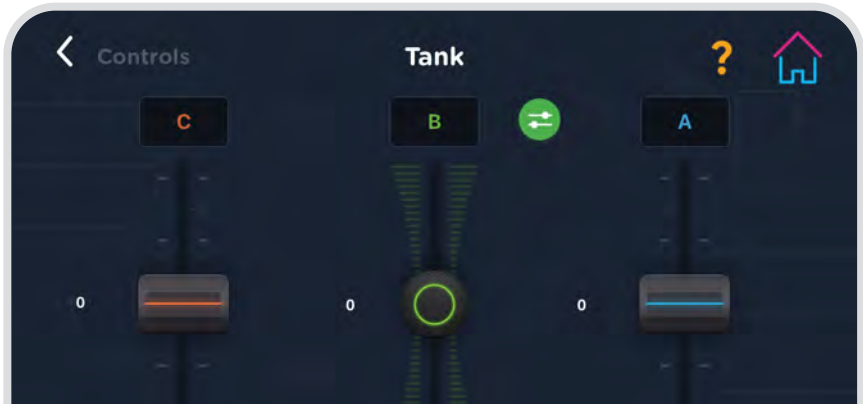
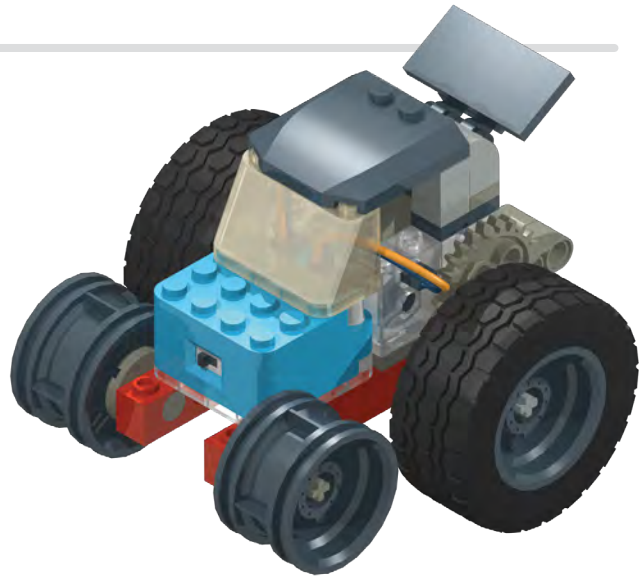
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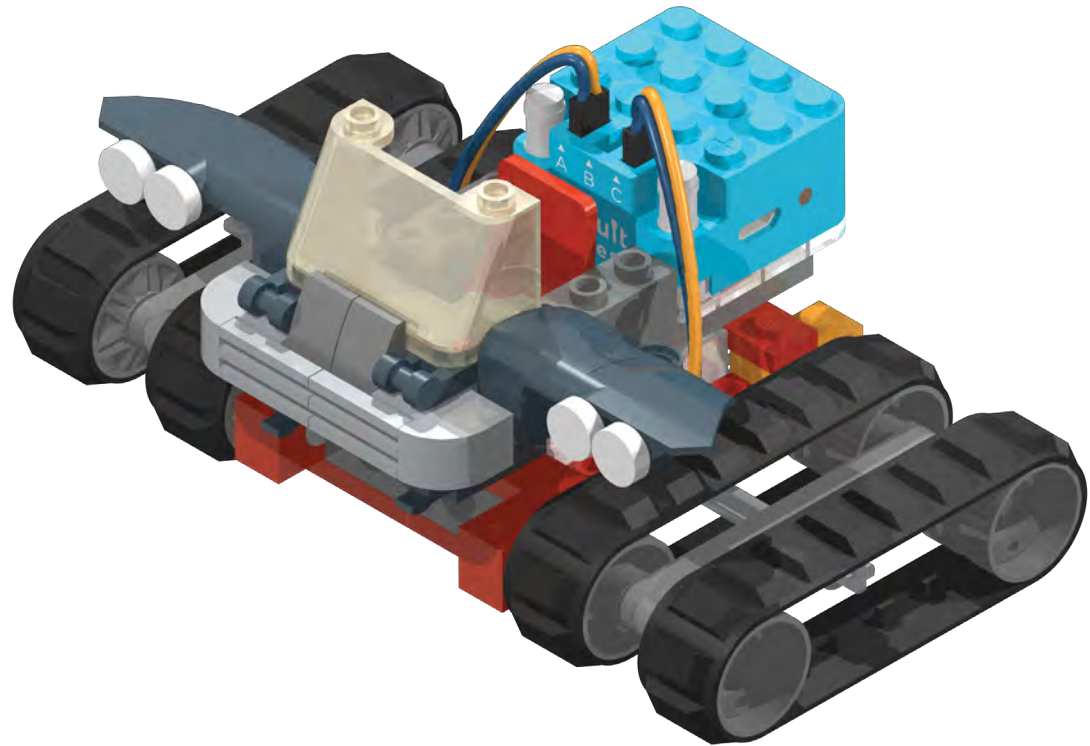
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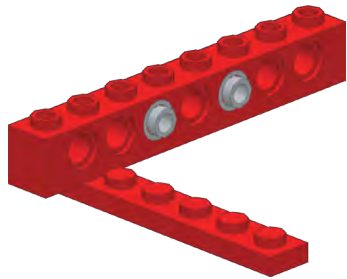
# XV-B2 CONTROLS



# XV-B3



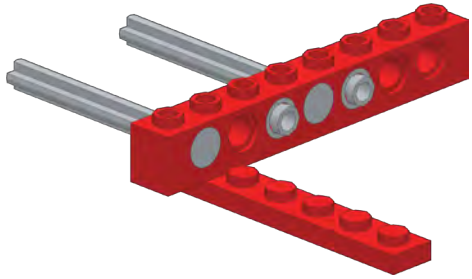
1



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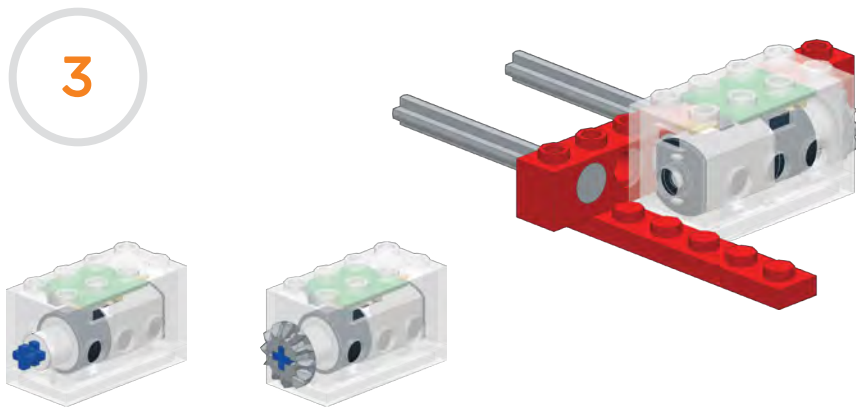


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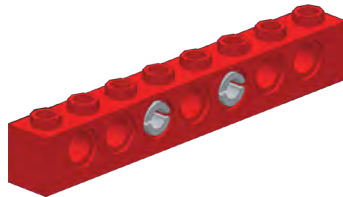
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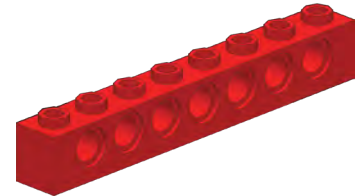
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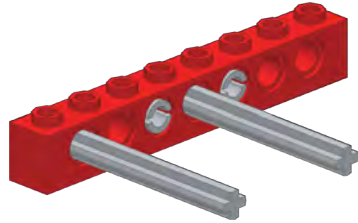


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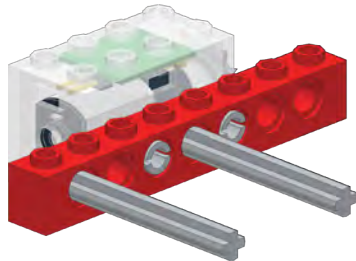


5

1:1 SCALE



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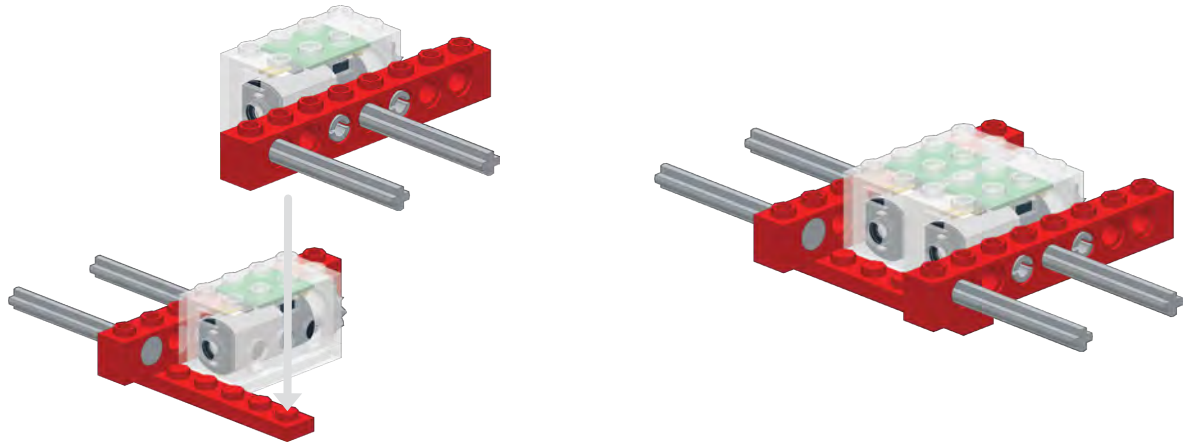
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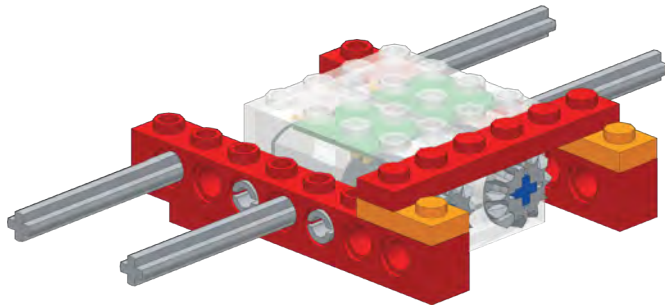
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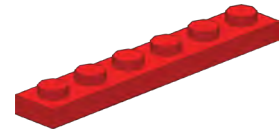
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8



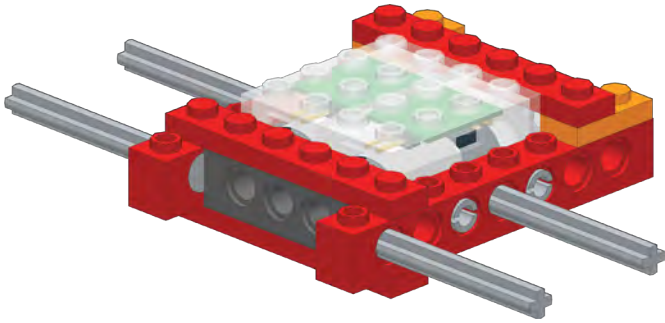
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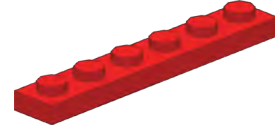
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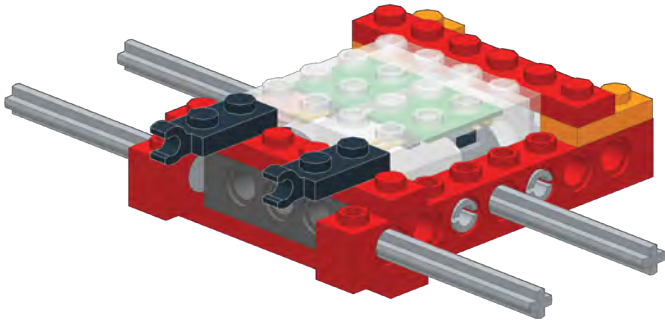
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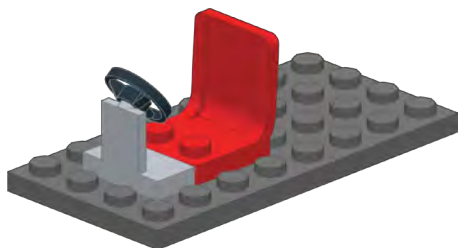
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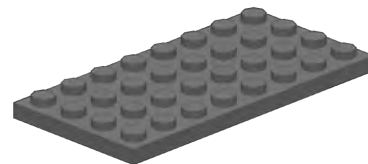
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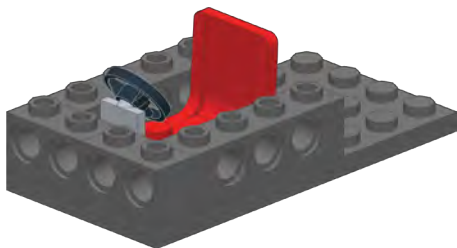
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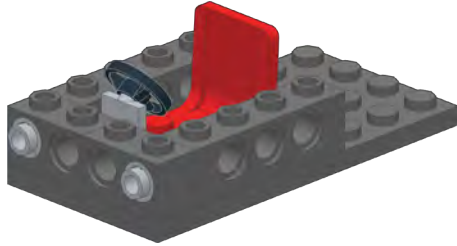
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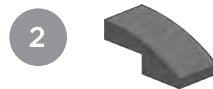
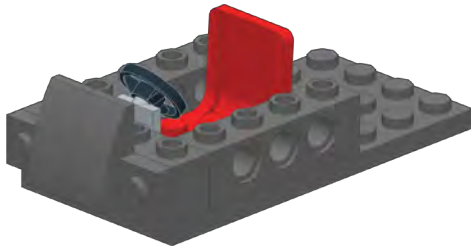
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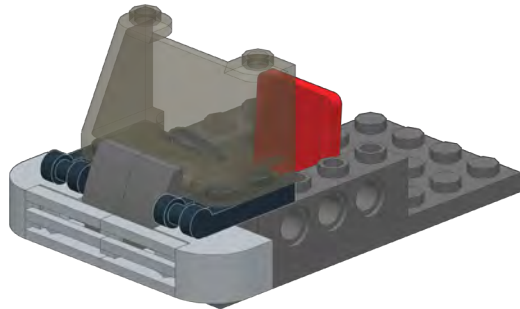
13



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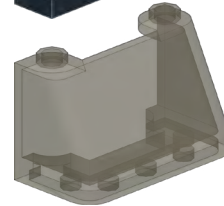
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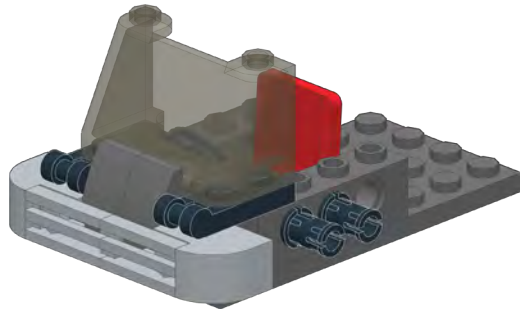
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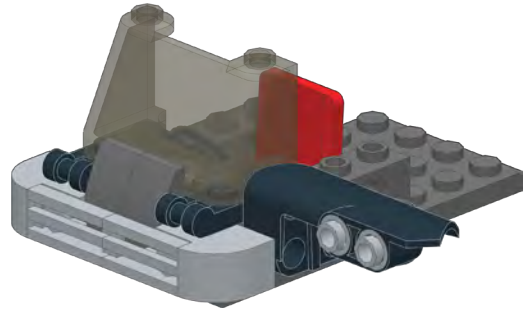
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17



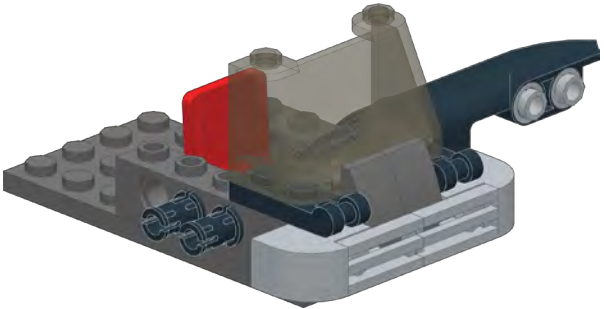
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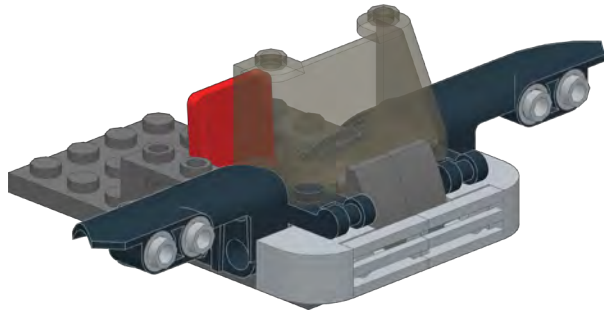
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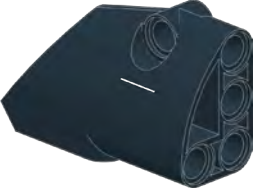



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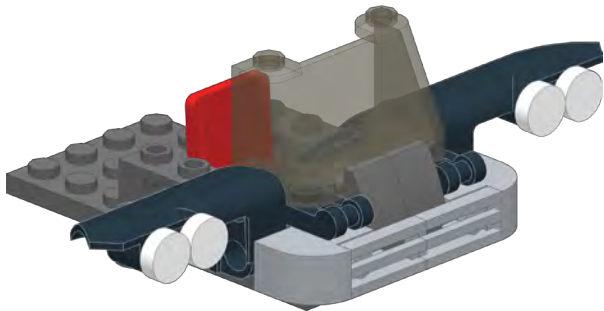


19



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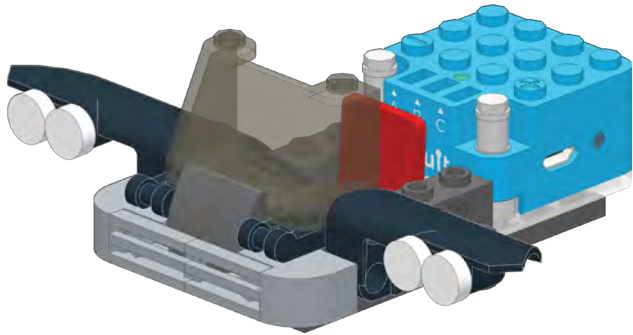
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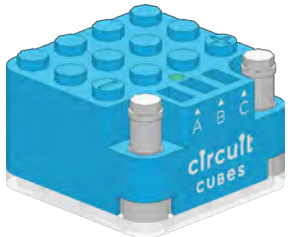
- 4 



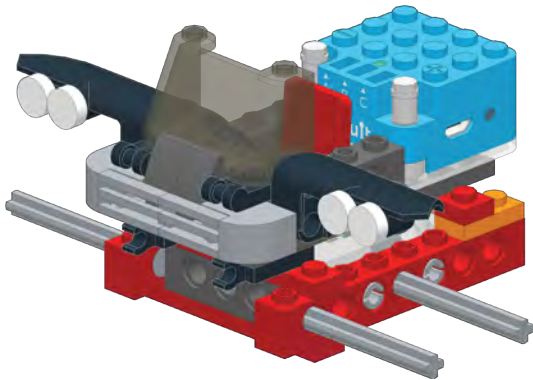
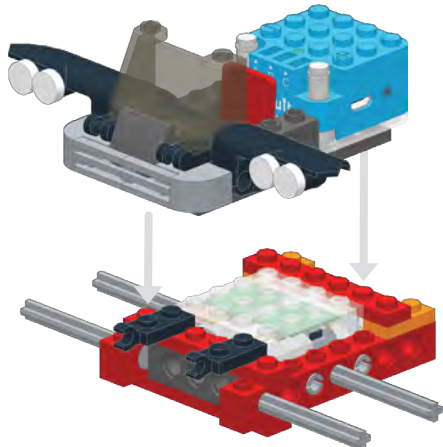
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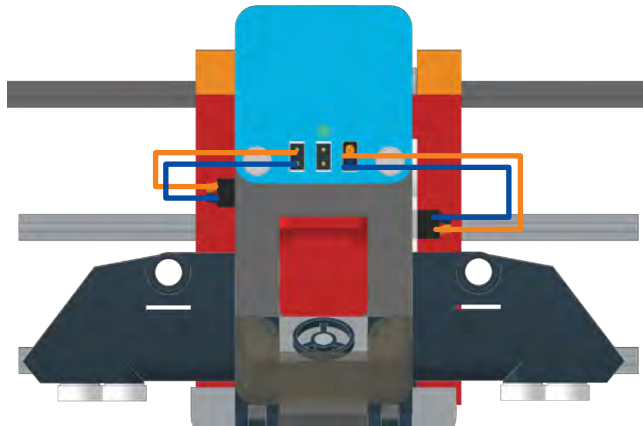
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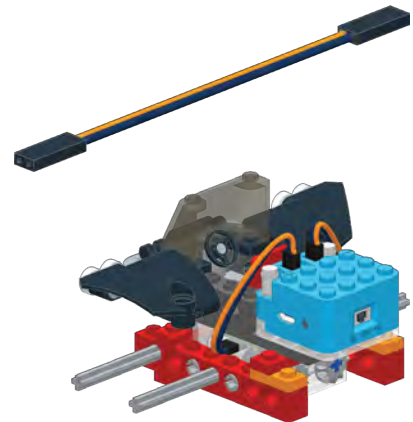
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23

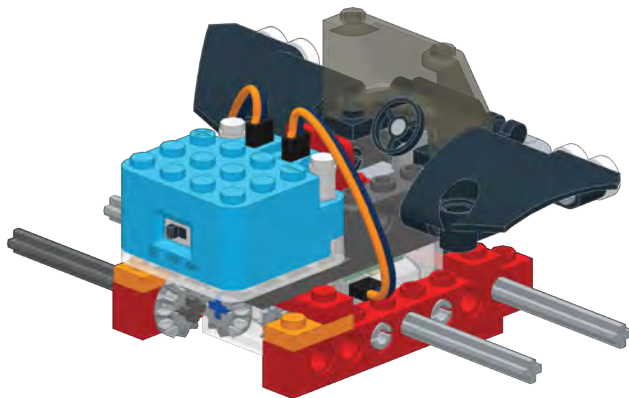


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1:1 SCALE

24



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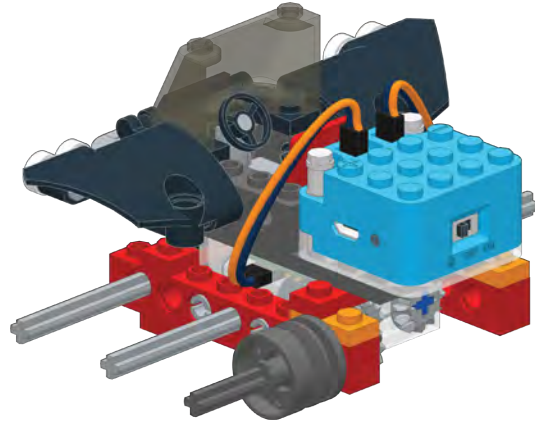


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25



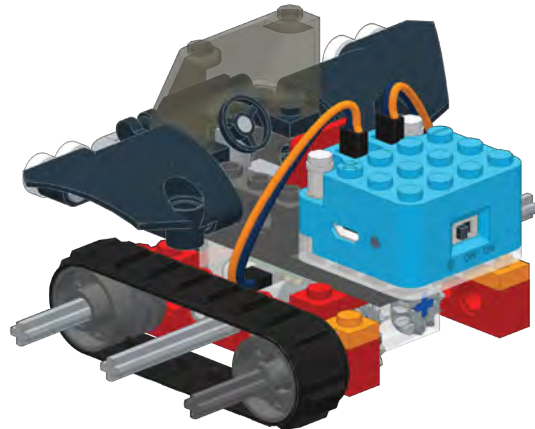
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1



26



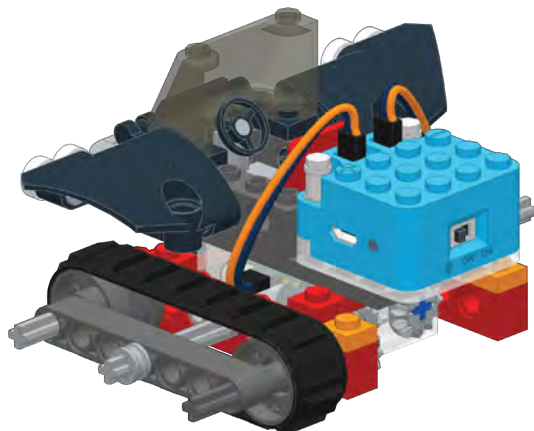
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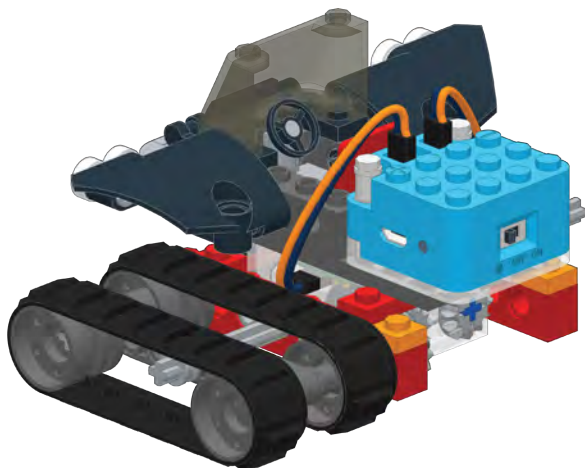
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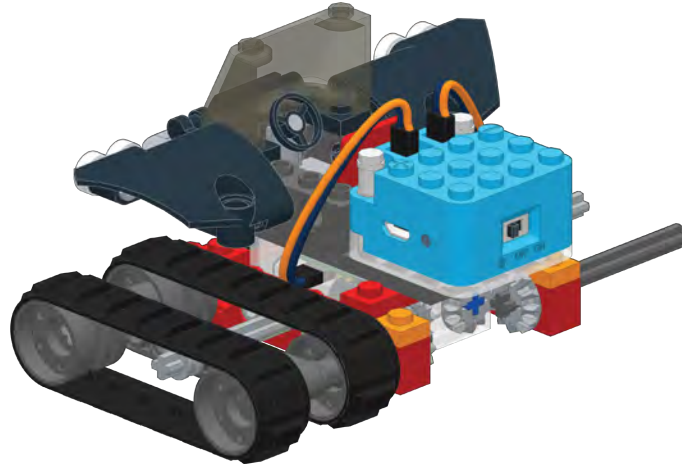
27



28



29



1



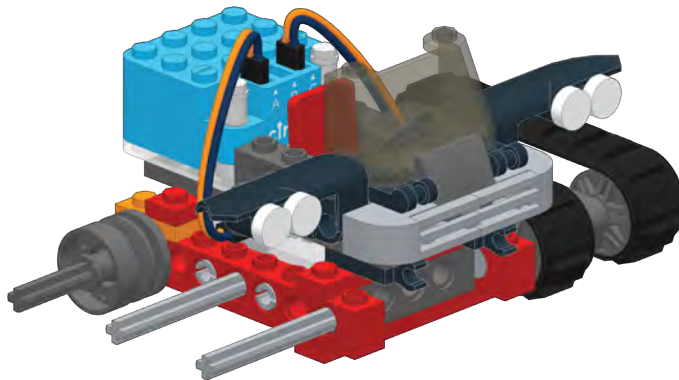
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1



1:1 SCALE

30



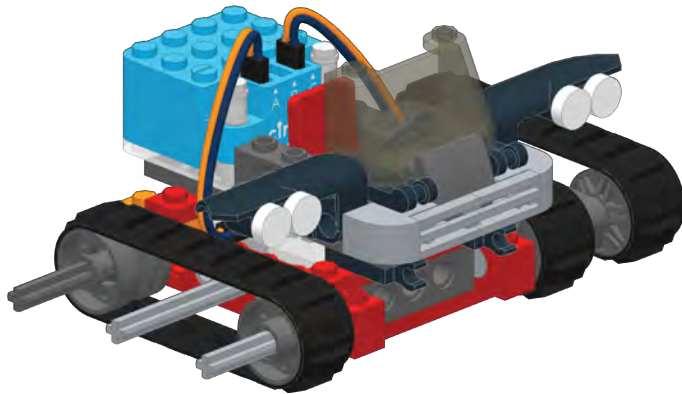
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1



31



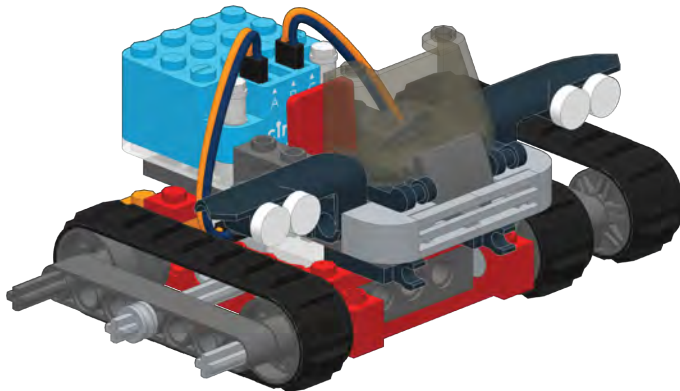
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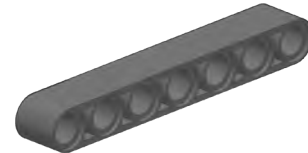
32



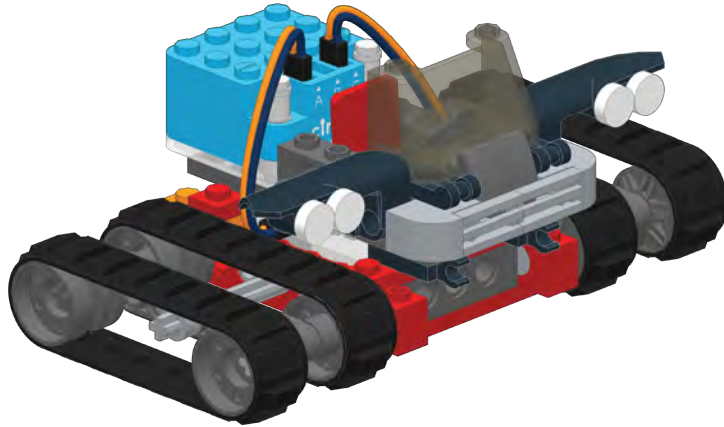
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33



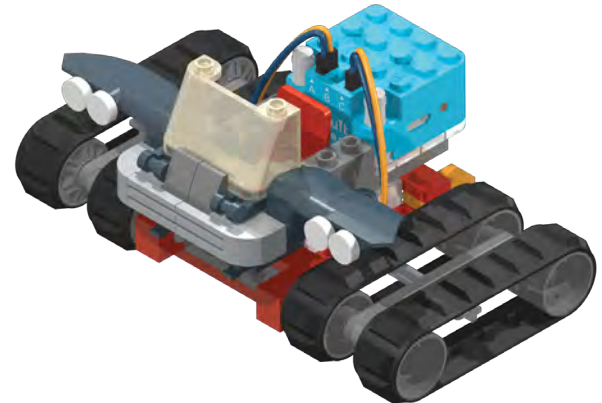
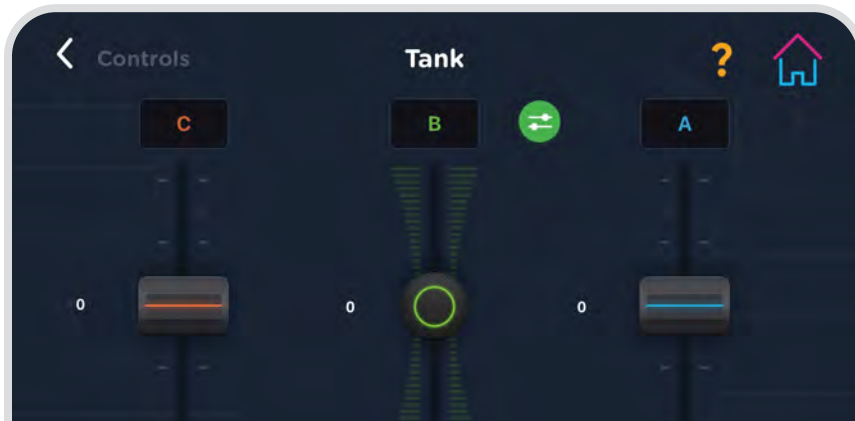
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2



## XV-B3 CONTROLS



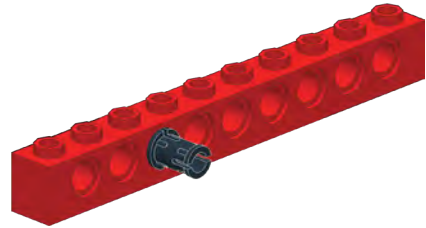


# *XV-B4*





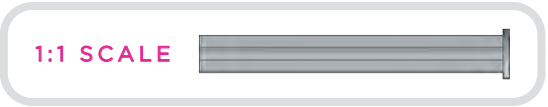
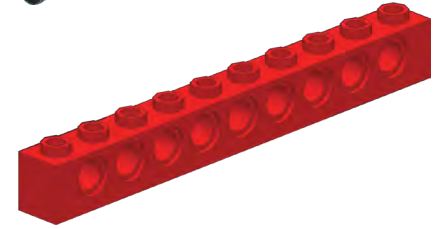
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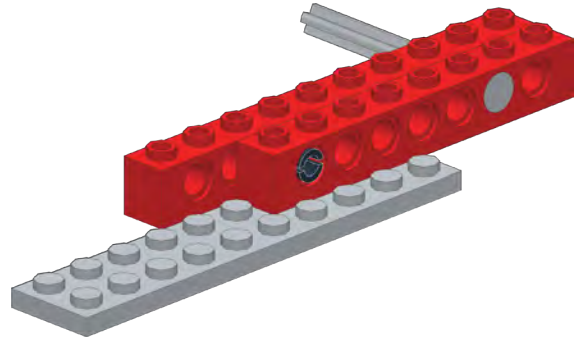
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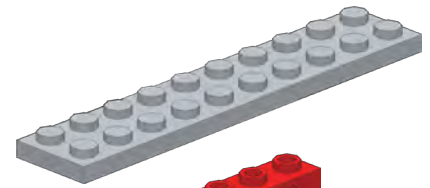
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2



1



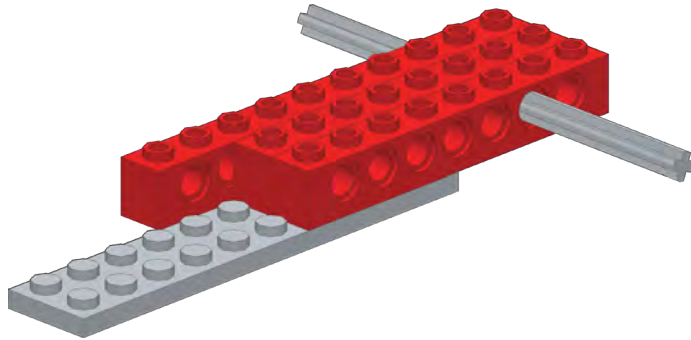
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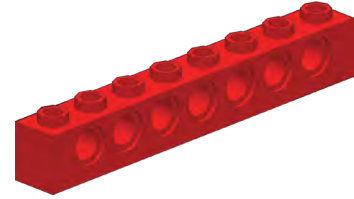


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5

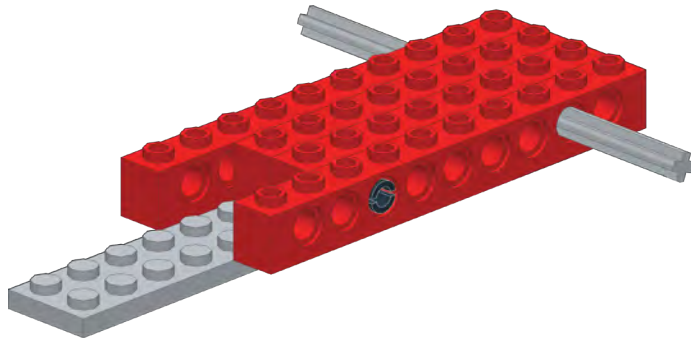
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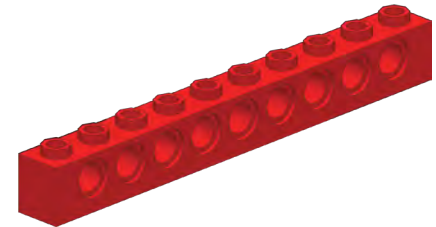
1:1 SCALE



4



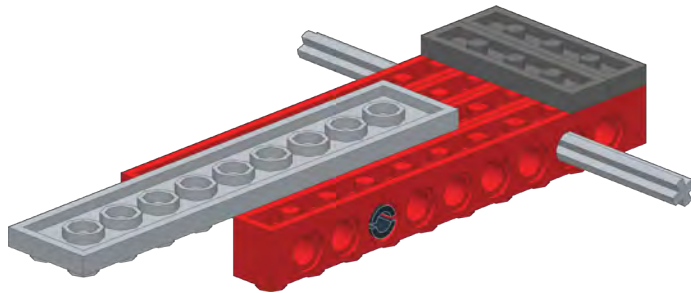
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1



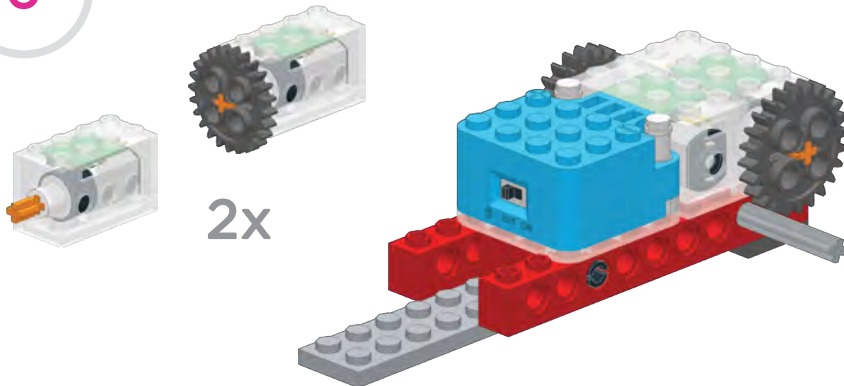
5



2



6



2x

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2



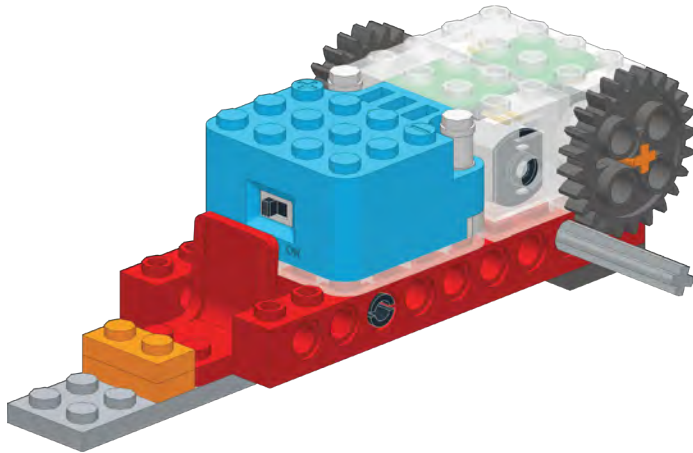
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2



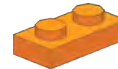
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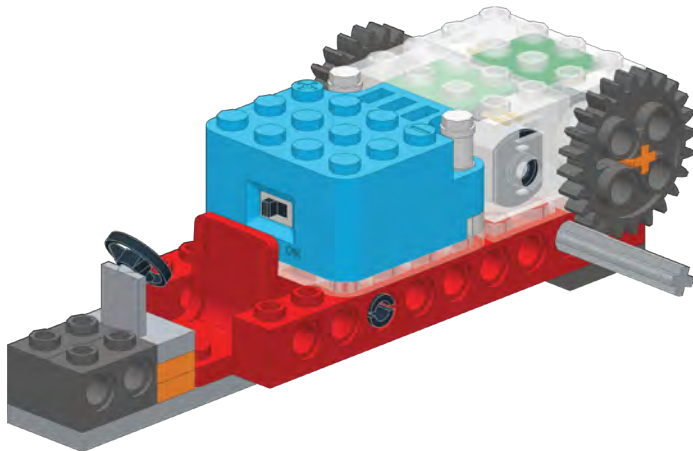
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8



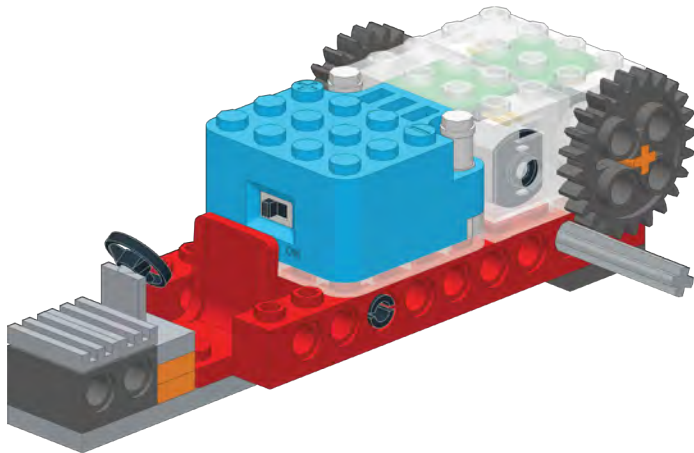
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1



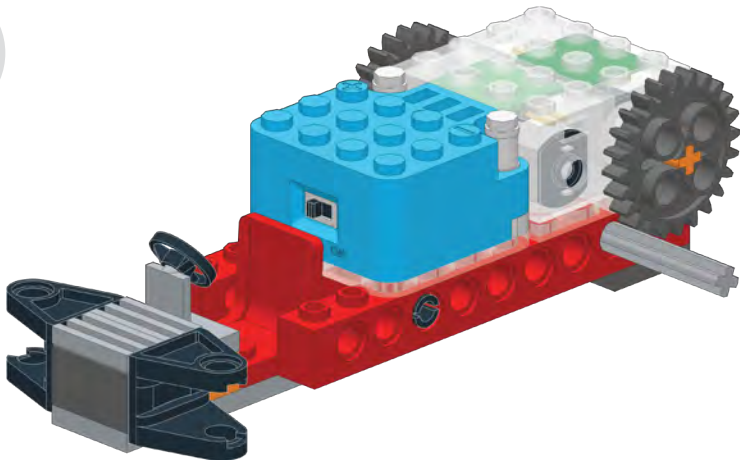
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2



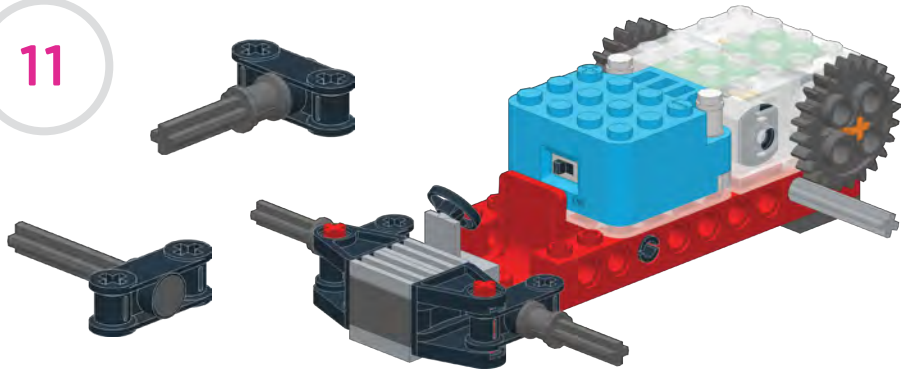
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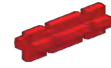
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11



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2



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4

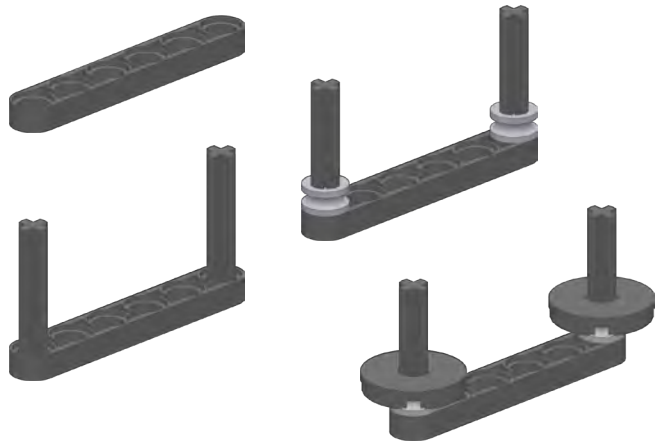
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1:1 SCALE 

1:1 SCALE 

12



2



2

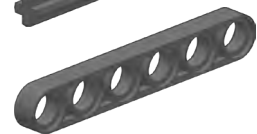


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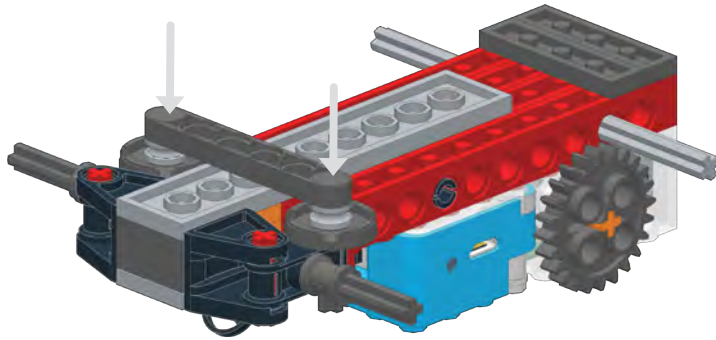
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1



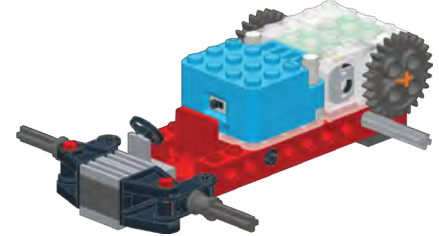
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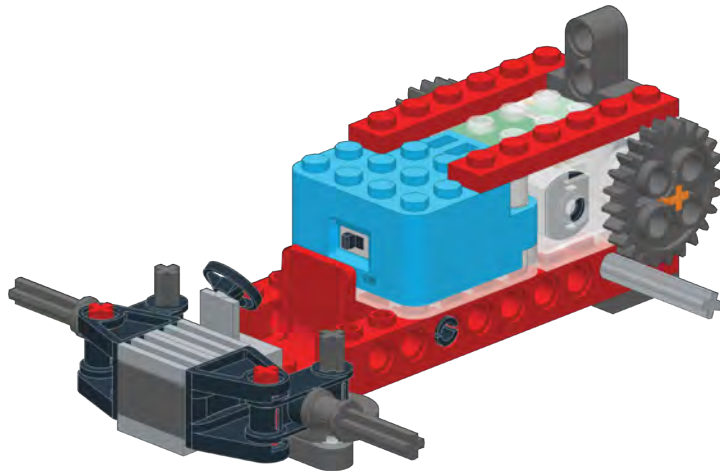
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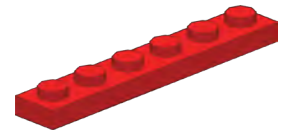
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14



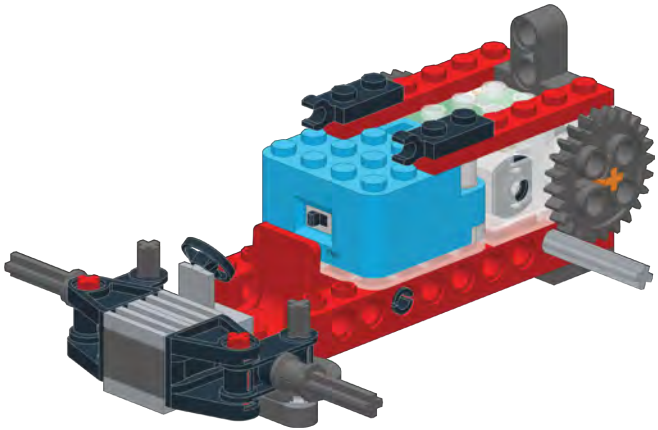
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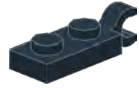
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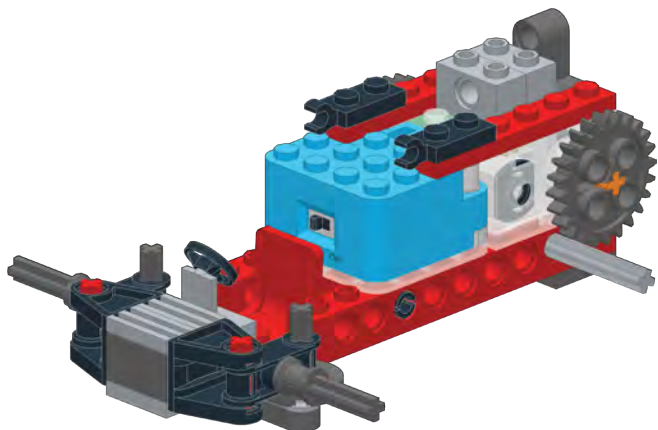
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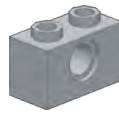
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16

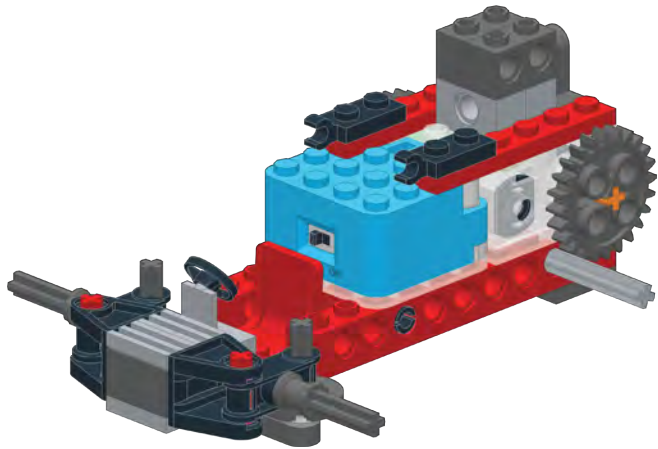


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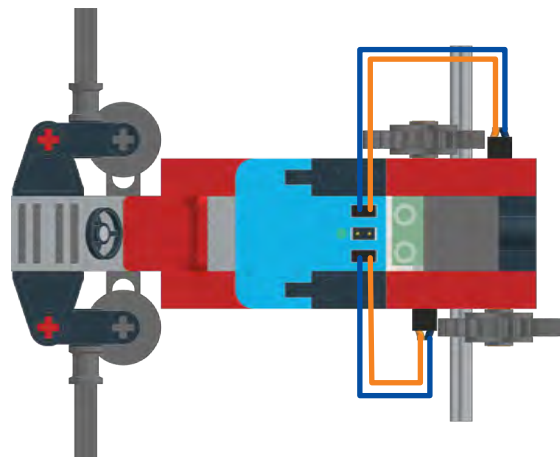
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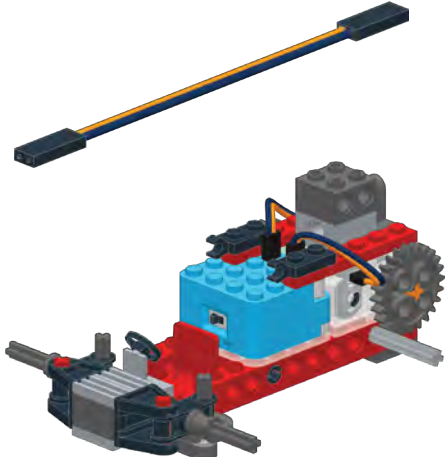
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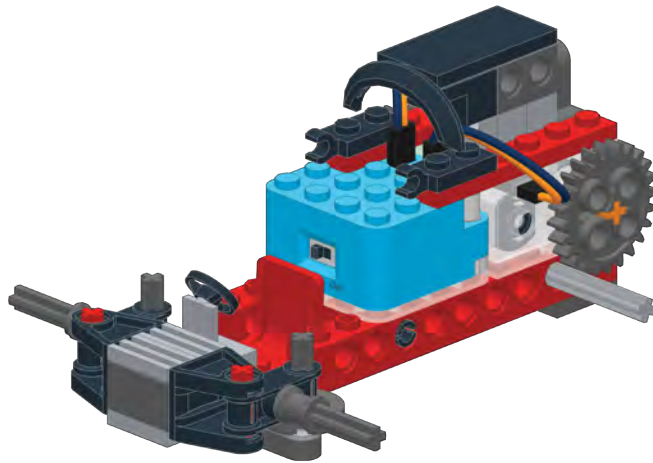
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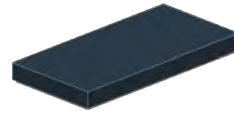
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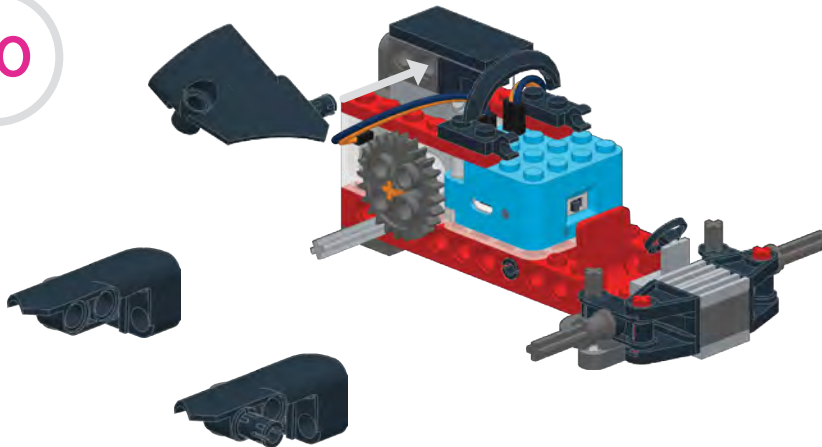
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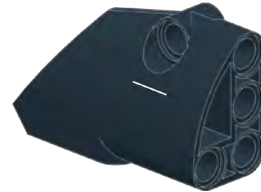
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20



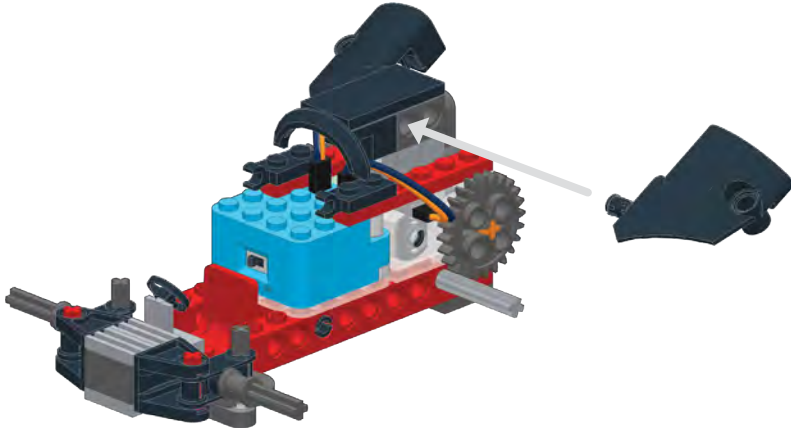
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21



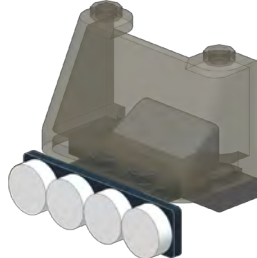
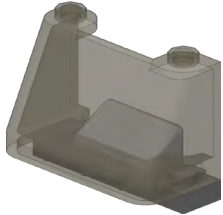
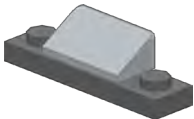
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22



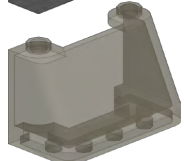
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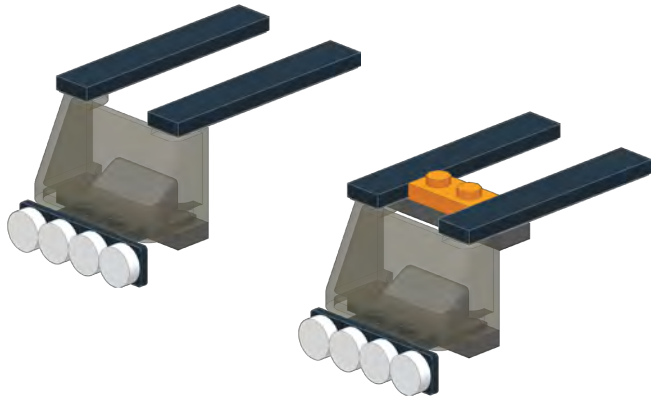
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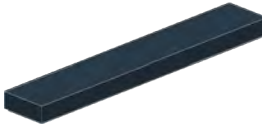




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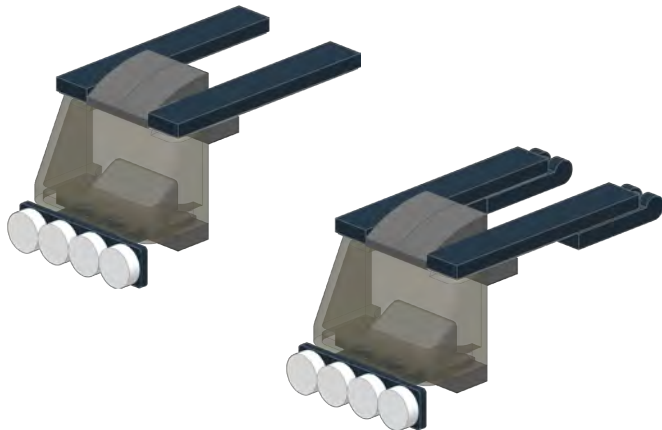


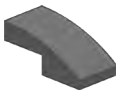

23



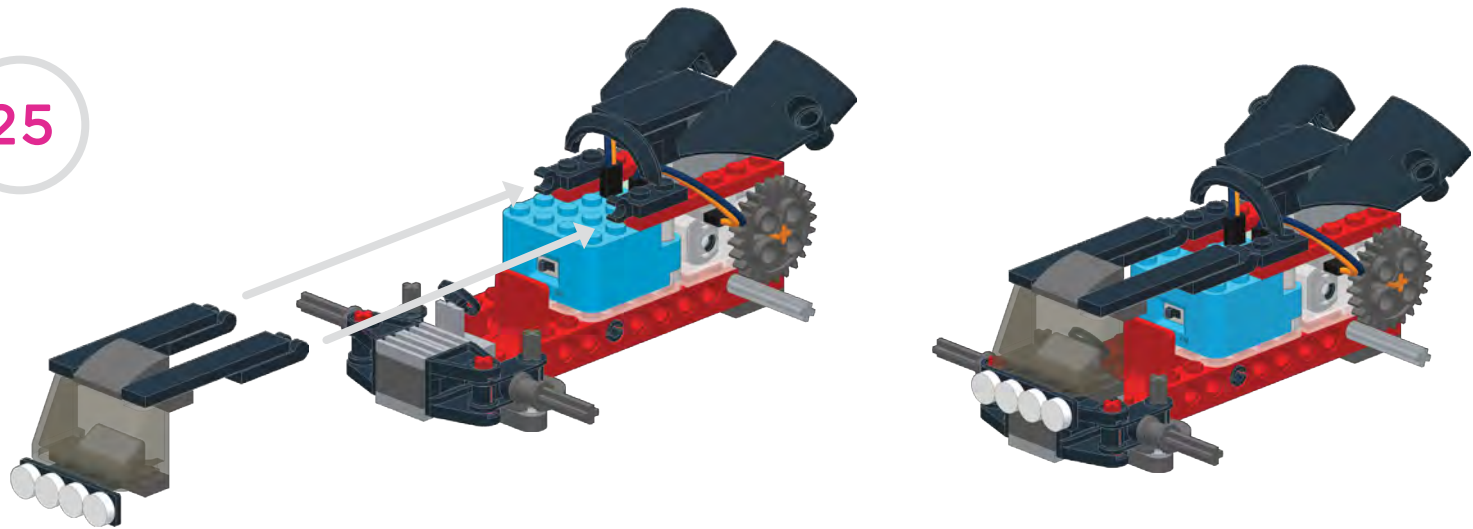
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24

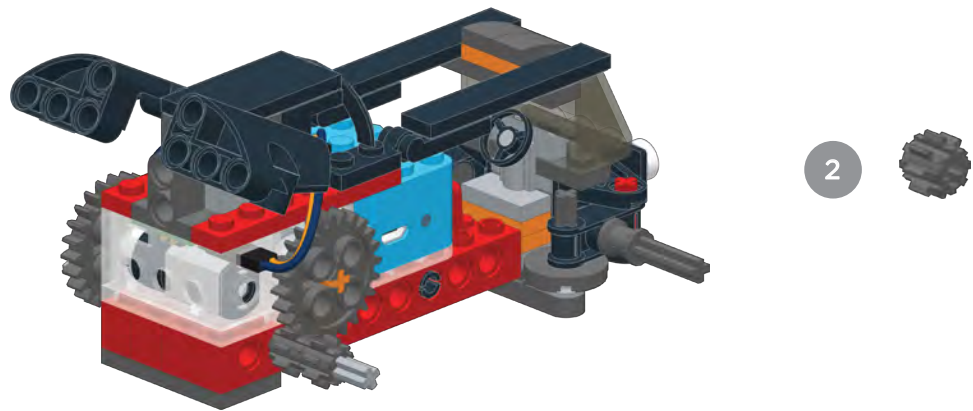


- 2 
- 2 

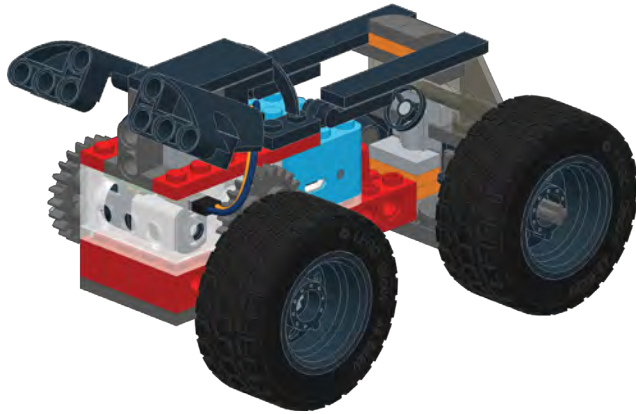
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26



27



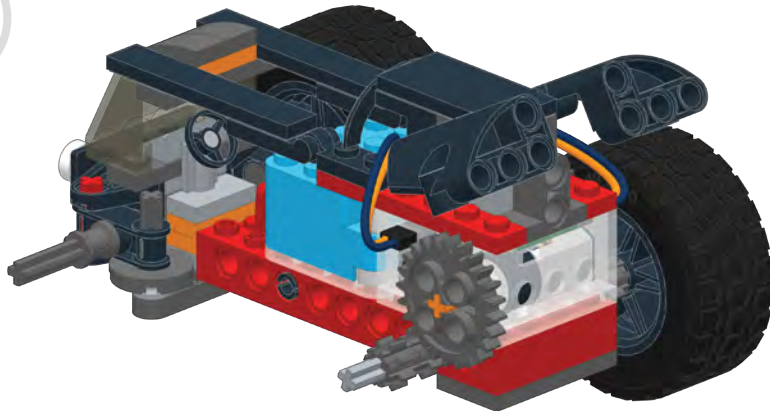
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2



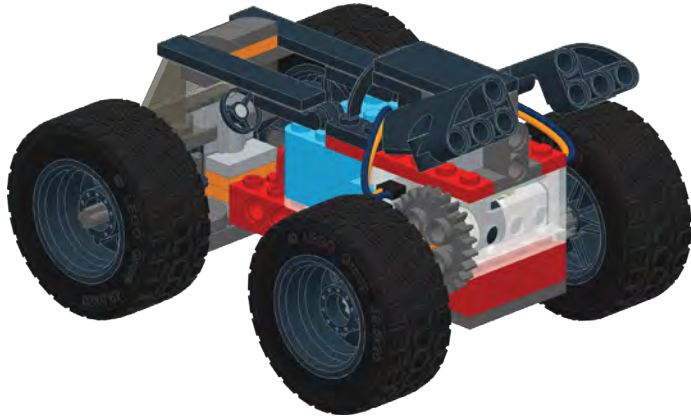
28



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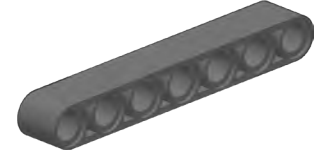




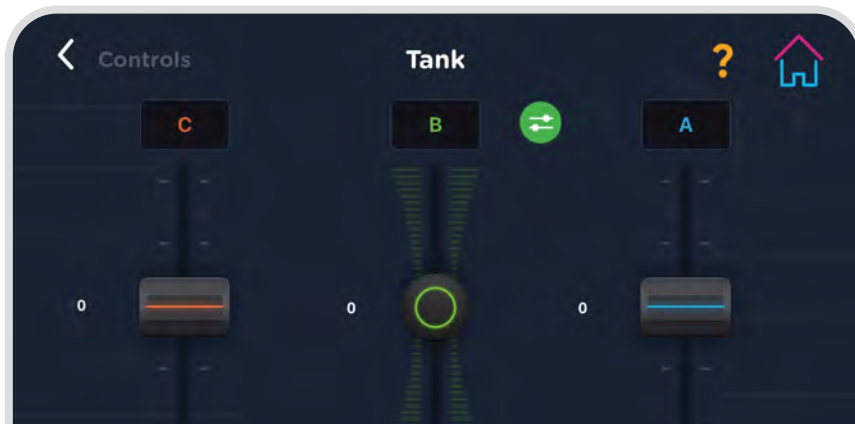
31



1

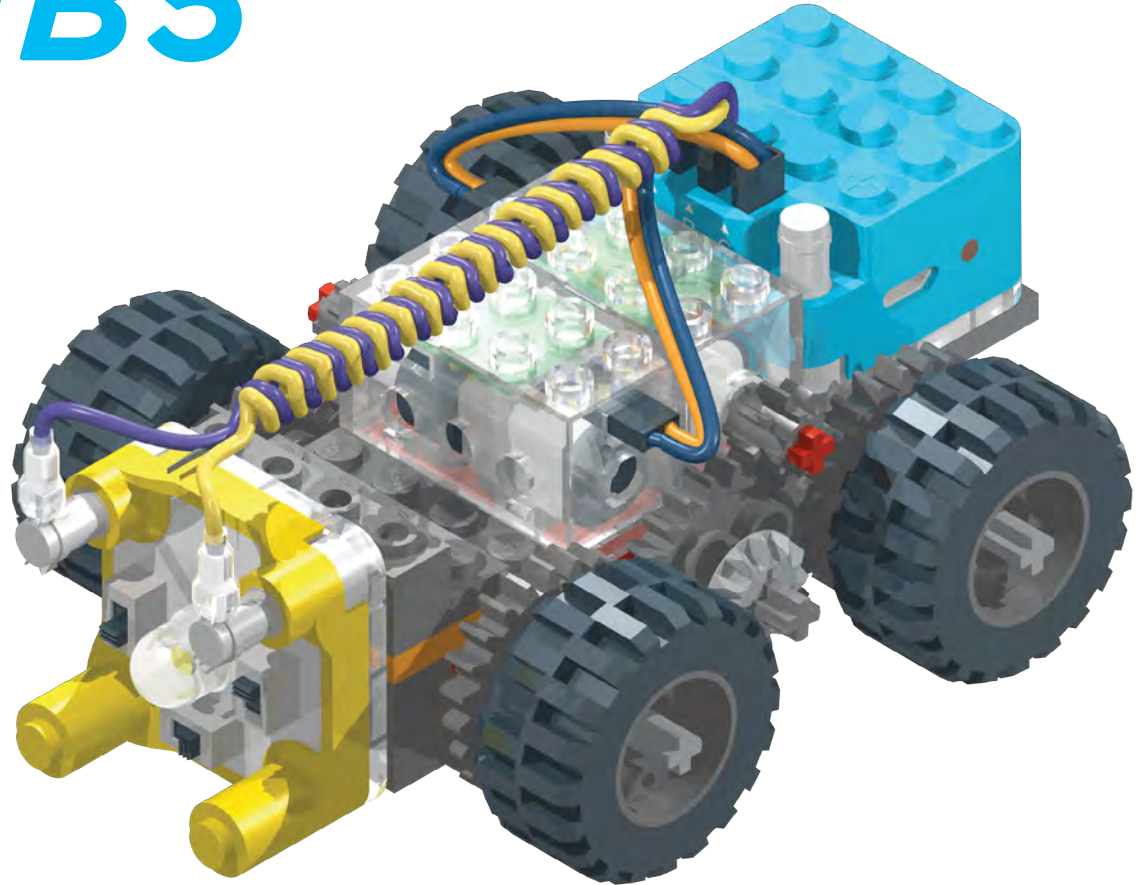


## XV-B4 CONTROLS

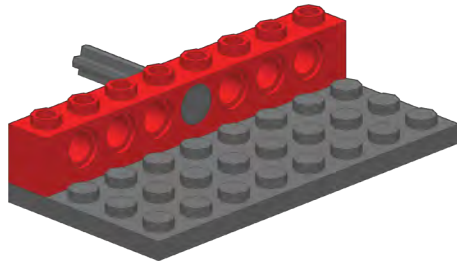




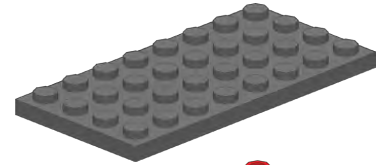
# XV-B5



1



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1



1



3

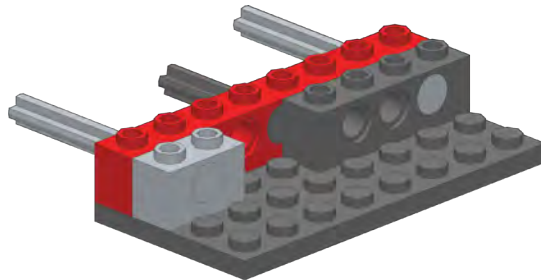
1:1 SCALE



1:1 SCALE



2



1



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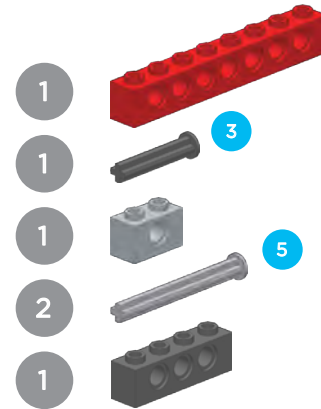
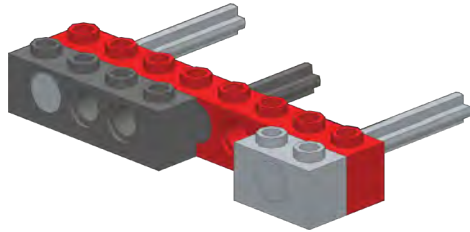


2



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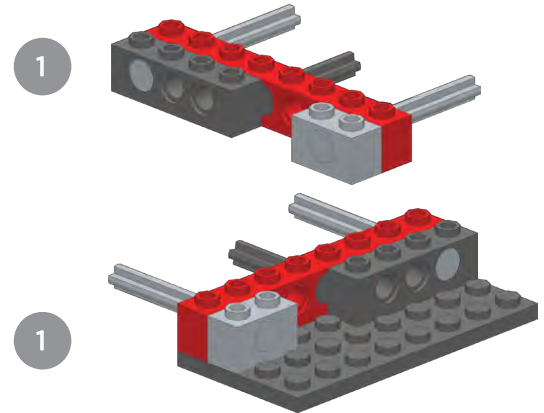
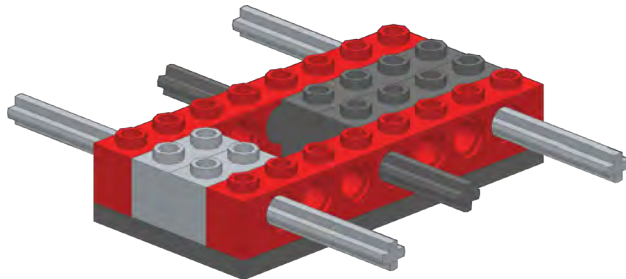
1:1 SCALE



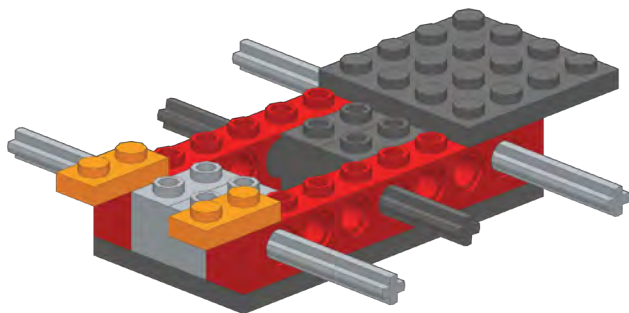
1:1 SCALE



4



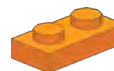
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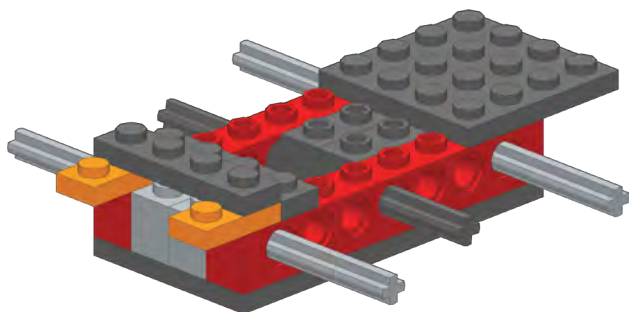
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2



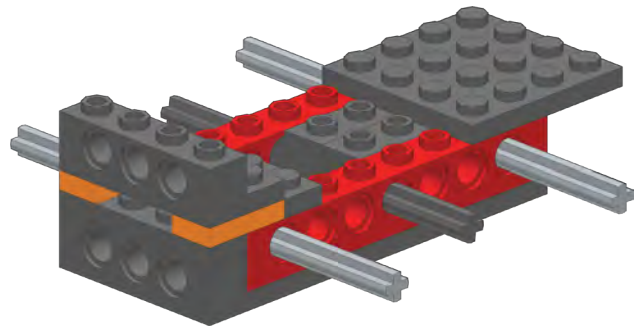
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2



7



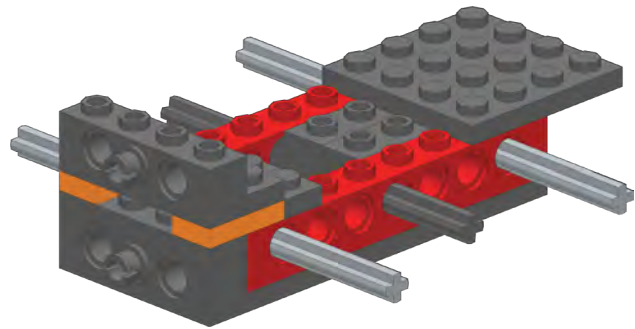
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2



8



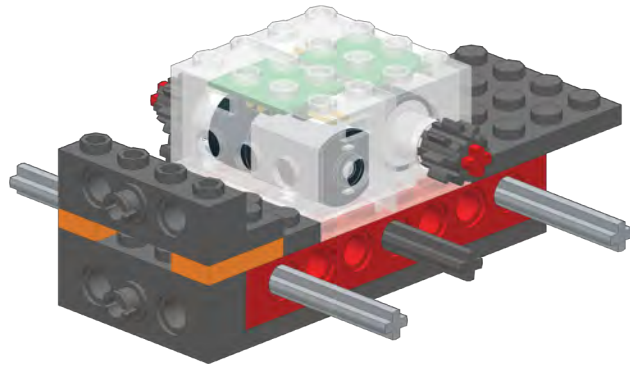
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9



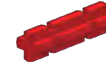
2x



2



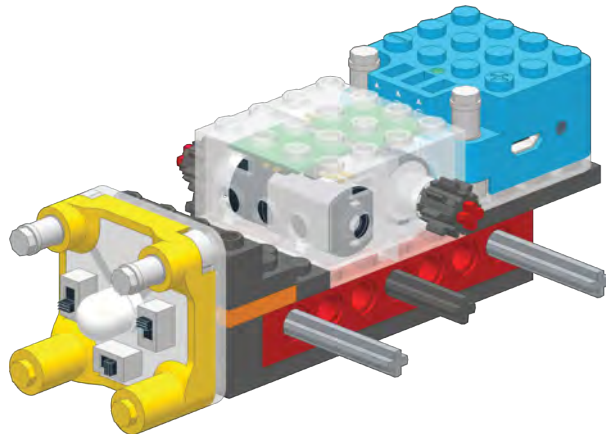
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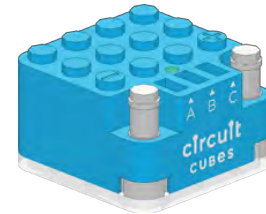
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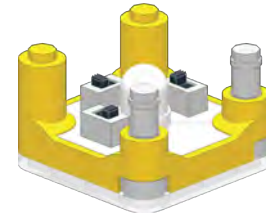
10



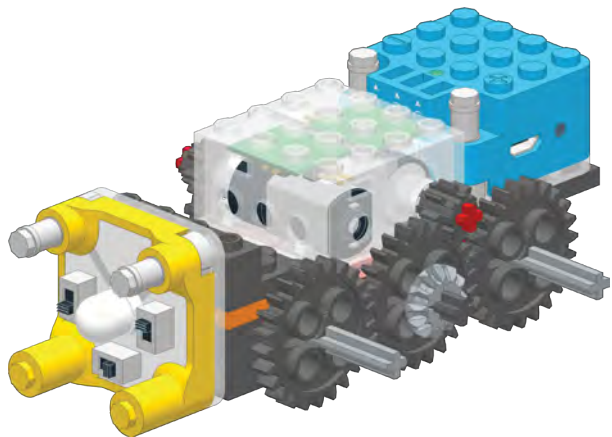
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11



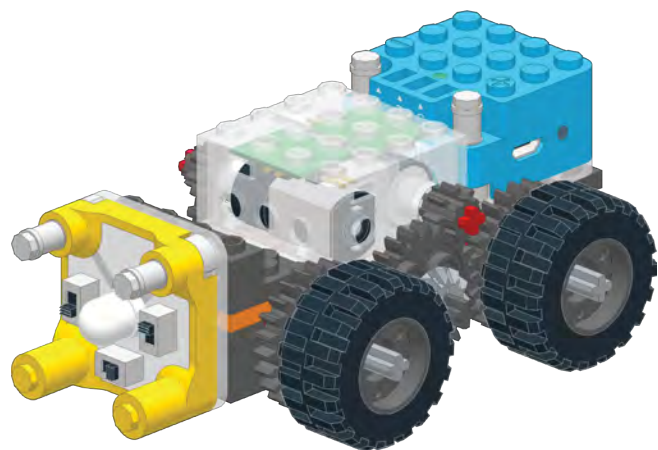
3



1



12



2

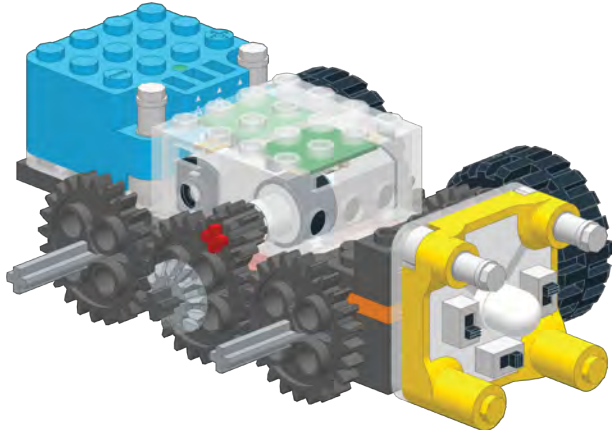


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13



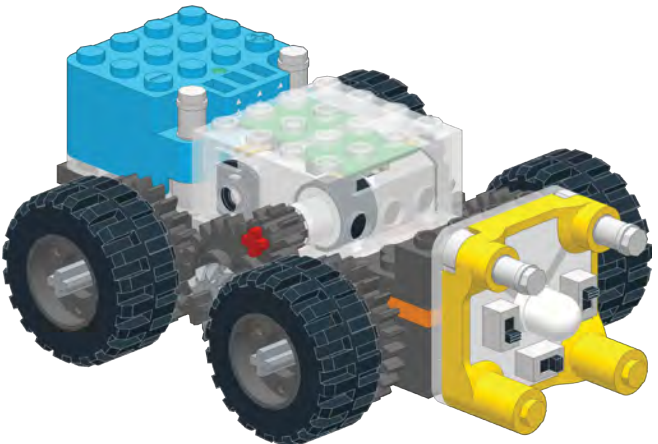
3



1



14



2

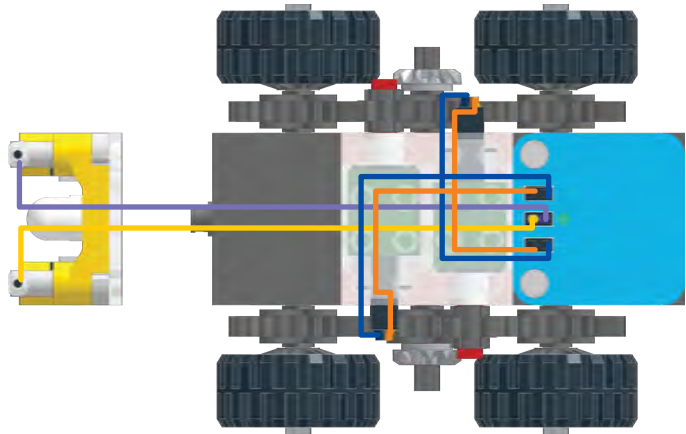


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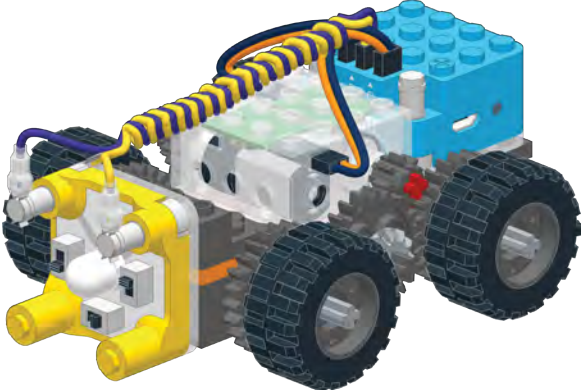
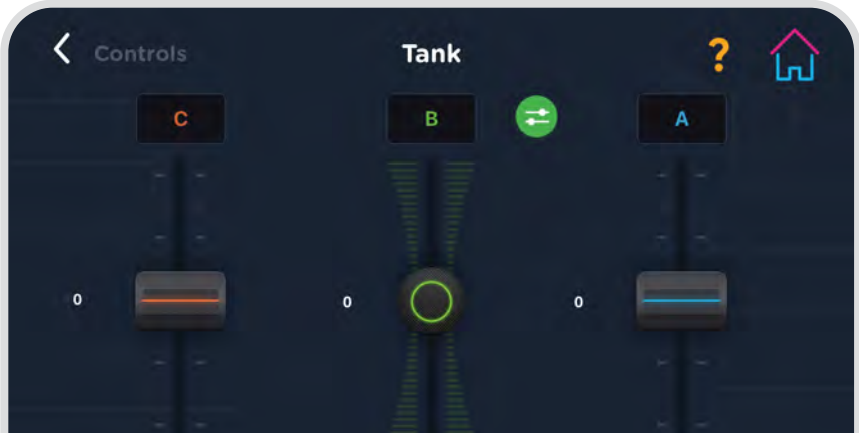


15



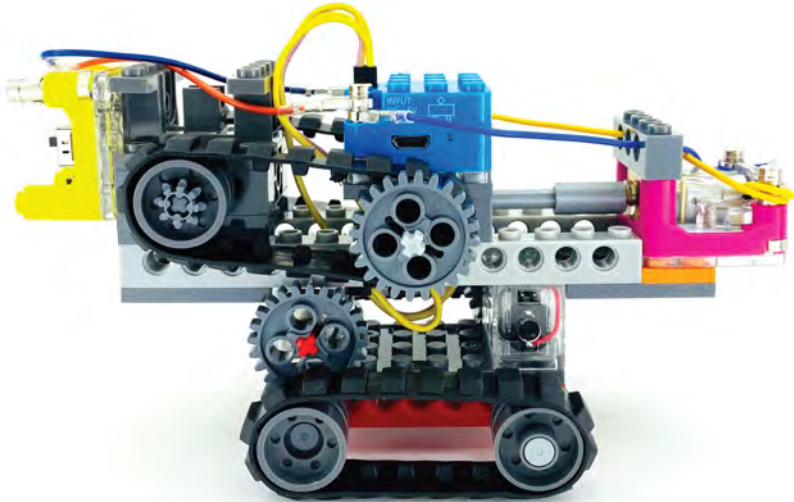
- 1
- 2

# XV-B5 CONTROLS



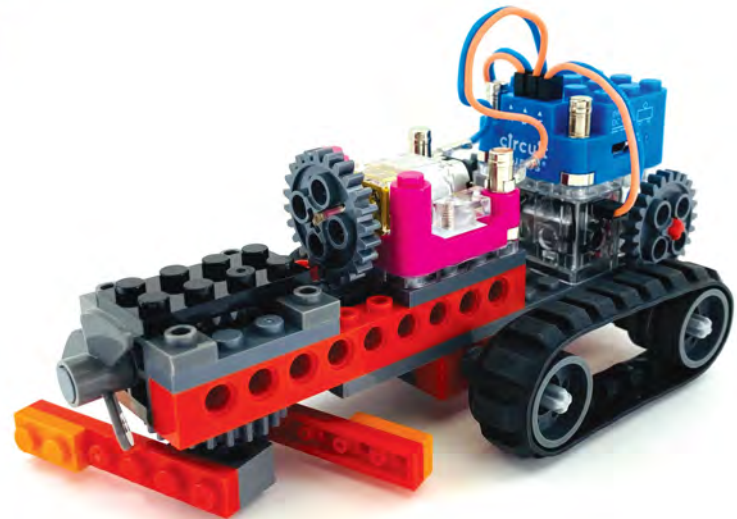
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XV-B6

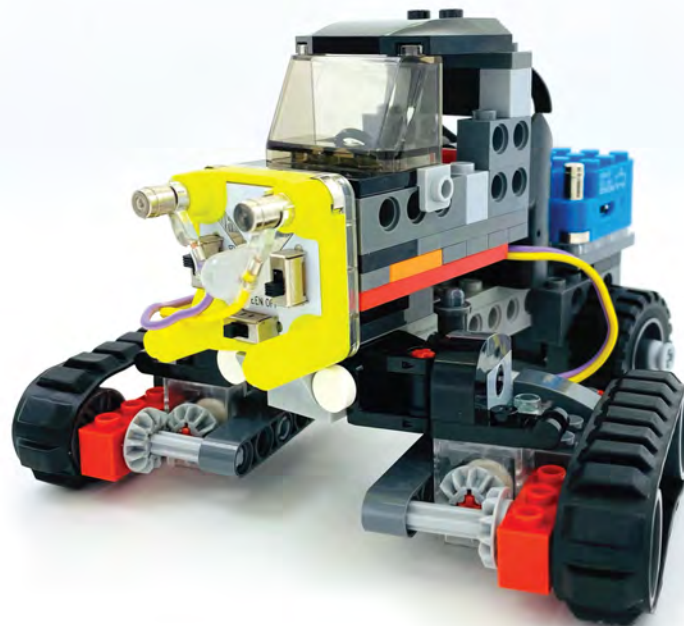
XV-B7



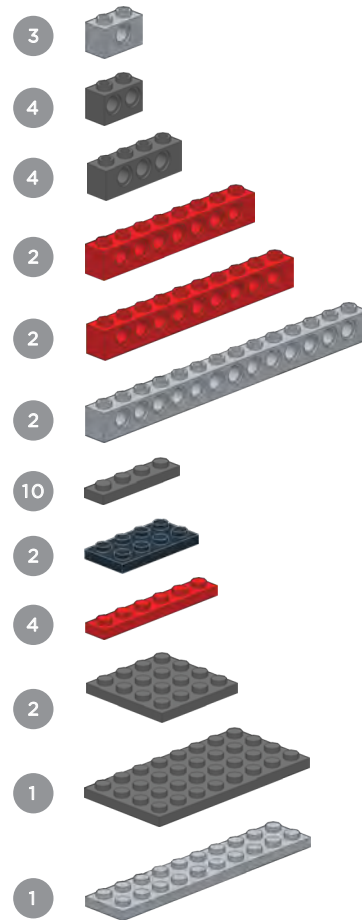
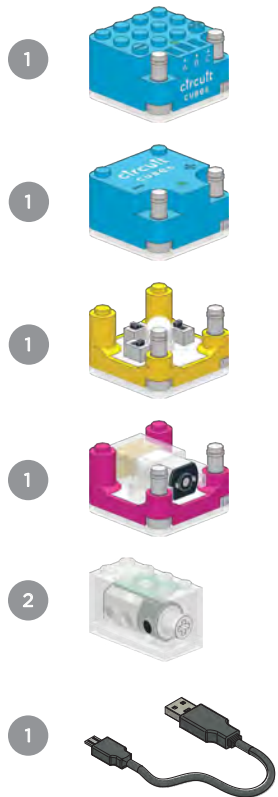
XV-B9



XV-B8



# PARTS





# LEGAL

Tenka Inc. / 291 School Street, Suite 3 / Willits, CA 95490.  
Designed by Tenka Inc. in California, USA. Assembled in China.  
Please retain this information for future reference. Images for illustration purposes only. Actual product may differ.

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**SAFETY** Handle Circuit Cubes with care. They contain sensitive electronic components, including batteries, and can be damaged or cause injury if dropped, burned, punctured, crushed, disassembled, or if exposed to excessive heat or liquids. Do not use damaged Circuit Cubes.

**BATTERIES** The battery is non-replaceable. Do not attempt to replace the batteries yourself. You may damage the batteries, which can overheat and cause injury. Do not expose battery to water or allow the battery to get wet. Circuit Cubes are only intended to work with one Battery Cube in a circuit — parts may fail if you add multiple Battery Cubes in a circuit.

**DISPOSAL** The lithium-ion polymer in your Bluetooth Cube should be recycled by Tenka Inc. or an authorized service provider. For more information about Tenka Inc. lithium-ion batteries, go to: [circuitcubes.com/pages/cubecare](http://circuitcubes.com/pages/cubecare).

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**COMPLIANCE** Regulatory Compliance Information, FCC Compliance Statement: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide

reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Reorient or relocate the receiving antenna. 2) Increase the separation between the equipment and receiver. 3) Connect the equipment to an outlet on a different circuit from the receiver. 4) Consult the dealer or an experienced radio/TV technician for help. Important: Changes or modification to this product not authorized by Tenka Inc. could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product. This product has demonstrated EMC compliance under conditions that include the use of Tenka Inc. peripheral devices.

**WARNING** This product contains chemicals known to the State of California to cause cancer and birth defects (or other reproductive harm). **WARNING** Choking hazard — small

parts. Not for children under 3 years. **WARNING** This product contains small magnets. Swallowed magnets can stick together across intestines, causing serious injuries. Seek immediate medical attention if magnets are swallowed or inhaled. **WARNING** This toy is only intended for use by children over the age of 8 years.

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**CONTACT** For help with your Circuit Cubes or other questions, please email: [support@circuitcubes.com](mailto:support@circuitcubes.com).

FCC ID: AUI-TBT01A





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