

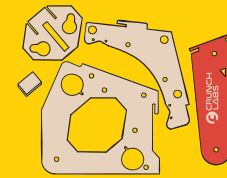
NEW VIDEO UNLOCKED

BUILD ALONG & LEARN WITH MARK ROBER

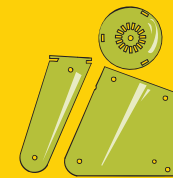


CRUNCHLABS.COM/DISCO

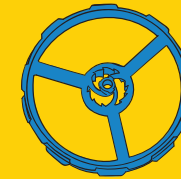
PARTS



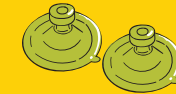
wood pieces



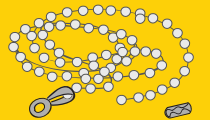
acrylic covers



wheel



suction cups



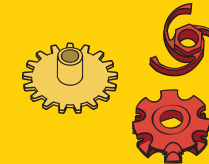
bead chain



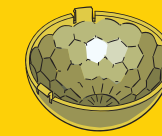
water pouch



paper disc



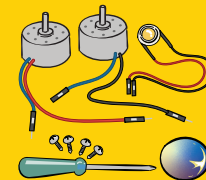
gear kit



dome



band kit



electronics kit



light kit



standoffs



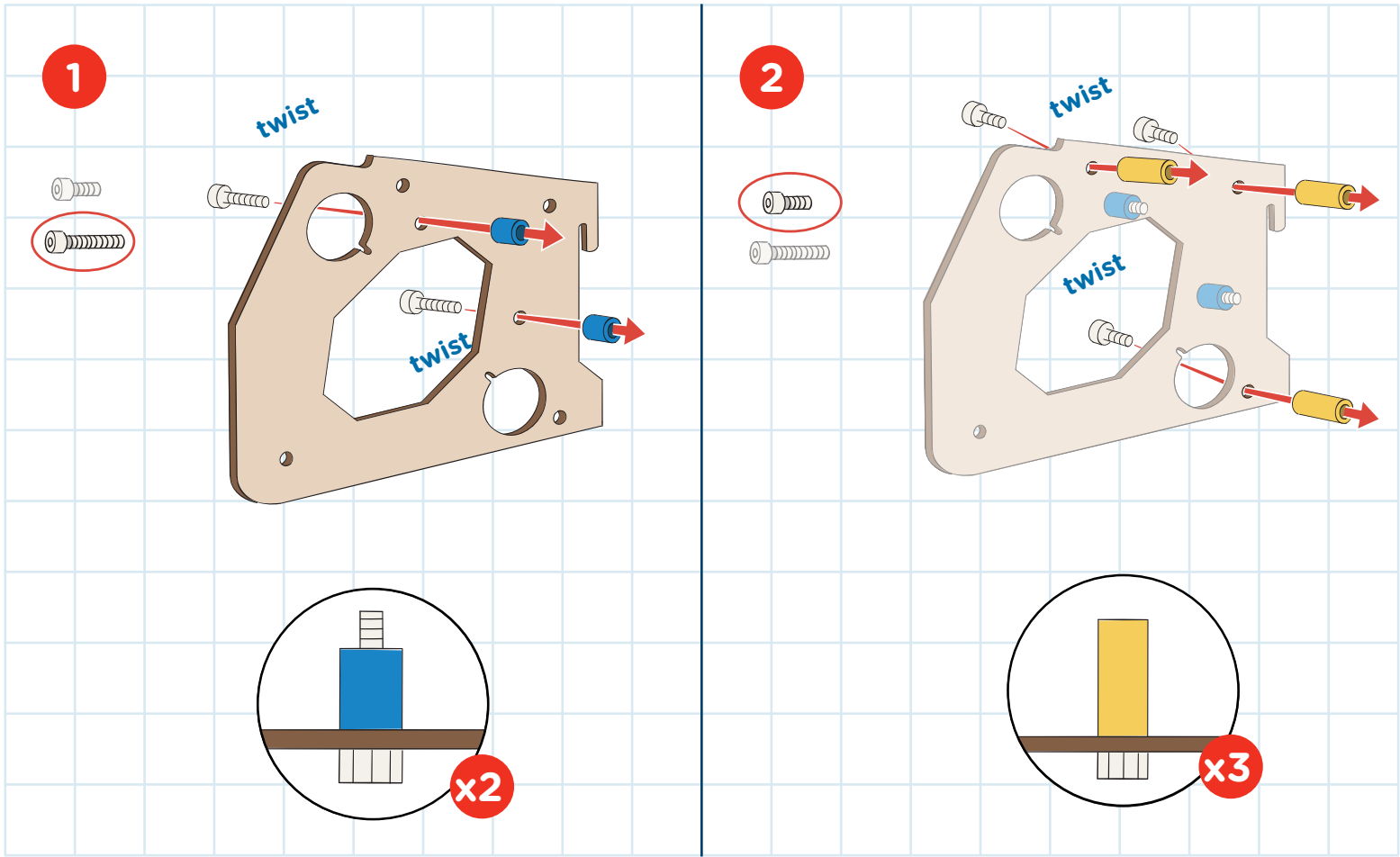
nuts and bolts



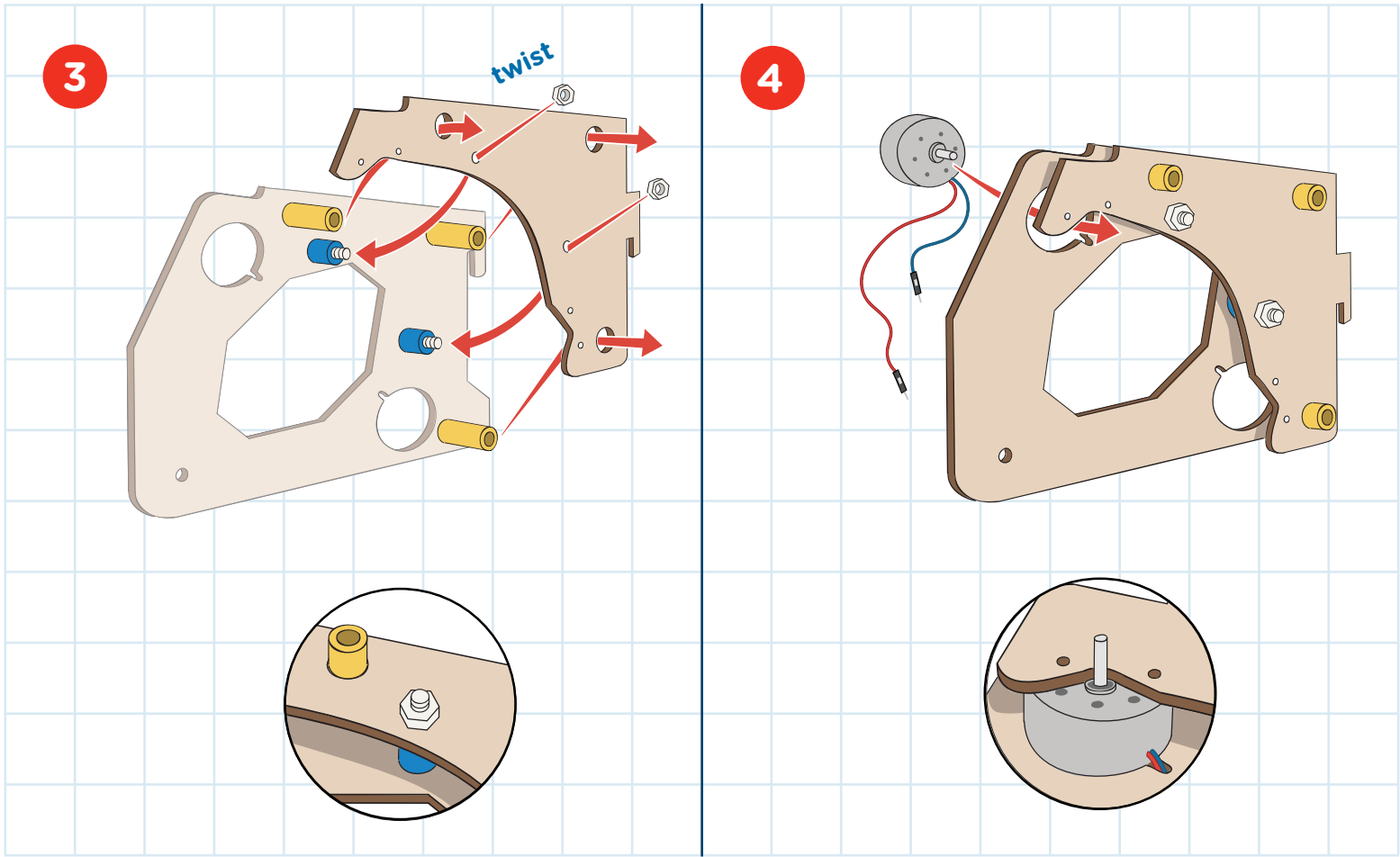
extra fasteners

For missing and replacement parts, visit "My Account" at crunchlabs.com and we'll ship them to you for free.

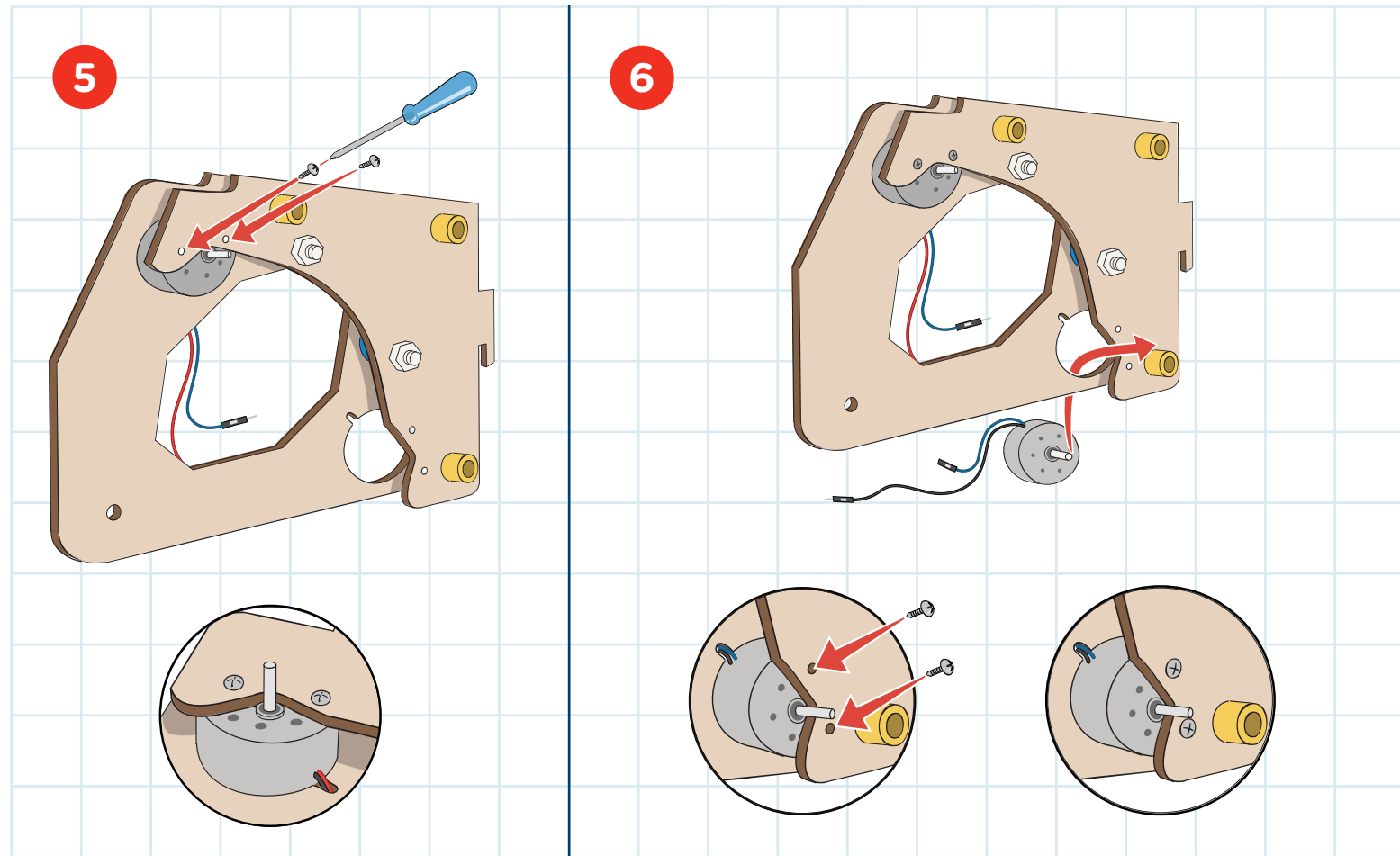
BUILD



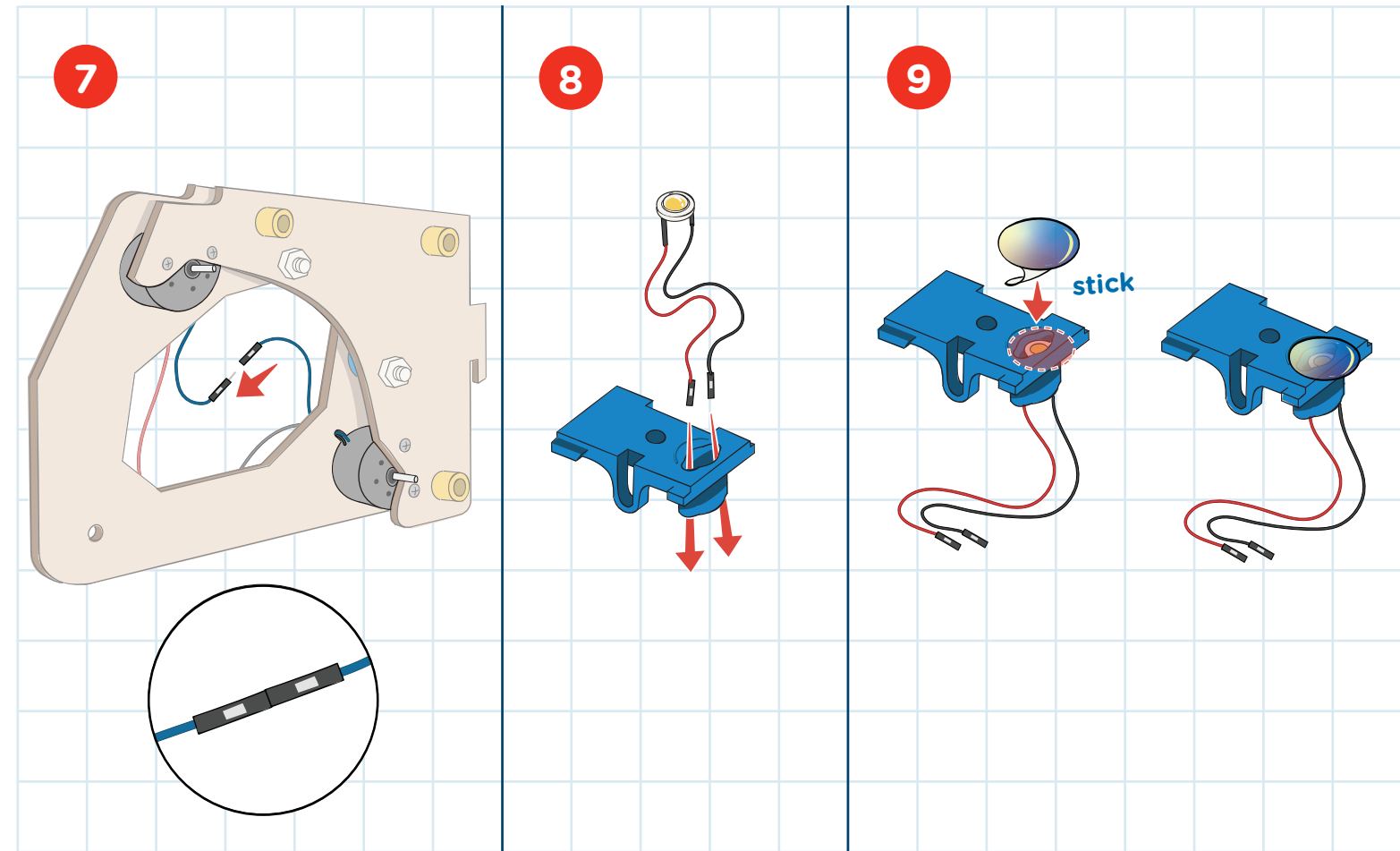
BUILD



BUILD

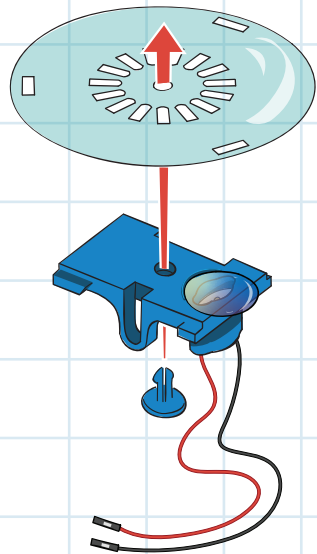


BUILD

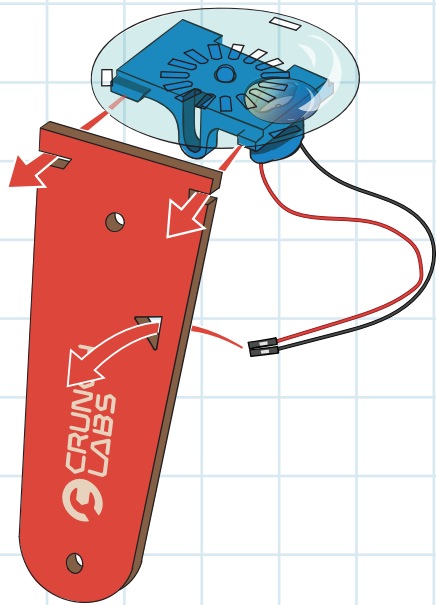


BUILD

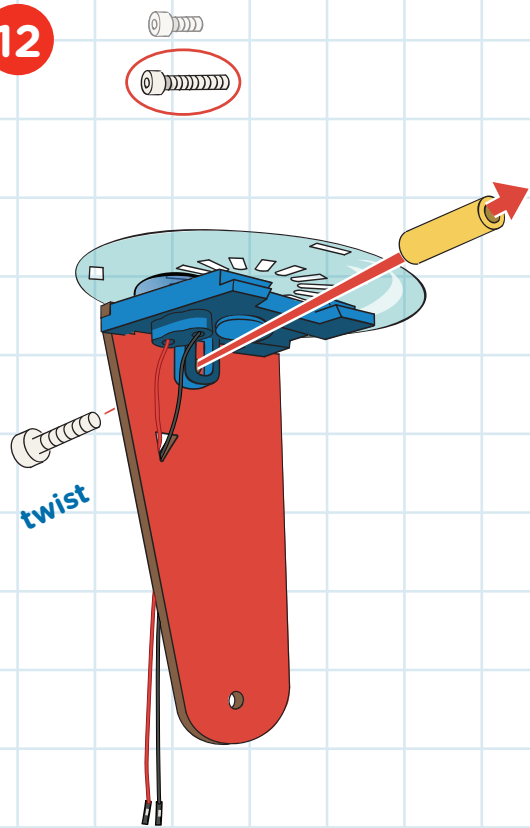
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11

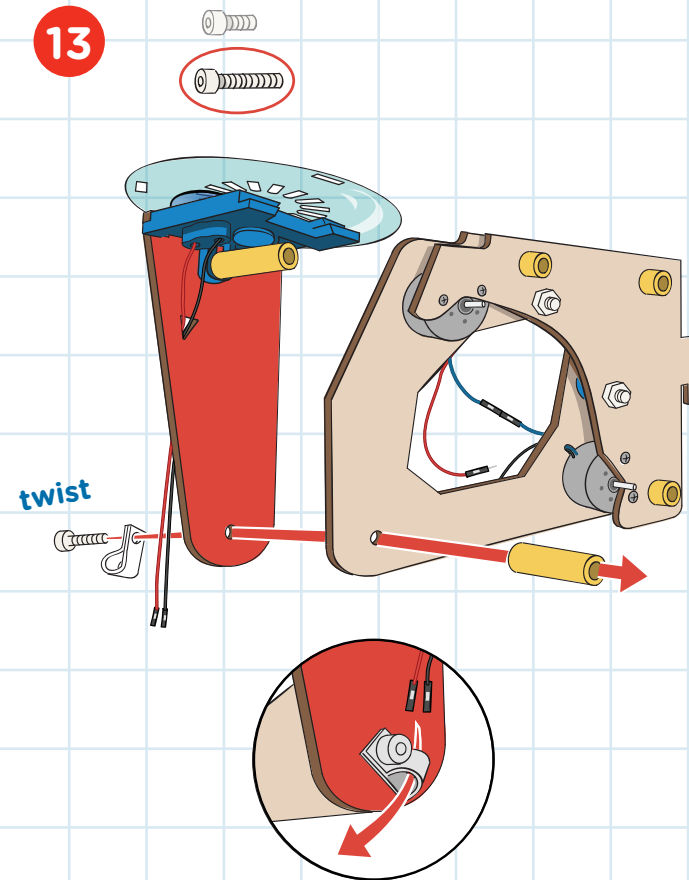


12

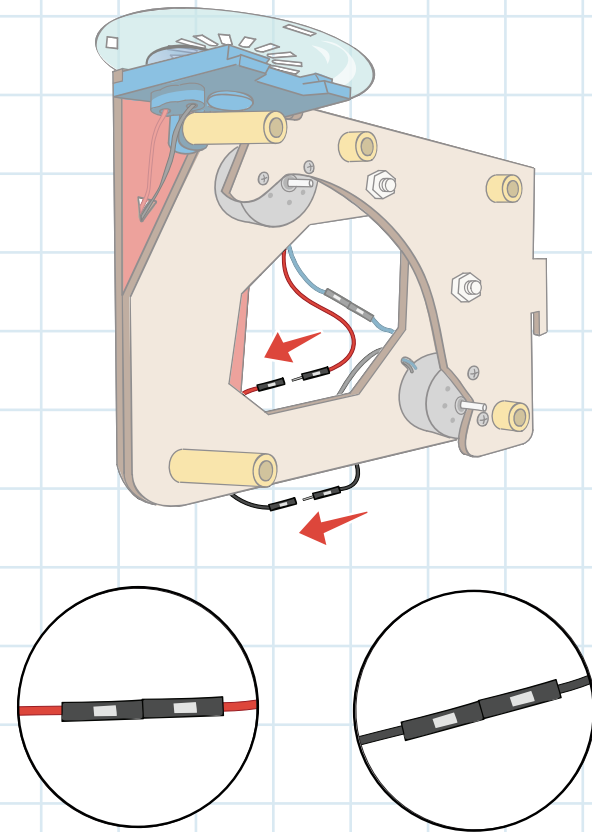


BUILD

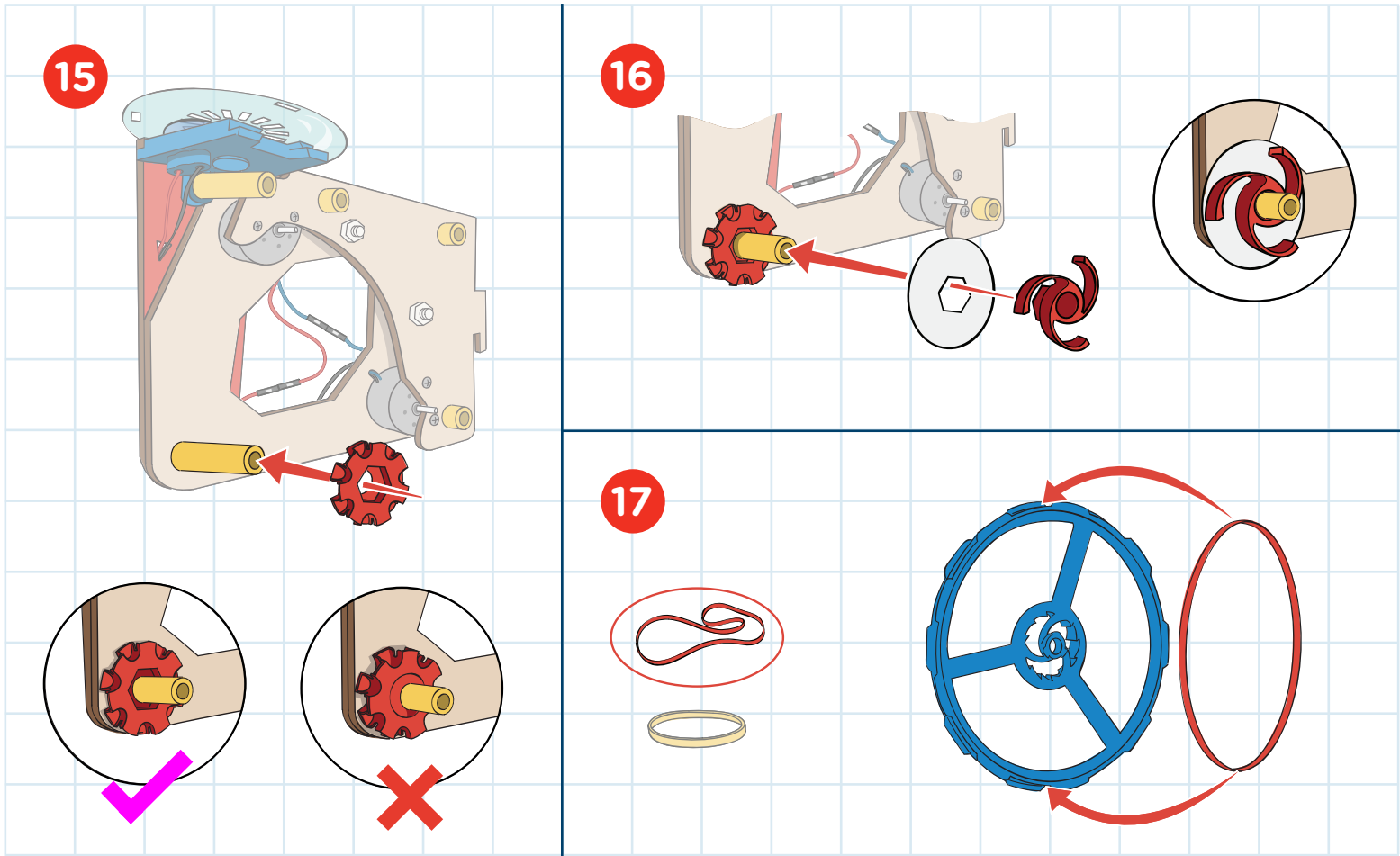
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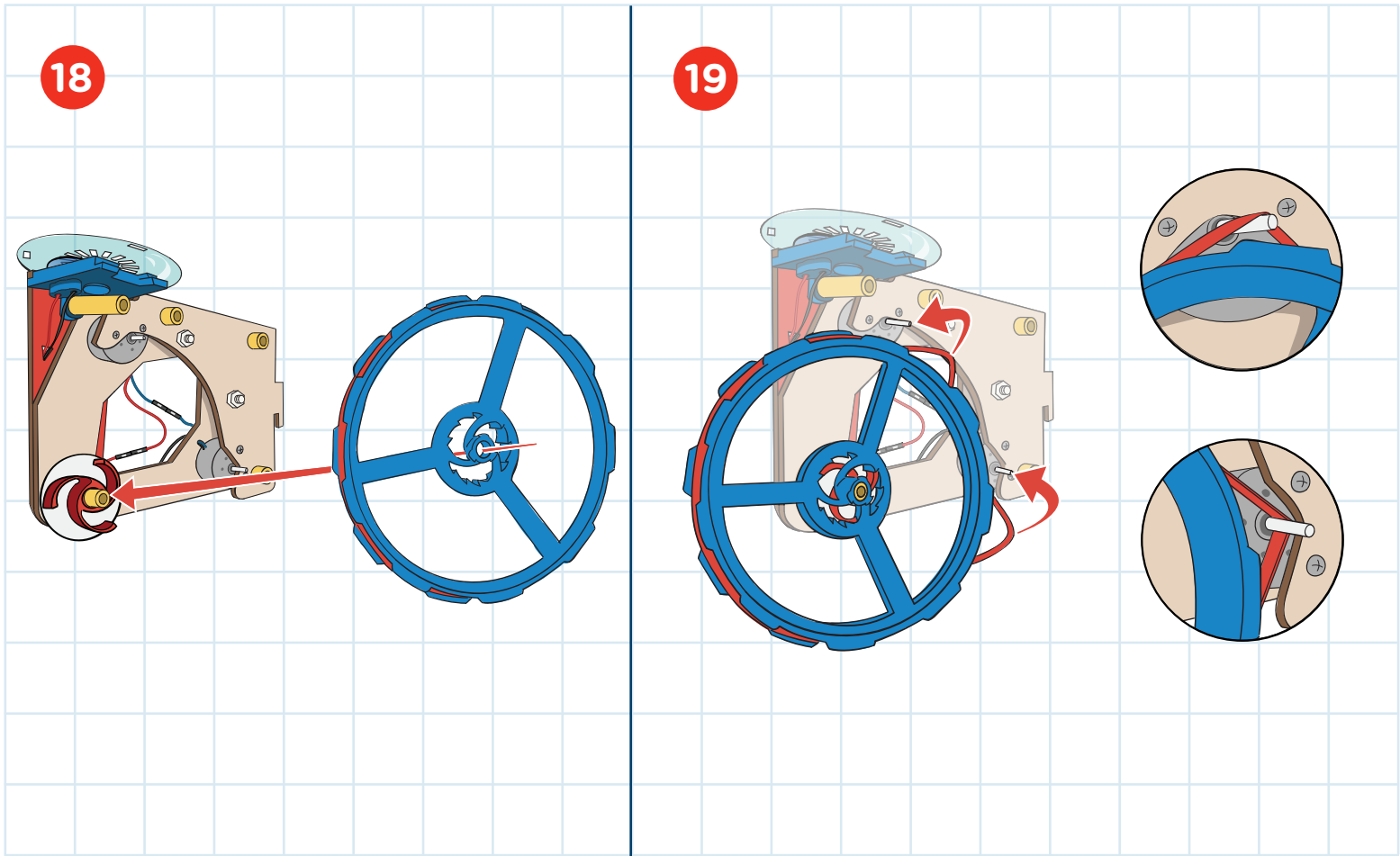
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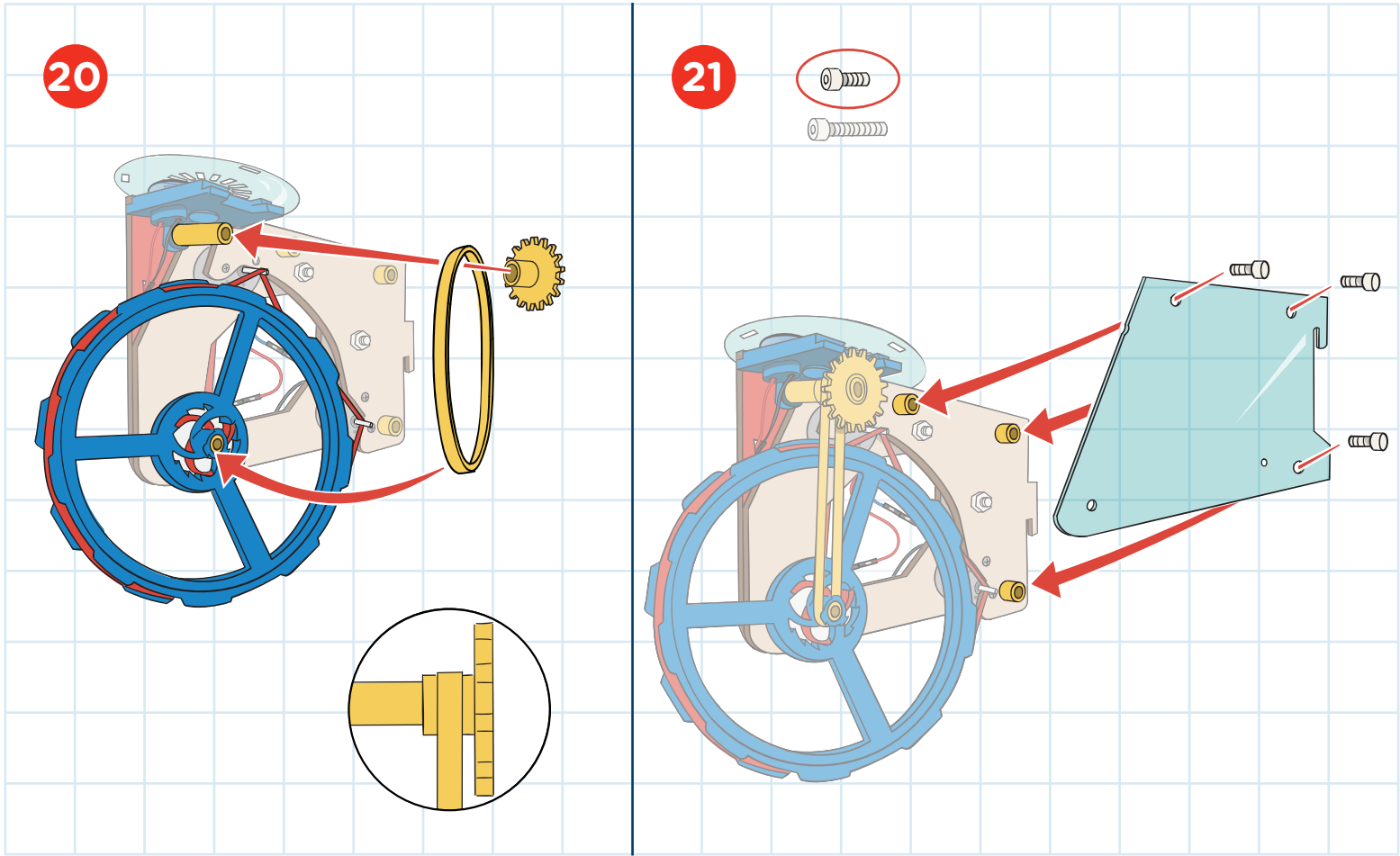
BUILD



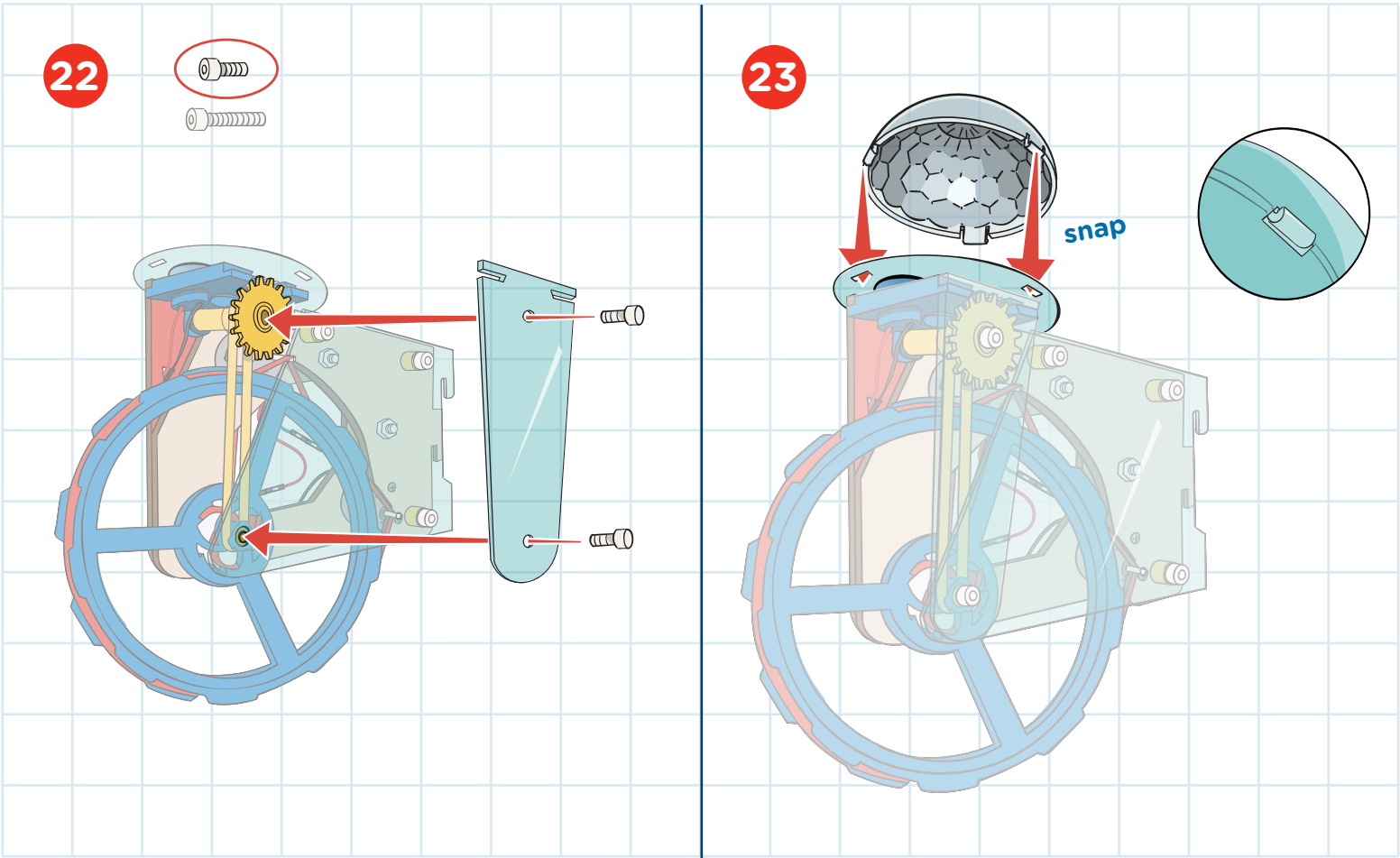
BUILD



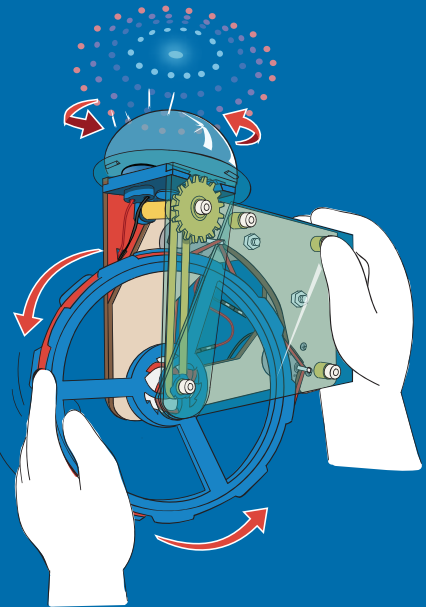
BUILD



BUILD



TEST

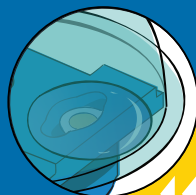
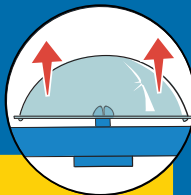


PRO TIP! >>

If your dome is not spinning, lift it off the light holder so it can move freely.

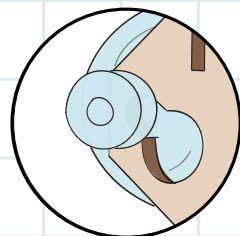
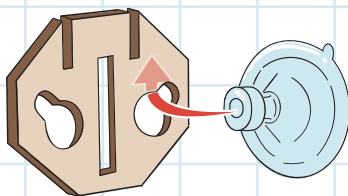
<< PRO TIP!

If your light doesn't light up, make sure all your wire colors are correctly connected.

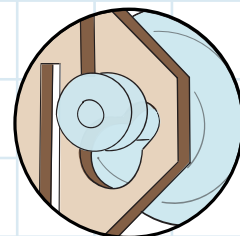
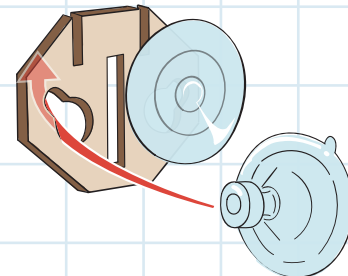


Having trouble? Watch the video at crunchlabs.com/disco

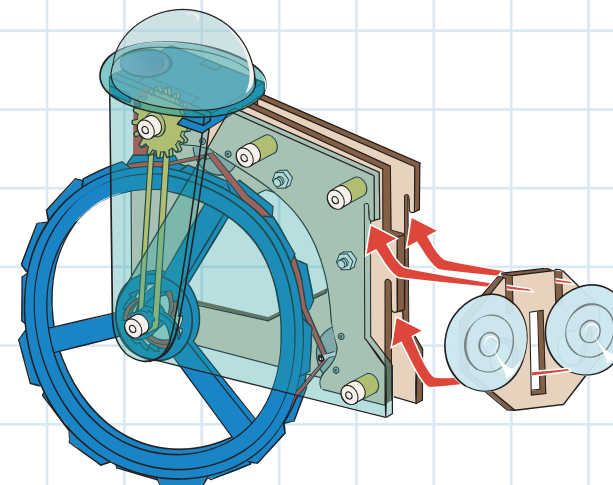
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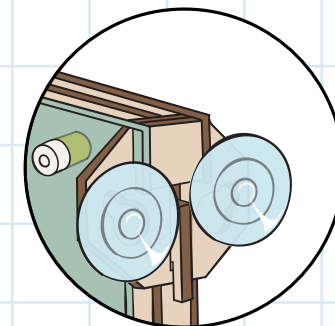
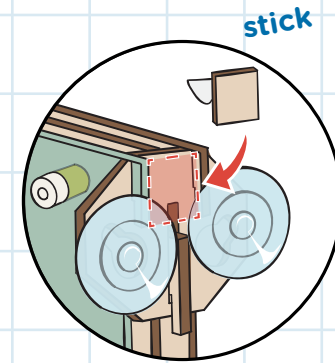
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26




27



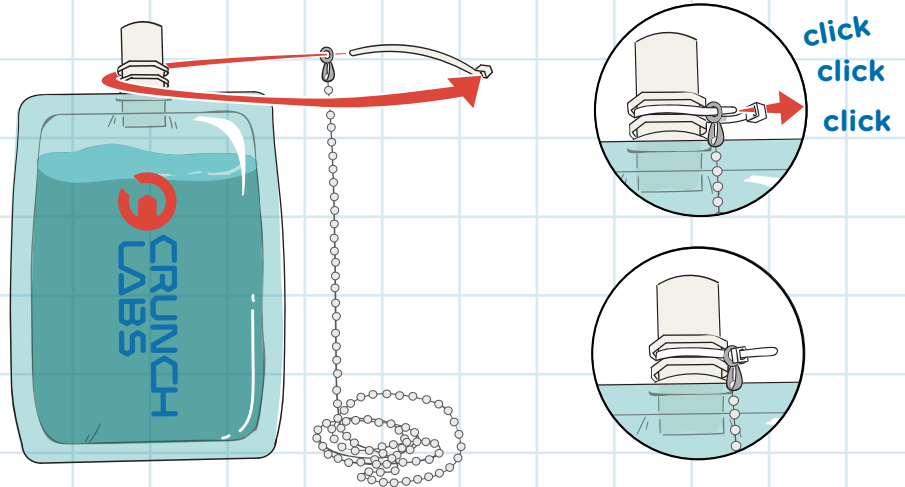
BUILD

BUILD

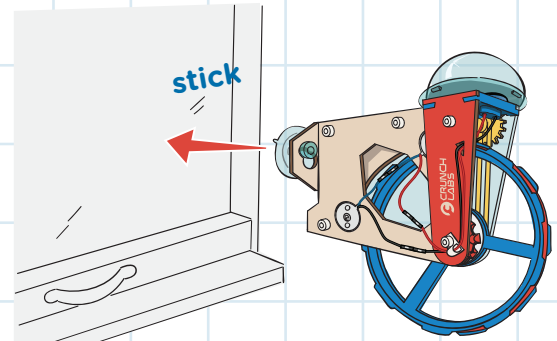
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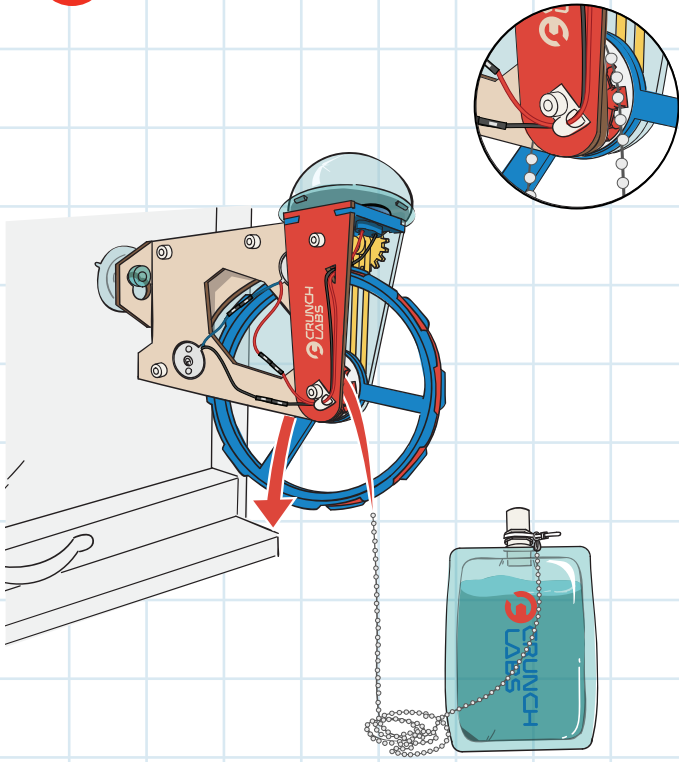
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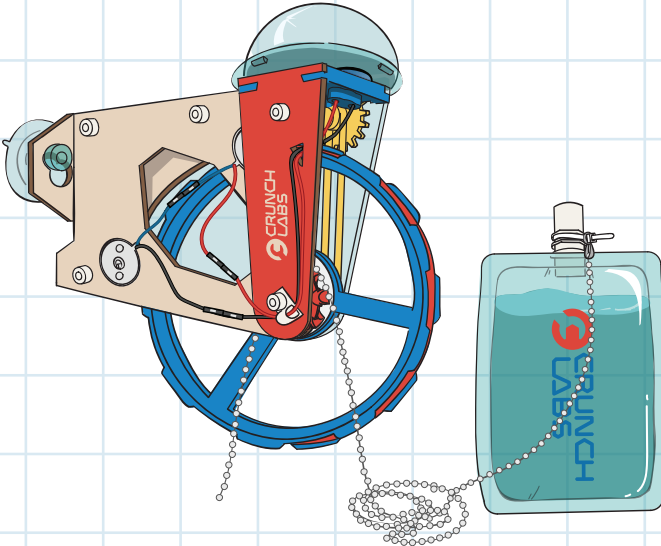
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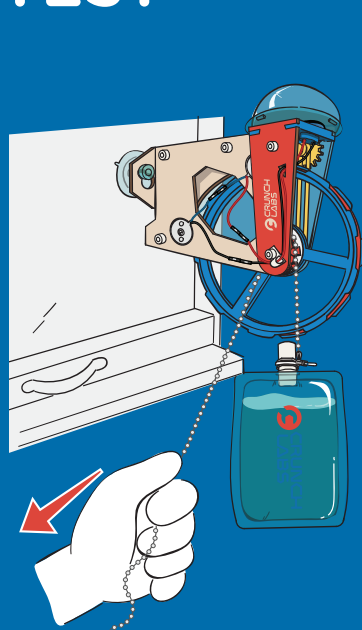
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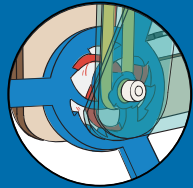
BUILT!



TEST



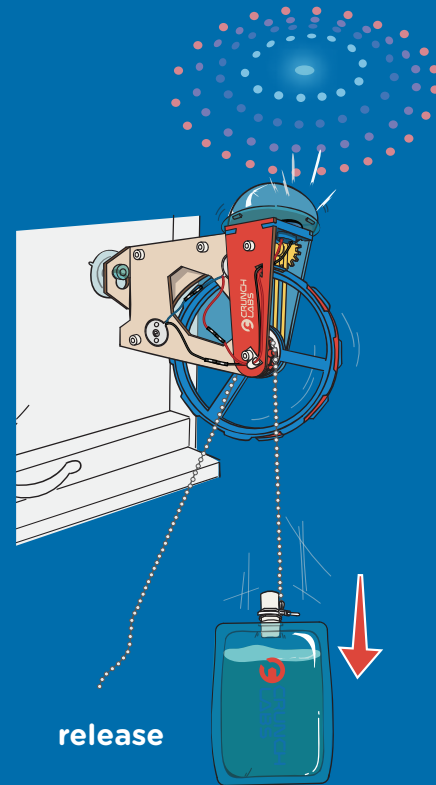
pull



click
click
click

PRO TIP! ▶▶

If the water bottle is not heavy enough to rotate the wheel, just add more water.



release

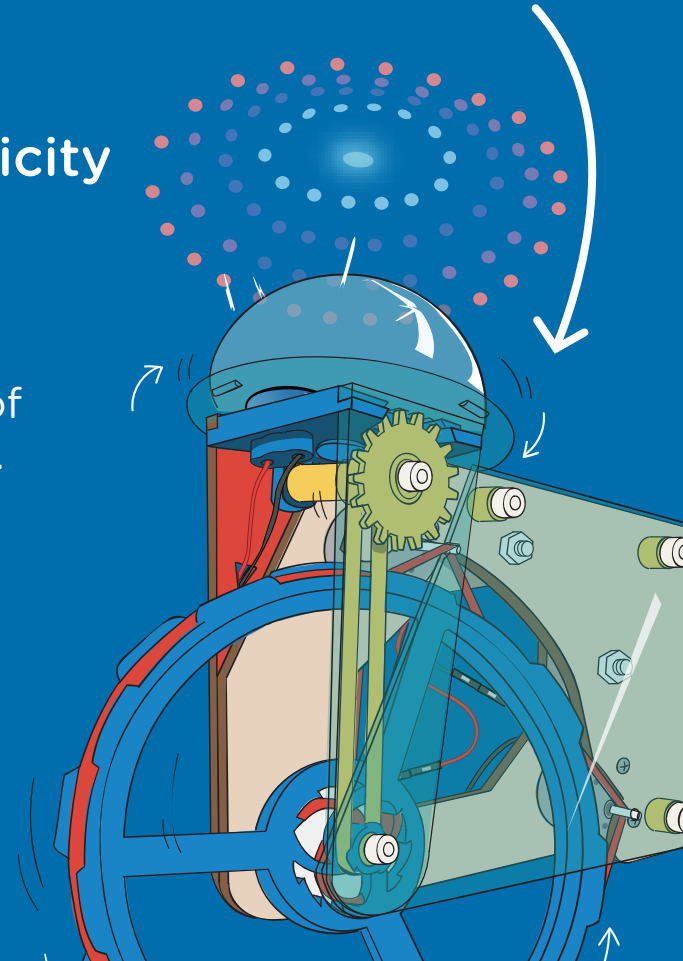
Having trouble? Watch the video at crunchlabs.com/disco

THINK

A generator is a device that converts mechanical motion into electrical energy.

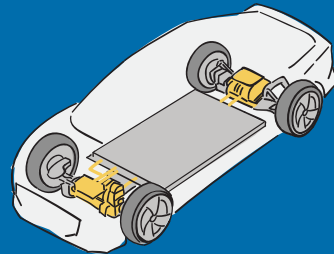
Basically, a generator makes electricity when you spin it.

Did you know that you can use a motor to create electricity? When you turn the shaft of a motor by hand, it functions as a **generator**. The **rotational energy is transformed into electricity** that can turn on a light, charge a battery, or even power another motor! Your Disco Dynamo uses the gravity-powered wheel to spin the shafts of two motors, generating enough electricity to power the LED without any batteries!



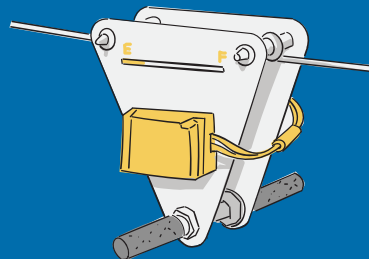
THINK

In addition to generating gravity-powered disco parties, generators are used in many places to create electricity from rotation, such as in the turning of a windmill, the spinning blades of a water turbine, or the braking wheels of an electric car.



ELECTRIC VEHICLES

A motor can either use electricity to create rotation, or it can produce electricity by being rotated. In electric cars, the motors that rotate the wheels are used as generators when braking to recapture energy and recharge the battery.

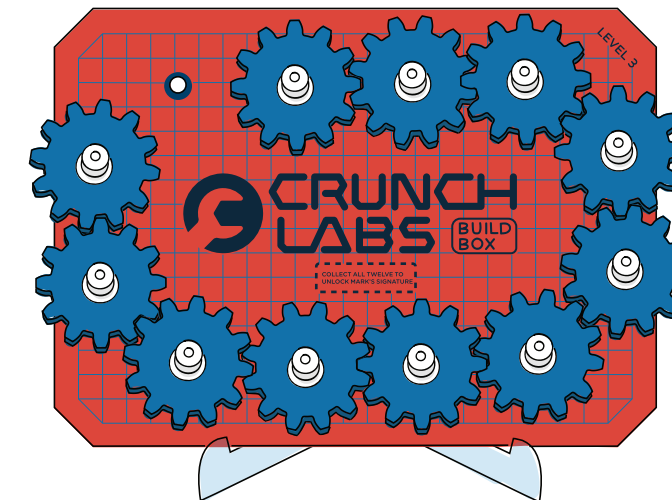
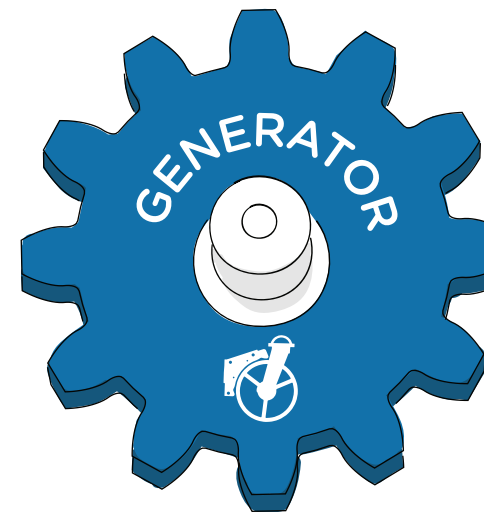


POWER PLAY

In Mark's Video "World's Largest Lemon Battery," he builds a regenerative zipline that converts the rotational motion of the zipline pulleys into electrical energy that he stores in a battery.

THINK

CONGRATULATIONS! You earned a gear badge for generator



Don't forget to add your gear badge to your gear train!

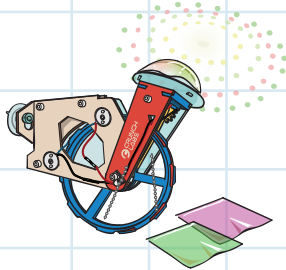
CRUNCH

It's crunch time! Use your engineering superpowers to keep building.



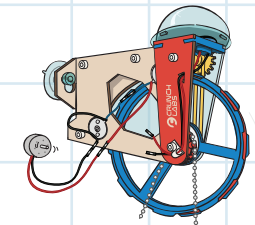
TUNE YOUR WEIGHT

Adjust the amount of water in the water bottle to get either a longer run time or a brighter light. How long can you keep the light on?



CUSTOMIZE YOUR COLORS

Experiment with different materials to change the color of the light. Try removing the disco dome to use the lamp as a reading light.



FULL CIRCLE

Try using your generator to power the motor of another CrunchLabs toy!

SHOW OFF YOUR BUILD



Share your funniest moments & coolest mods!
#crunchlabs @crunchlabs    



SWEEPSTAKES

Each CrunchLabs build box contains the chance to WIN a trip to visit CrunchLabs with Mark Rober! Sadly, you are not a prize winner this time. Check inside your next build box for another chance to win.

Trip includes round trip transportation and two (2) night's hotel accommodations for a family of four (4). Approximate value: \$4,500.

NO PURCHASE NECESSARY. Open to legal U.S. residents, 18 years of age or older. Void where prohibited. For complete Official Rules, including promotion end date and information on how to obtain a free game ticket, visit www.crunchlabs.com/win.

This toy is intended for use by children over the age of eight years. These instructions contain important information, do not throw away.

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