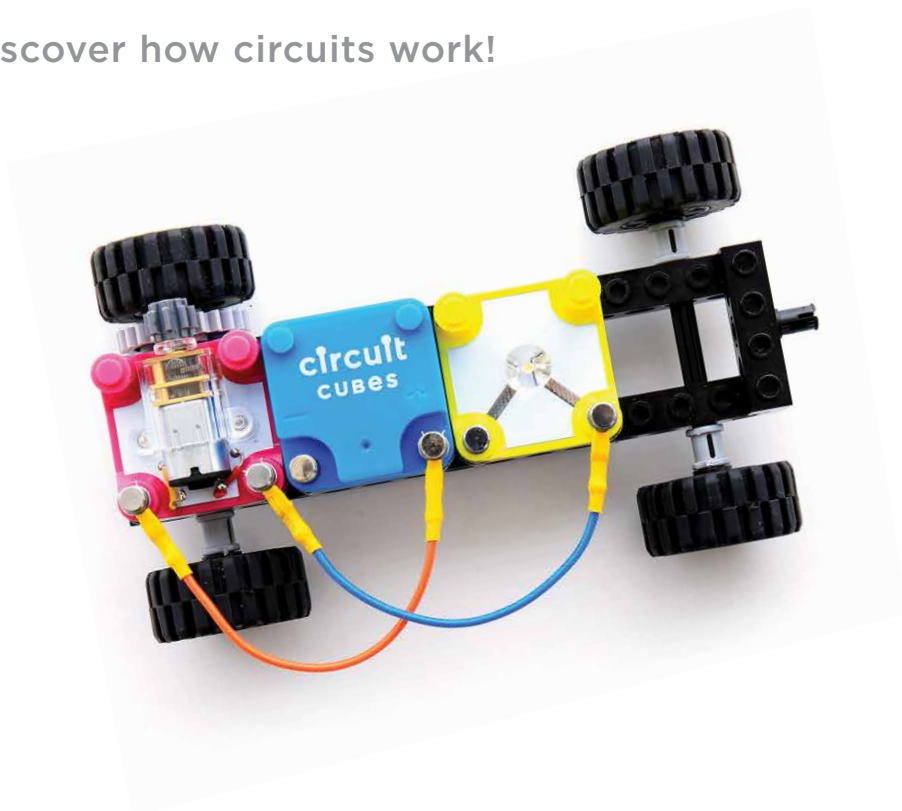


STEM STARTER

Discover how circuits work!



circuit
CUBES

BATTERY

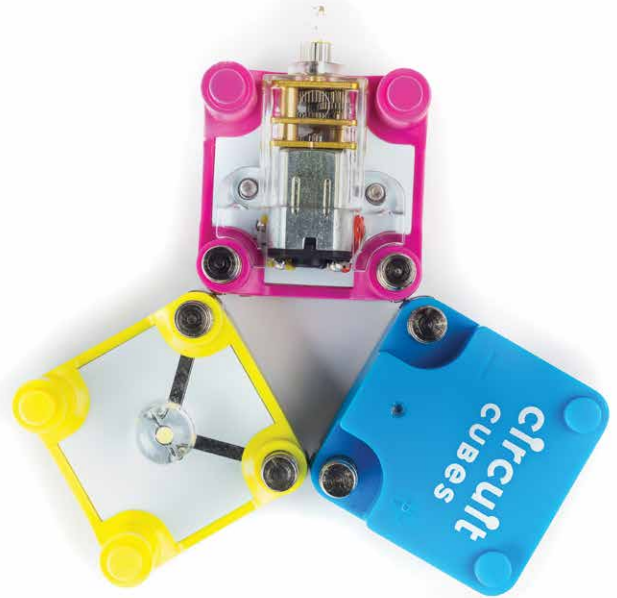
The standard Battery Cube is the power for your circuit. It has a positive and negative terminal. Turn on the switch to power your creation — it's rechargeable too! If the LED on top of your Cube is flashing red, you have caused a short circuit and power output is disabled to allow you to troubleshoot.

MOTOR

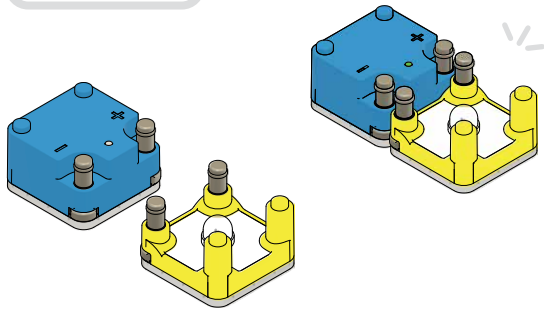
A perfect fit for your gears and wheels, this mighty little motor actually rotates at more than 1,000 RPM (rotations per minute), but the tiny gears attached to the motor shaft reduce the rotations to about 100 RPM. This ensures maximum torque to turn the wheels or gears of your projects.

LED

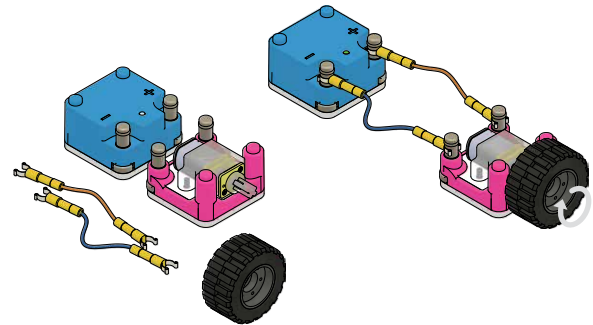
Snap this ultra-bright, oversized LED onto your bricks and get thousands of hours of light to illuminate your builds, from easy flashlight set-ups to more challenging projects.



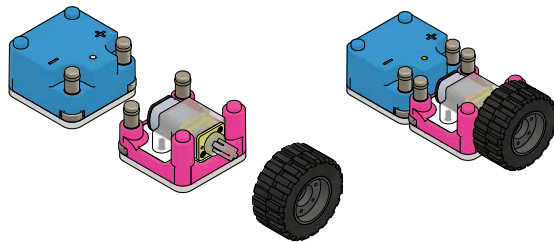
MAGNETS



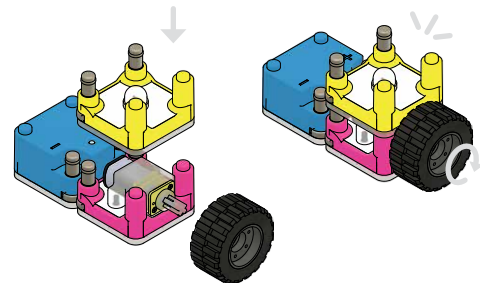
WIRES



CONNECT YOUR CUBES



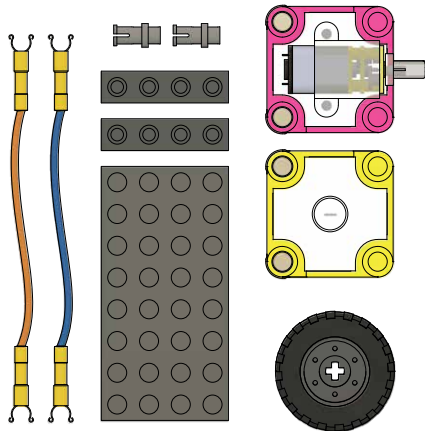
POSTS & OUTPOSTS



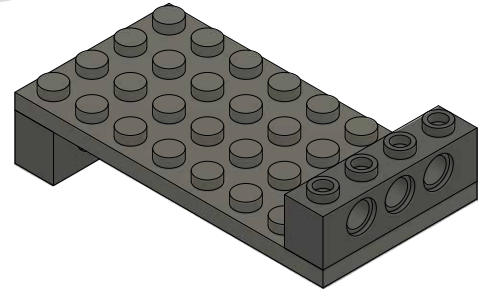
STACKING

HAND-CRANK FLASHLIGHT

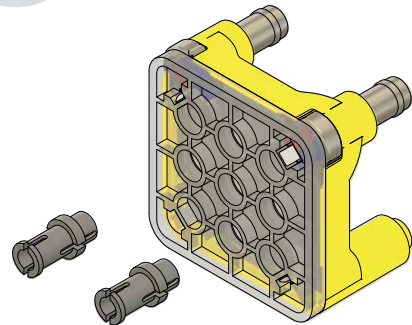
Mod your flashlight by replacing the energy source. Swap the Battery for the wheel, allowing it and the Motor to produce the electricity that turns the LED light on. Remember, LEDs have polarity. That means it will only turn on if you spin the wheel in the correct direction.



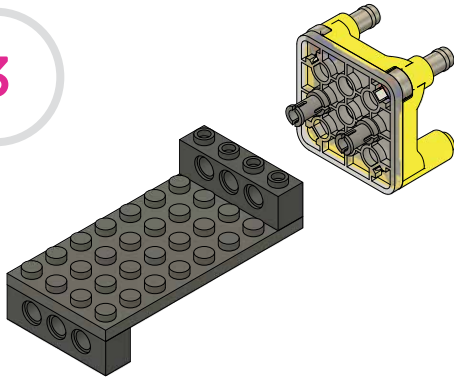
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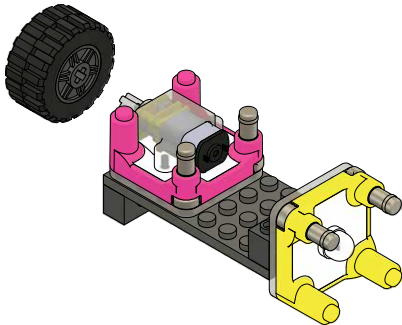
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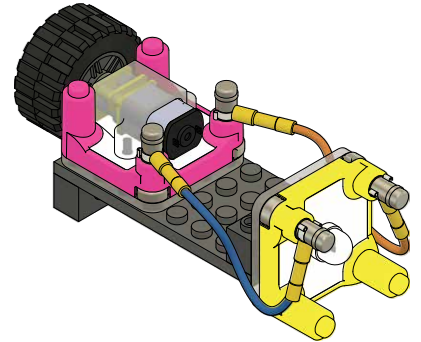
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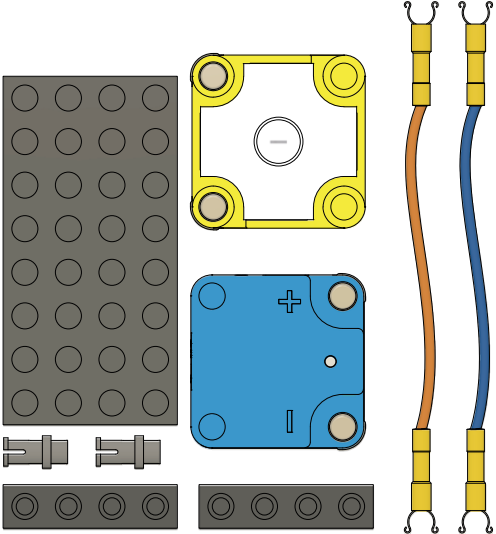


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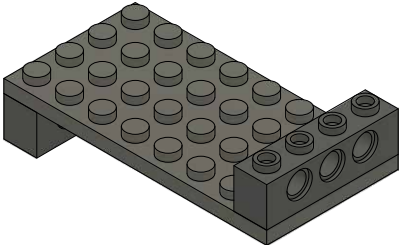


FLASHLIGHT

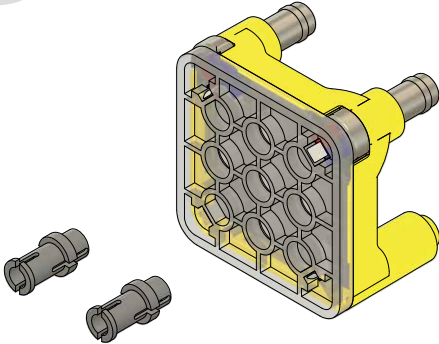
Construct a simple flashlight with a super-bright LED that you can use to explore in the dark. Once you've built this, you're ready to light up all kinds of cool things!



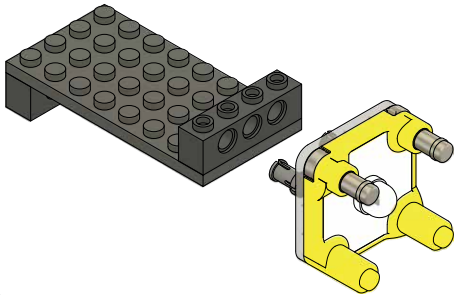
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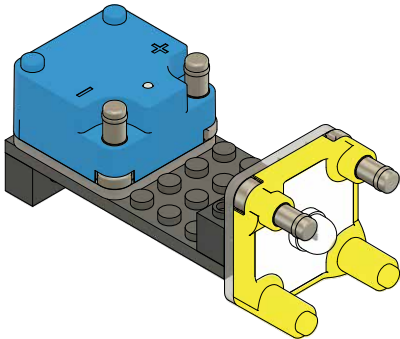
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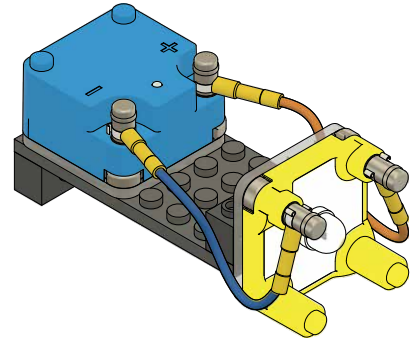
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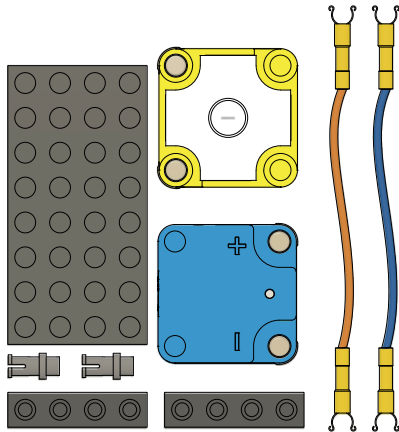


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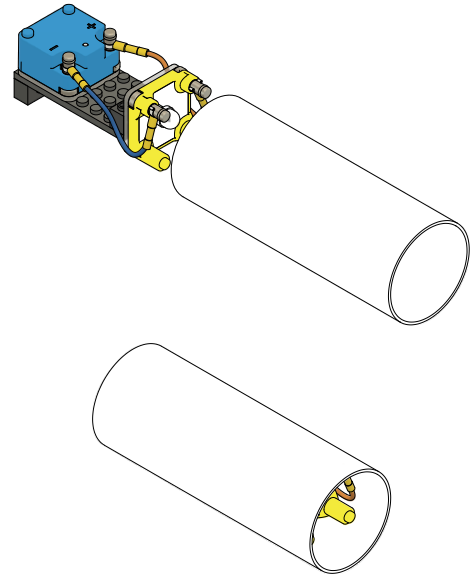


GOBO FLASHLIGHT

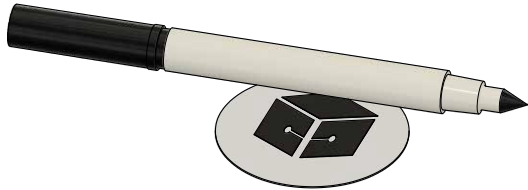
Make a gobo by adding a custom stencil to your flashlight. Take a piece of clear plastic and draw whatever you want on it. Use the telescope feature to focus the image so it looks clear and crisp. If you spin the cap and rotate the image, you can also build a kaleidoscope!



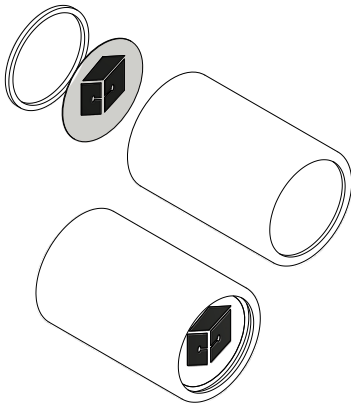
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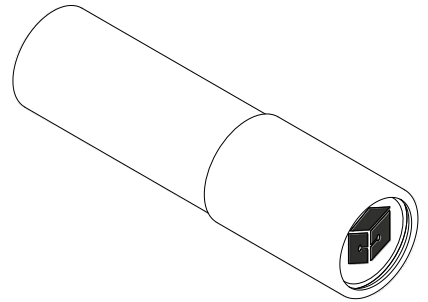
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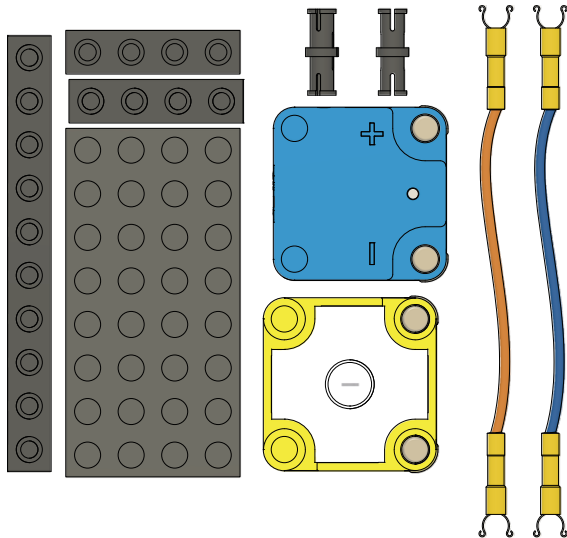


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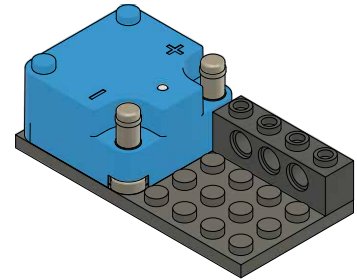


DESK LAMP

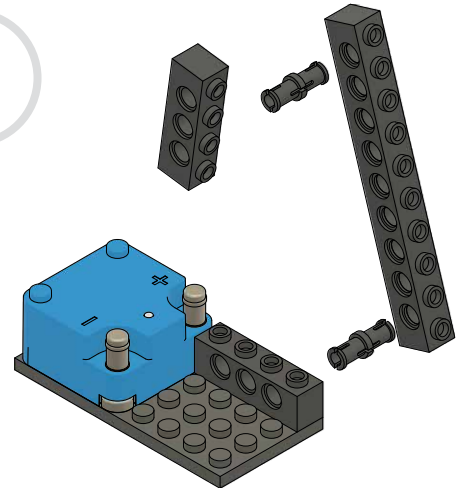
Make homework more fun by building your own adjustable lamp! With two different ways to move, your lamp can be placed the way you like it. Plug it in with your USB cable and it will work as long as you do.



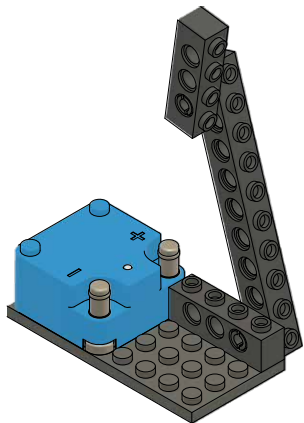
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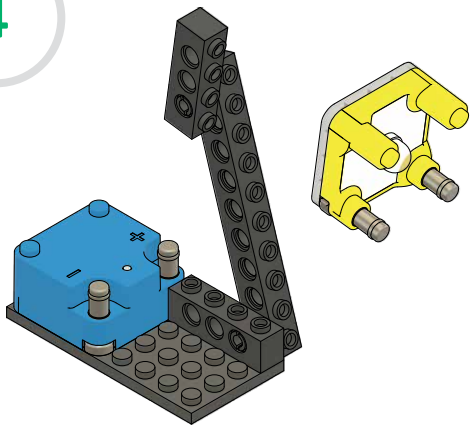
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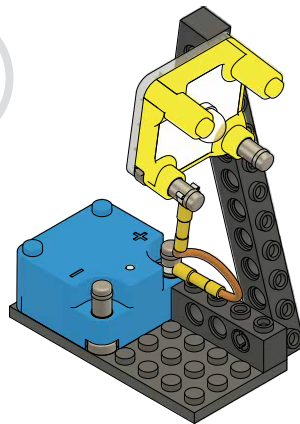
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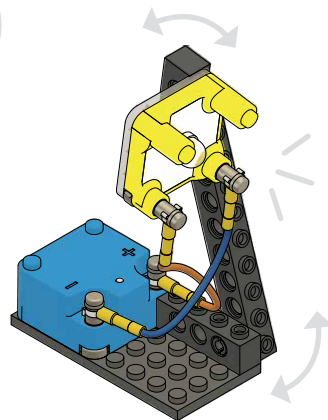
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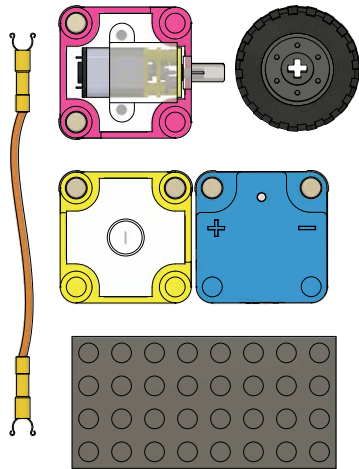


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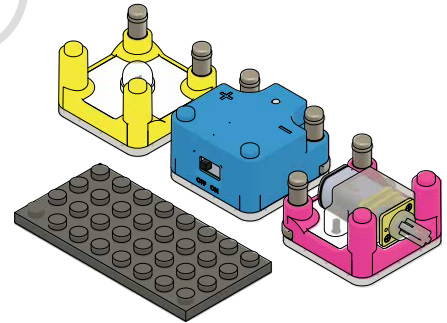


LIGHTHOUSE

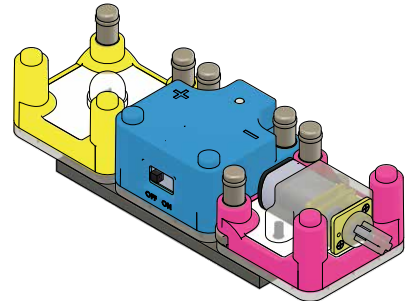
Lighthouses help ships avoid danger near the shore at night. Yours uses all three Cubes and one wire to make it rotate. The Motor can spin really fast, but you'll wire it up so that it slows down to the perfect speed. Then add a wheel to keep it all standing up straight.



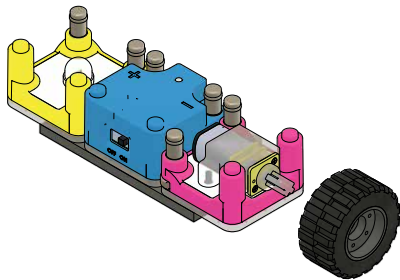
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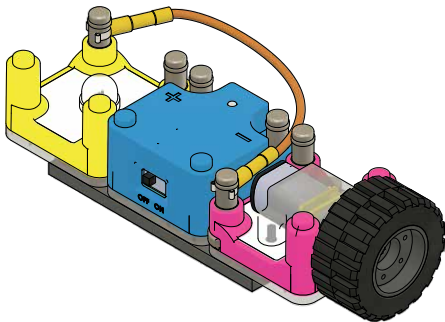
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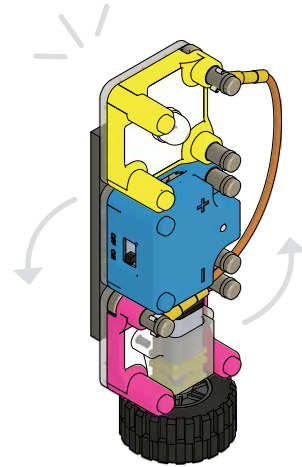
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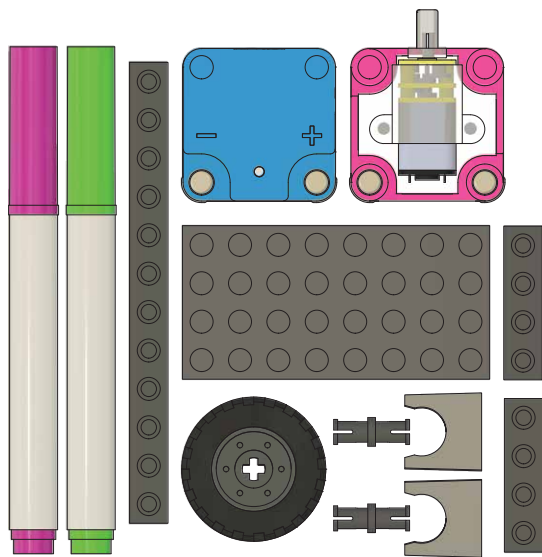


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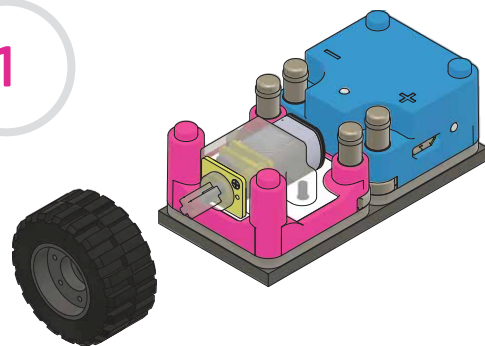


2-MARKER SCRIBBLEBOT

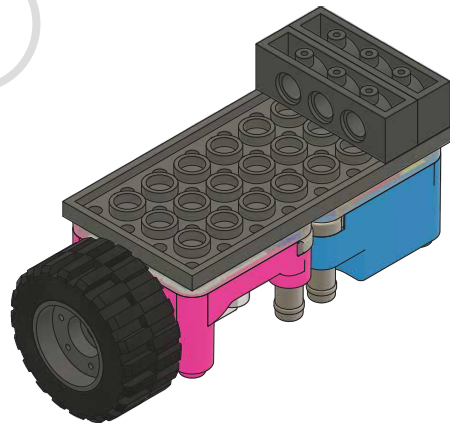
Try placing the markers in different places on the axle. Do your drawings change?



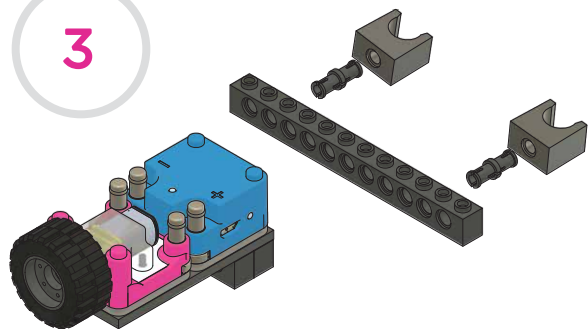
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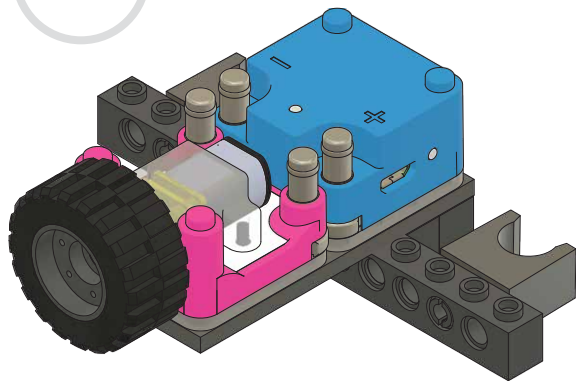
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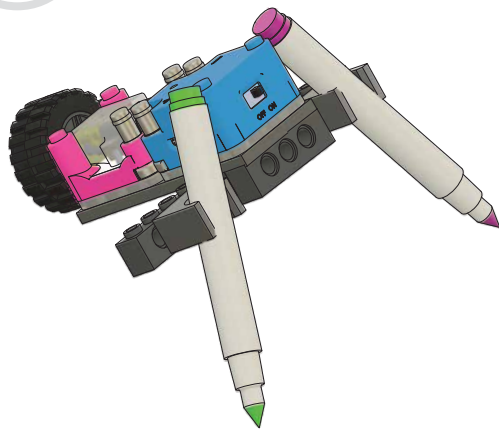
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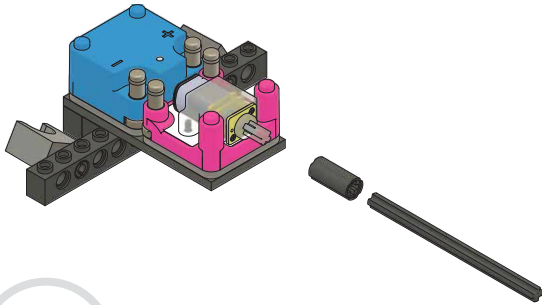
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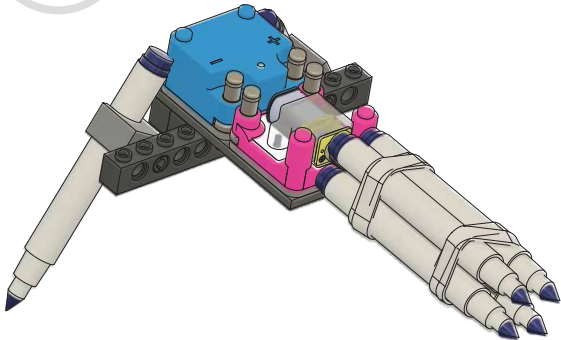
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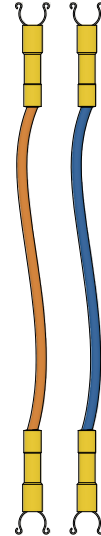
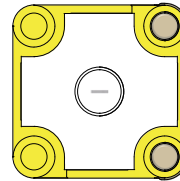


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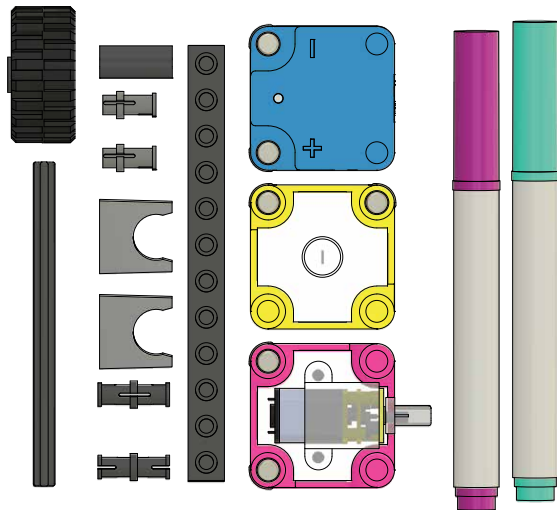
CHALLENGE

Add the LED Cube to light up your artwork.

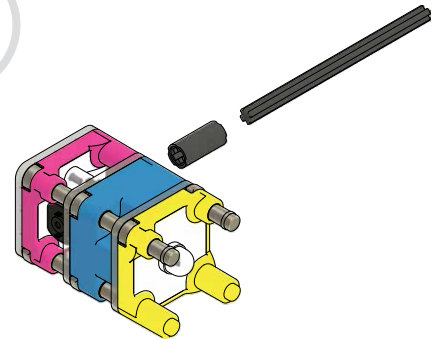


DARK ARTBOT

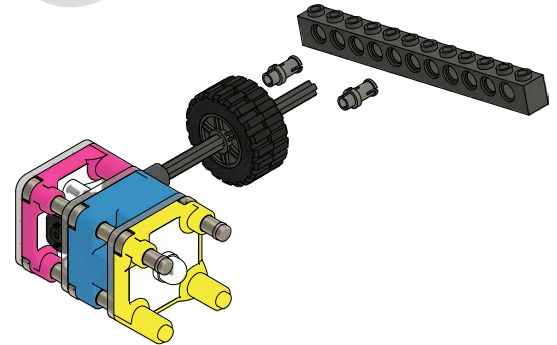
This bot flips and rolls and shines light on your art as it draws in the dark! The two-marker combo creates cool spiral designs, while the rubber bands help keep the LED in place.



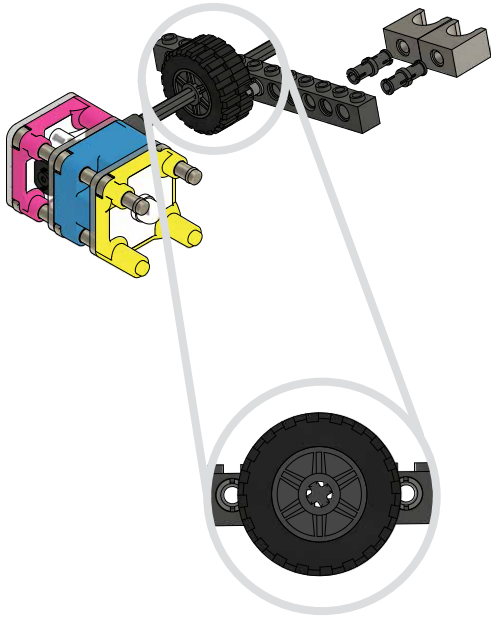
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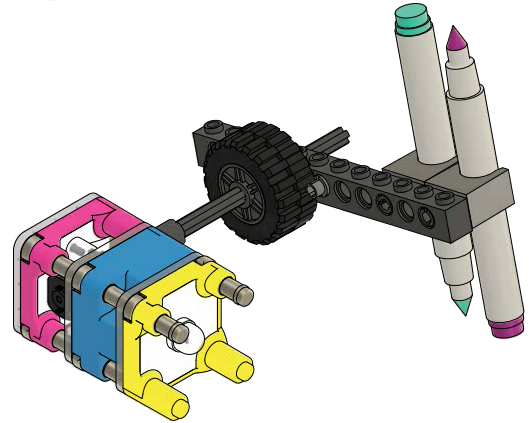
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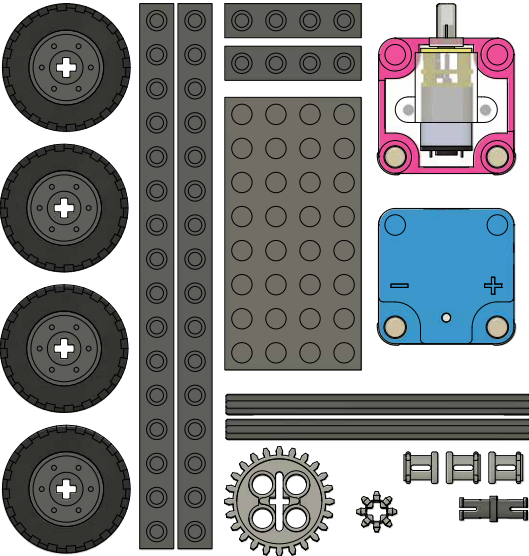


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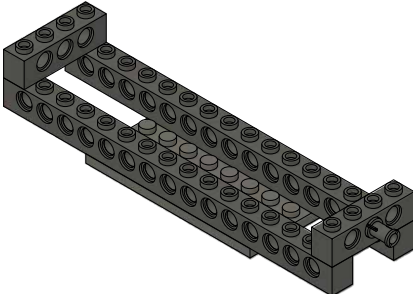


CHASSIS

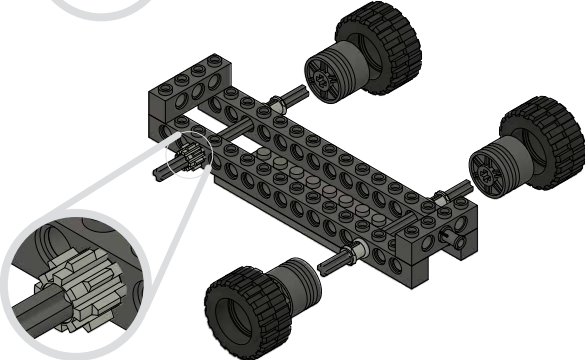
Once you've built this car chassis, you'll be set to make all kinds of things that move. Use this build to create other kinds of vehicles, high-speed monsters or whatever you can imagine.



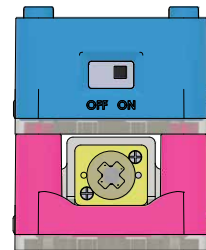
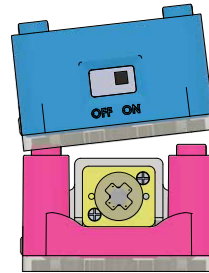
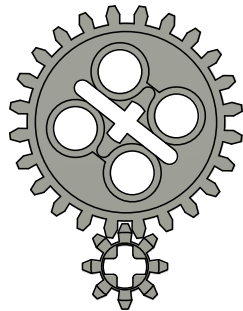
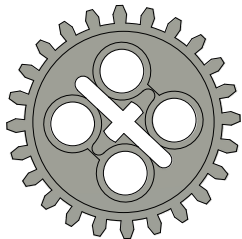
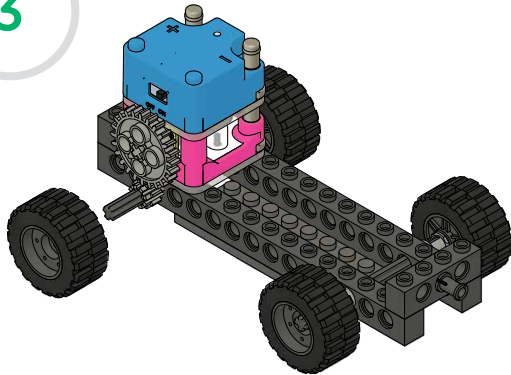
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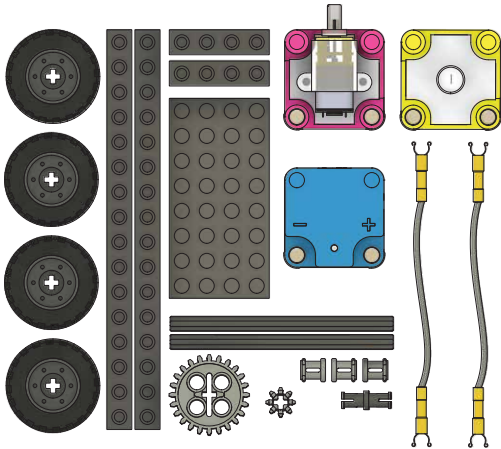


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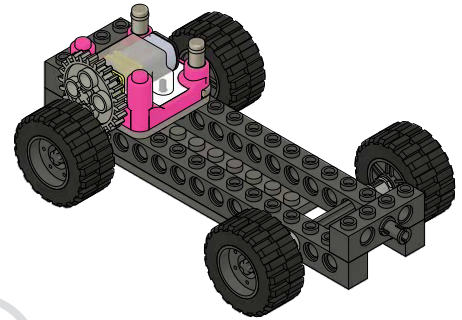


HACK YOUR RIDE

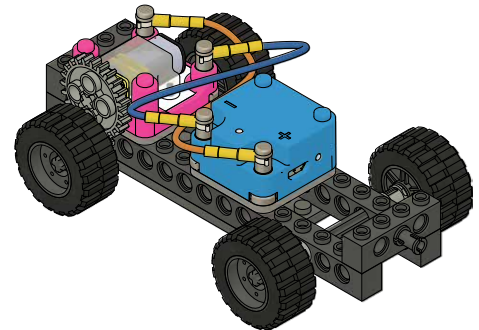
Once you've assembled the chassis and topped it with a car body, make it as crazy as your imagination will allow. Move the Battery and wires for more versatility. Stack the LED on top, but be sure to rotate it 90 degrees. To change the car's direction, swap Motor wires to reverse the polarity — the Motor will spin in the opposite direction. The LED should still turn on since it is stacked on top of the Battery.



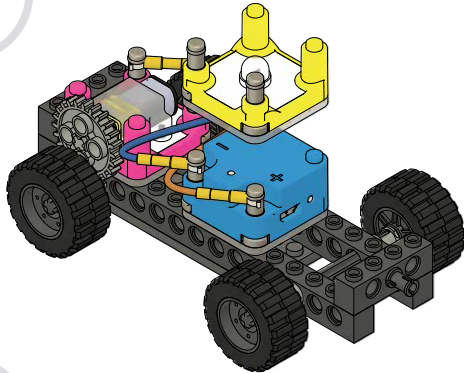
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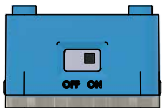
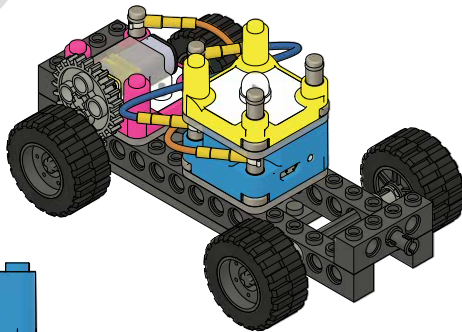
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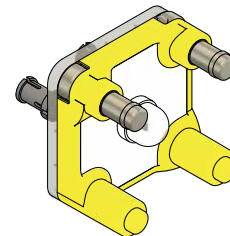


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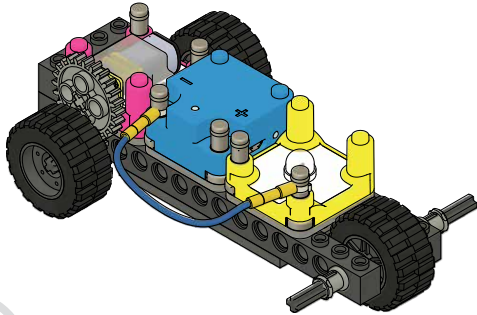


CHALLENGE

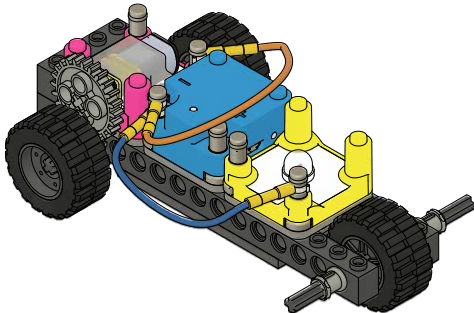
Mount the LED Cube on the front and connect the longer wires to the Battery Cube to make a headlight for the vehicle.



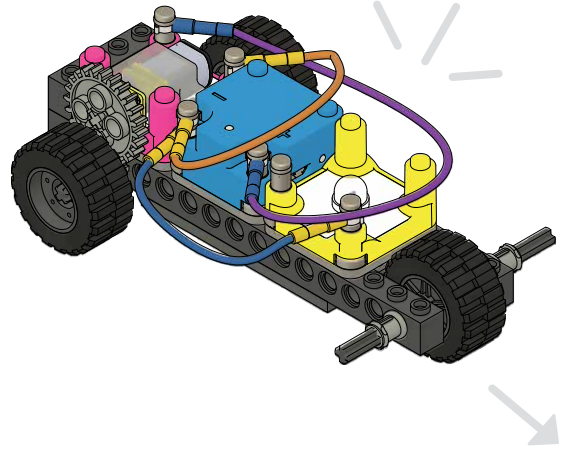
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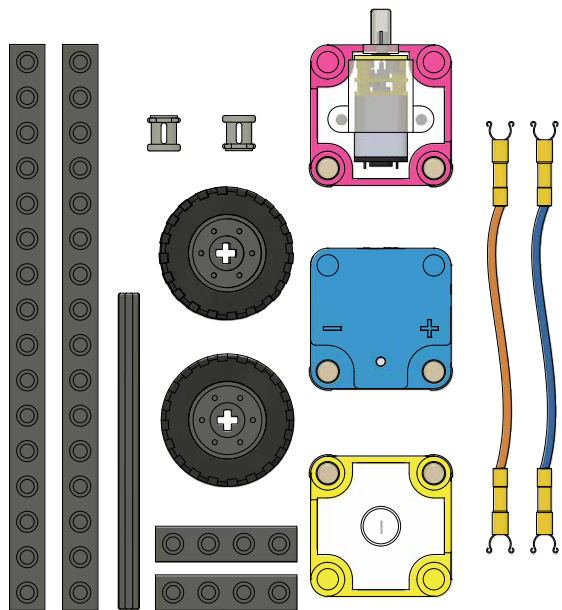


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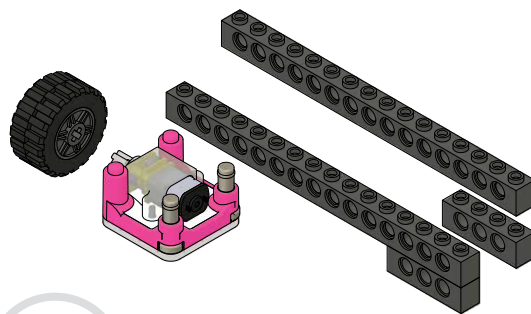


SPINNING CAR

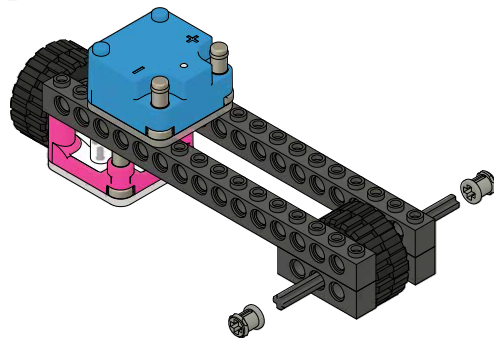
Only you can control the crazy action!



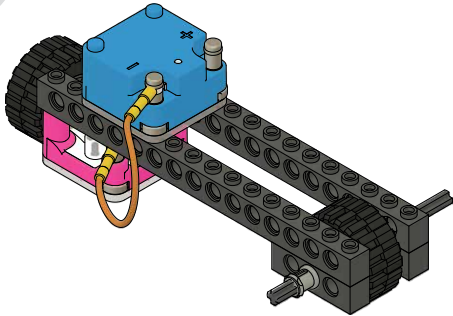
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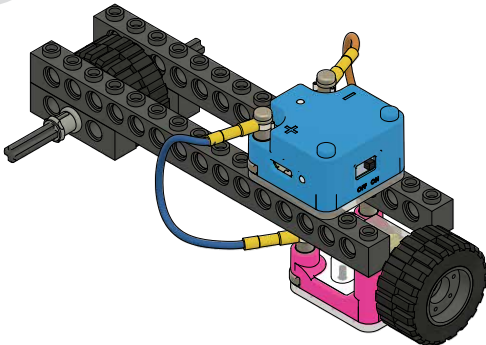
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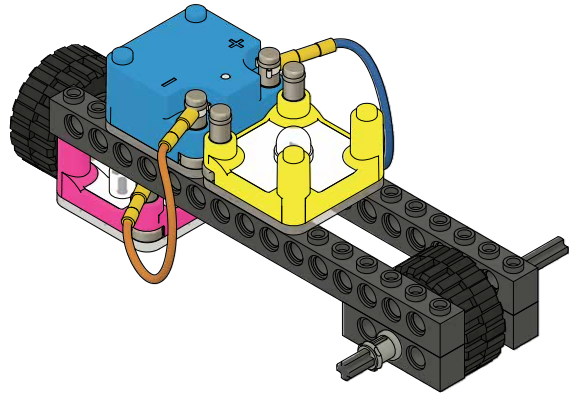
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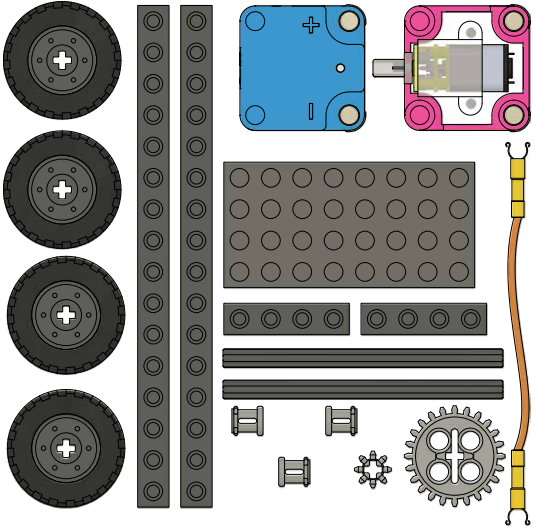


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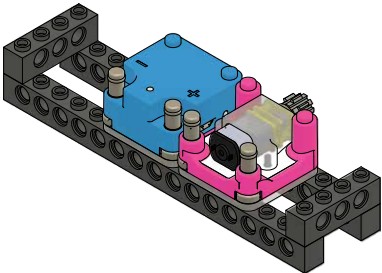


PEANUT BUTTER MIXER

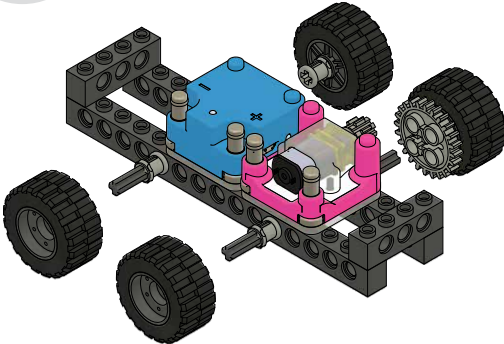
Mix your peanut butter or hack this build to make a rock tumbler.



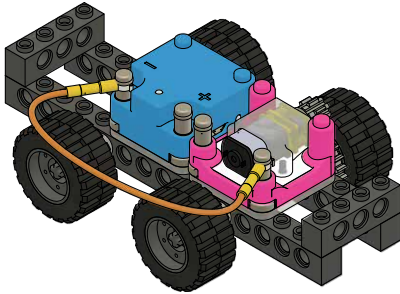
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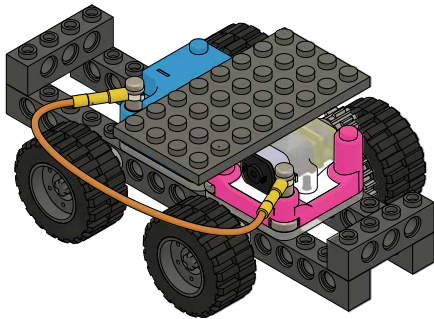
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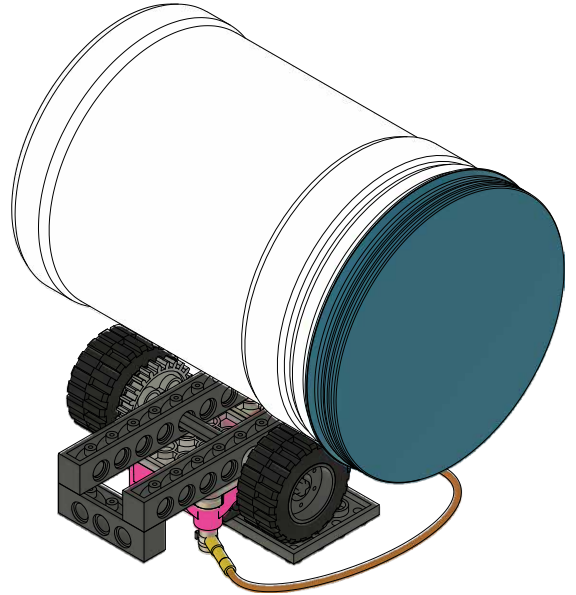
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4



5



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.

PATENTS Circuit Cubes is a registered trademark of Tenka Inc. ©2023 Tenka Inc. All rights reserved. Patent approved. For details visit: circuitcubes.com/patent

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.

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.

CONTACT For help with your Circuit Cubes or other questions, please email: support@circuitcubes.com.





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