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The cover features a large, detailed white wind turbine in the foreground, set against a background of a golden wheat field under a sunset sky. Several smaller, simplified wind turbine icons are scattered in the distance. The text is arranged in the upper half of the cover.

PLAY • READ • INSPIRE

PLAY STEAM

THE LEARNING BOOKLET

— FOR THE WIND TURBINE —

Read to be inspired!

WARNING:
CHOKING HAZARD - Small parts,
Not for children under 3 years.

AGES **8+**



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WARNING MESSAGE

GENERAL WARNING

Before you begin, please read through the instructions together with your children. Make sure you understand the safety messages. Please keep the packaging and instructions, as they contain important information.

This kit is designed for children over 8 years of age.

CHOKING HAZARD - Small parts, not for children under 3 years.

Children should have parental supervision when assembling the product.

Water and rain will damage the electronic components.

Please clean the product with a clean cloth when necessary.

WARNING: Please keep a safe distance from the high-speed rotating propeller to avoid the risk of wound and cut.

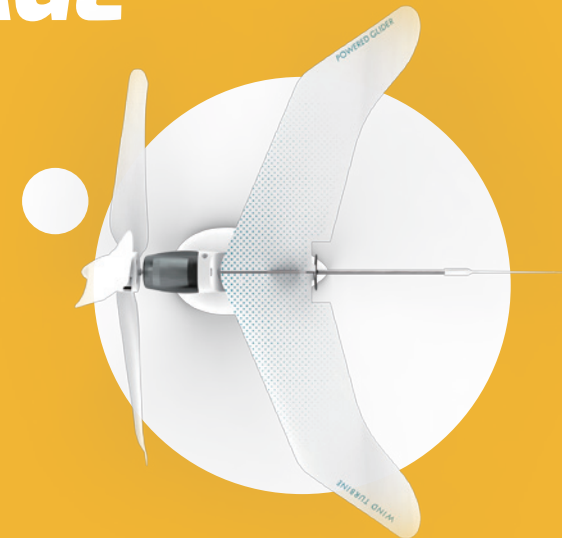
WARNING: This toy produces flashes that may trigger epilepsy in sensitized individuals.

OTHER WARNINGS

Using a screwdriver

You must always be supervised by an adult when using a screwdriver. The metal may have sharp edges that can cause injury.

1 | WARNING MESSAGE





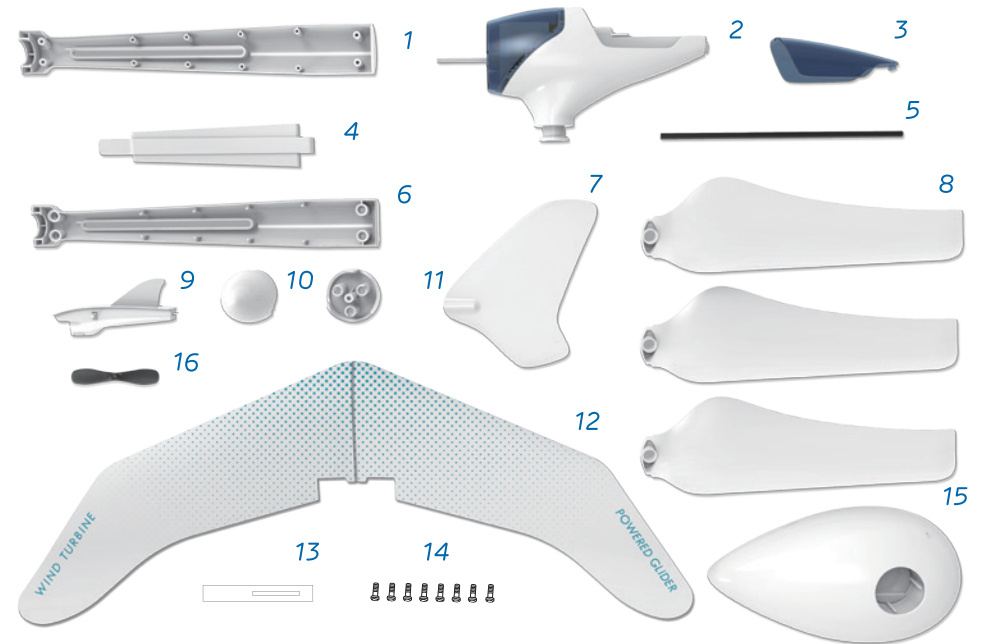
Read to be inspired!



2 | PACKAGE CONTENTS

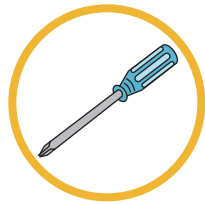


Package Contents



Serial	Name	Quantity	Serial	Name	Quantity
1	Bracket A	1	9	Gilder Body	1
2	Generator	1	10	Front Rotor Hub	1
3	Charger Casing	1	11	Back Rotor Hub	1
4	Light Guide Strip	1	12	Wings	1
5	Carbon Fiber Rod	1	13	Double-Sided Tape	1
6	Bracket B	1	14	Screw PB2.3 * 6	7 + 1(spare)
7	Wind Vane	1	15	Base	1
8	Rotor Blades	3	16	Propeller	1

Necessary but not included

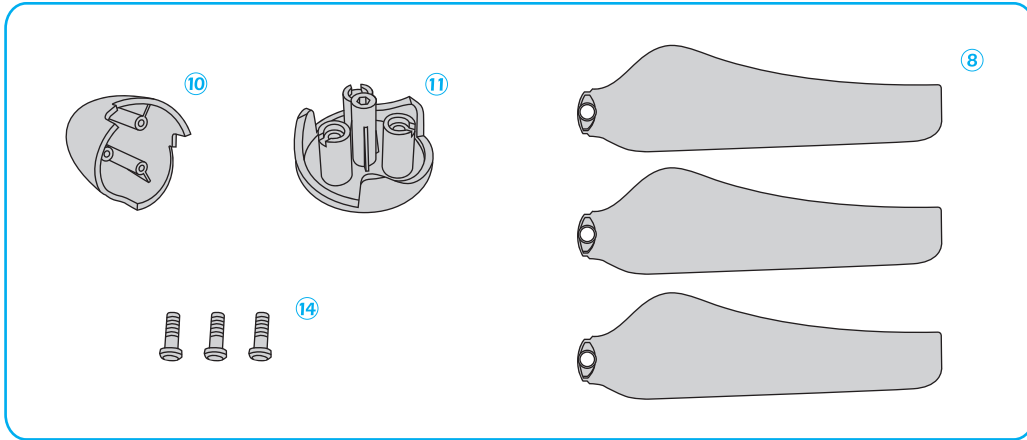


Cross-head screwdriver

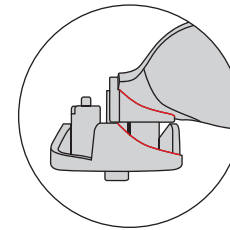
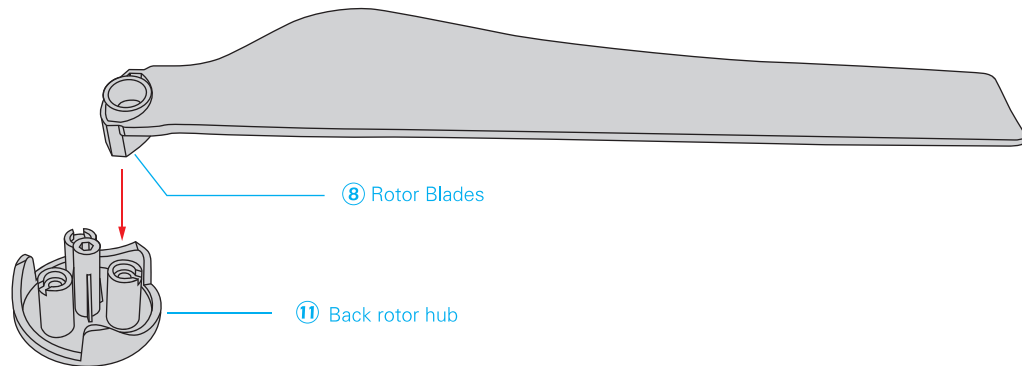
3 | INSTALLATION

Installation-Instructions

Blades Installation

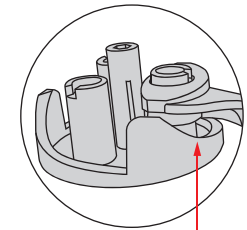


- 1 Firmly secure the rotor blades into the back casing as shown in the diagram. Pay attention to the direction.



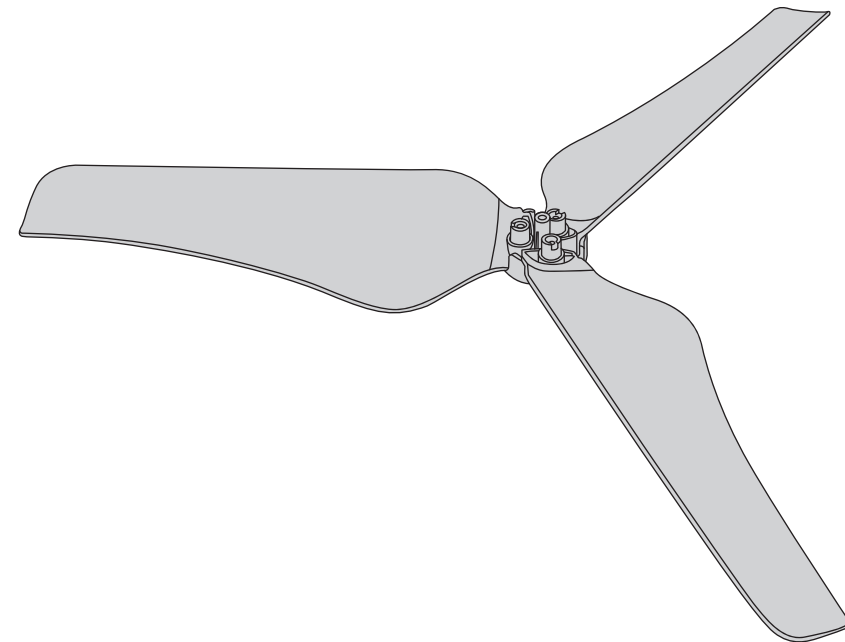
✓ YES

Fit the blades tightly into the rotor hub

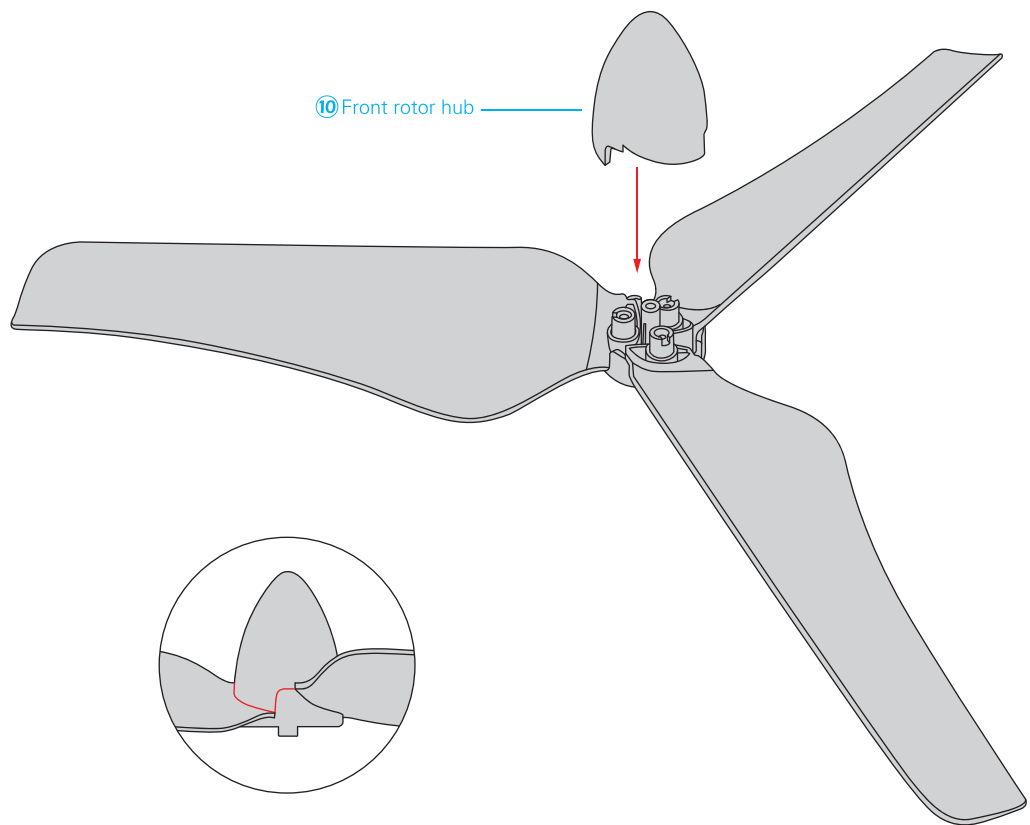


✗ NO

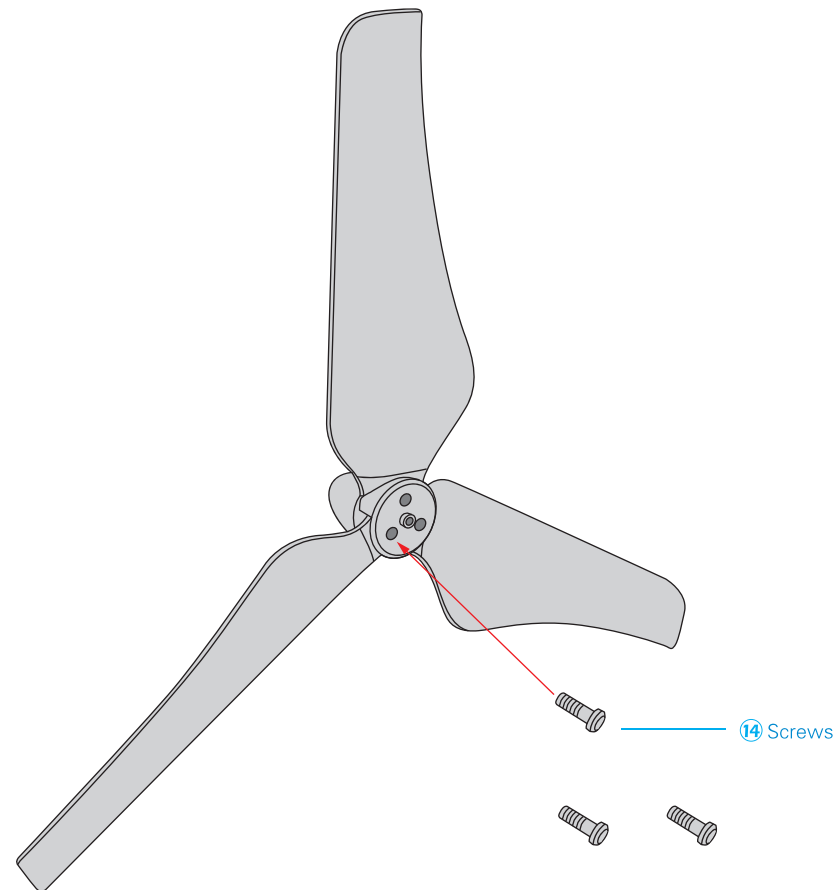
Gaps between the blade and rotor hub



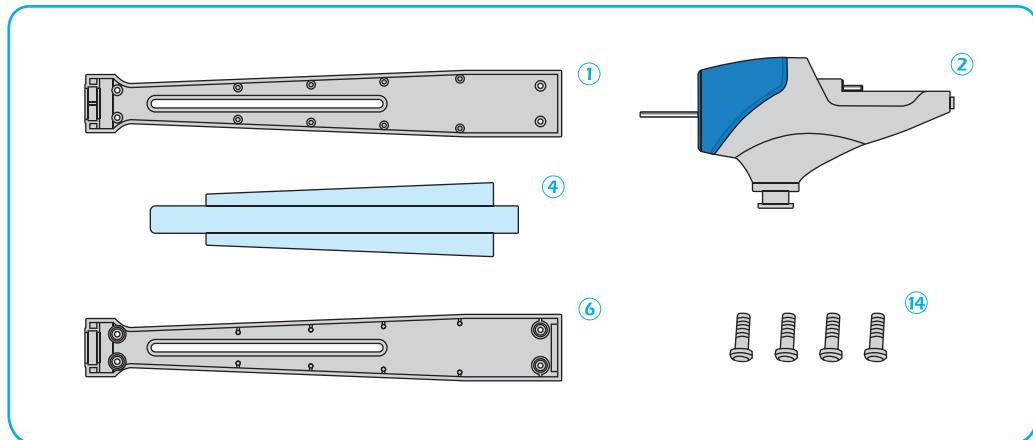
2 Attach the front rotor hub firmly to the blades.



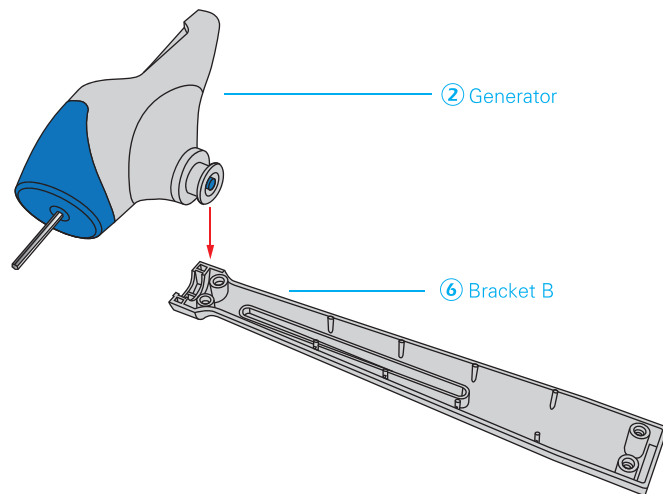
3 Secure three screws into the back of rotor hub and securely tighten them.



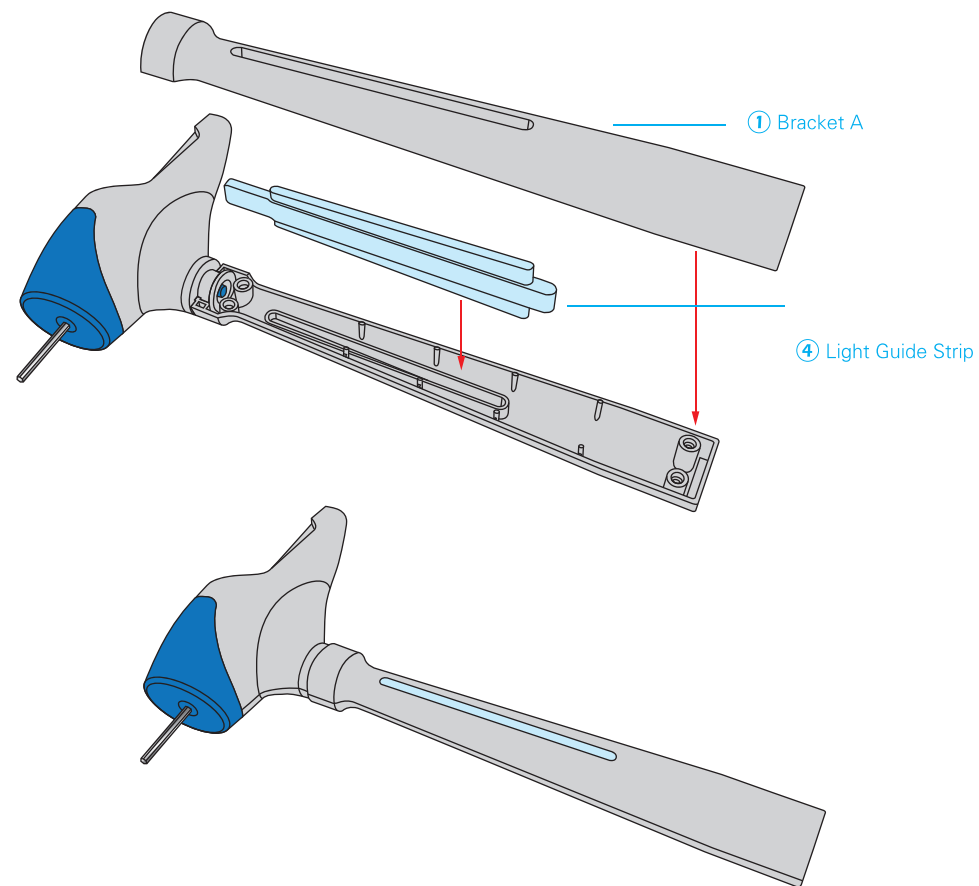
Assembling the generator unit



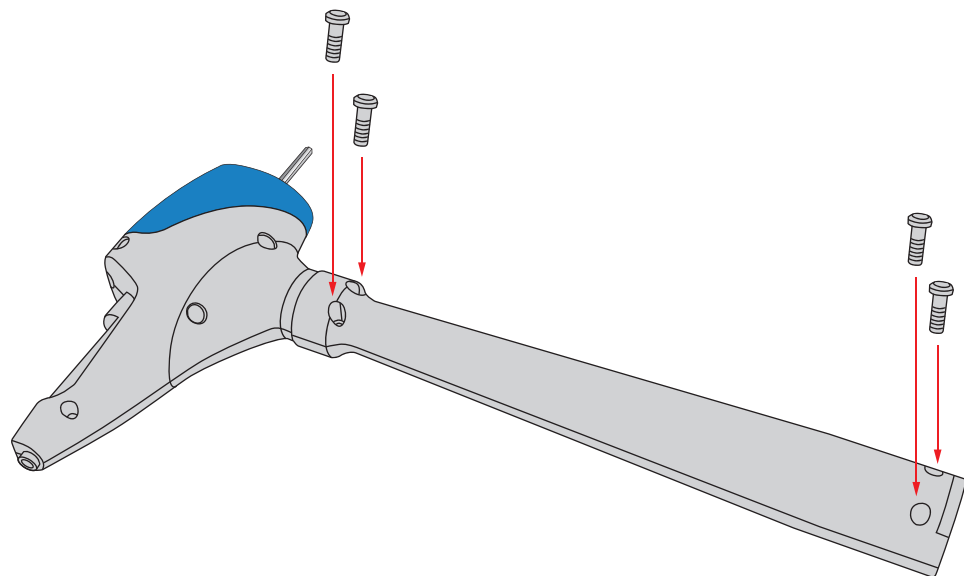
① Attach the generator to bracket A as shown in the diagram



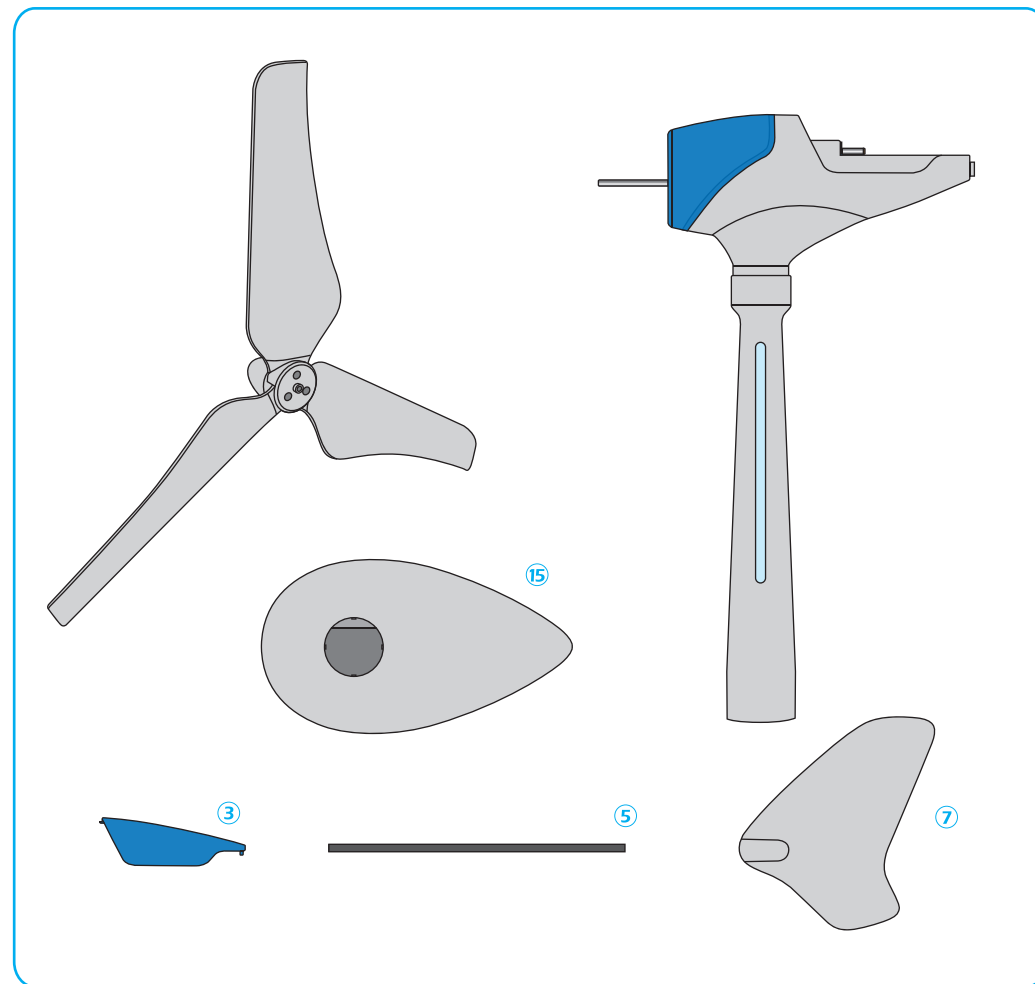
② Attach the light guide strip to bracket B as shown in the diagram.



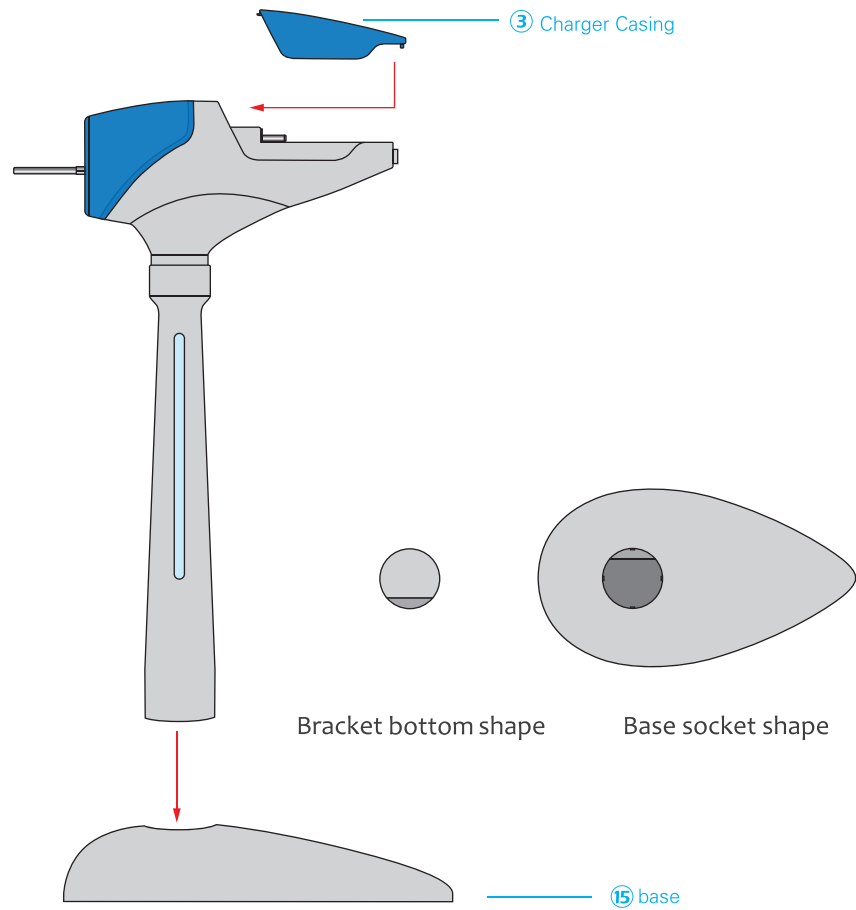
3 Insert the screws into the back of the bracket and securely tighten them.



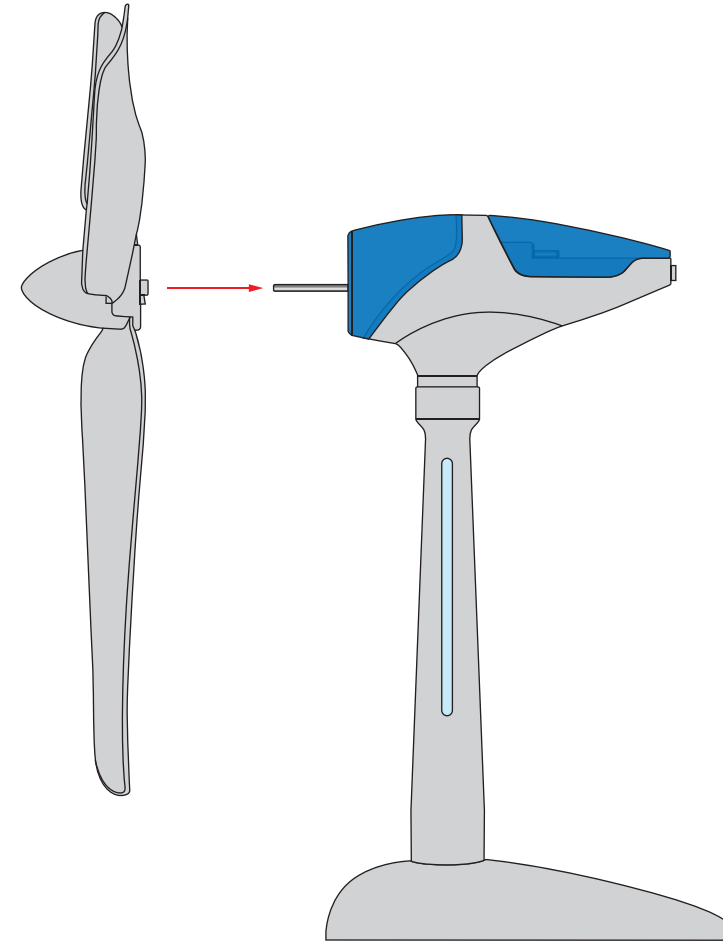
Assembling the electrical tower



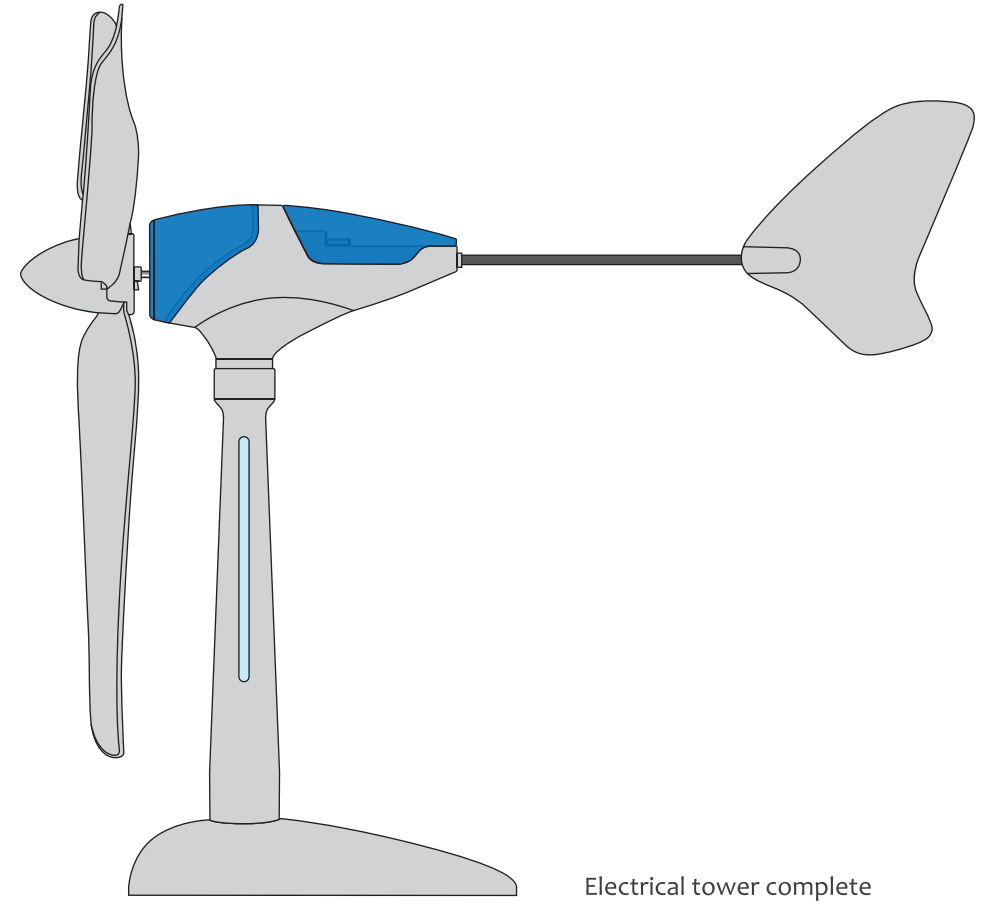
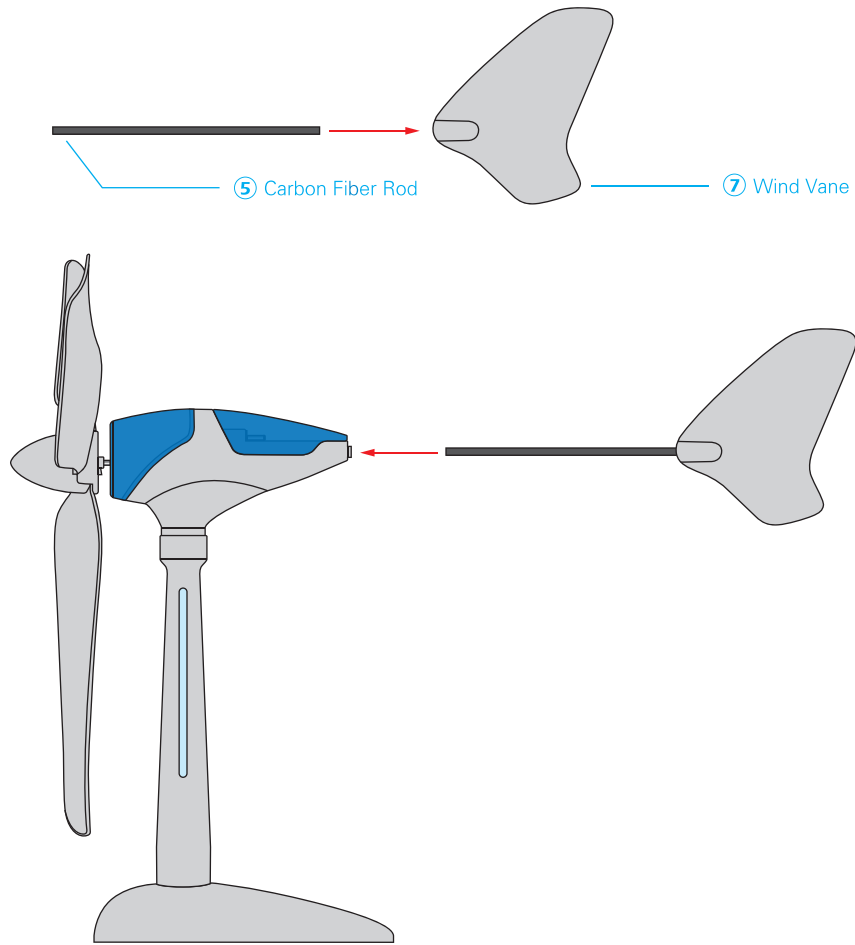
- 1 Insert the generator unit into the base (ensure that the tab at the bottom of the bracket is correctly matched with the socket in the base), then attach the protective cover of the charger casing.



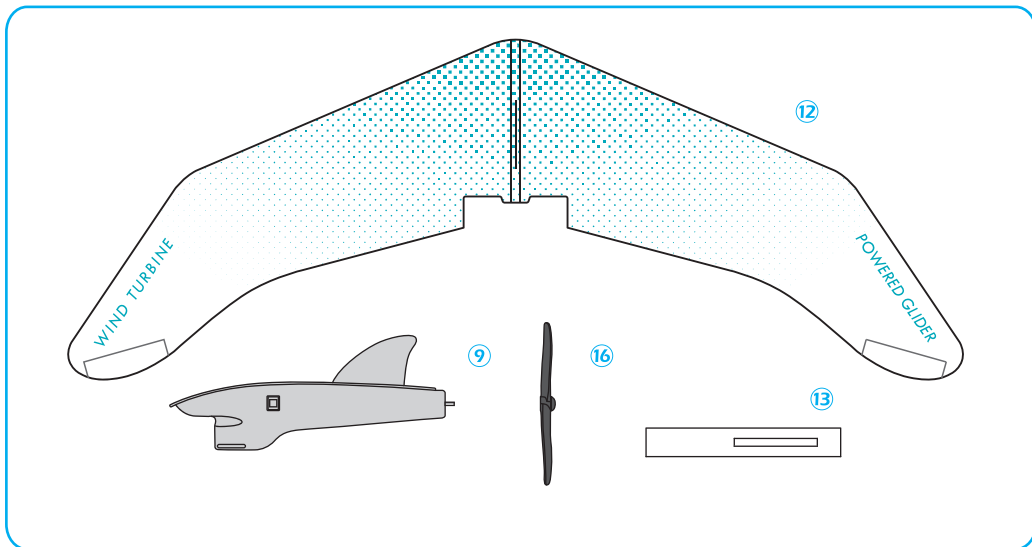
- 2 Attach the rotor blades to the generator shaft as shown in the diagram.



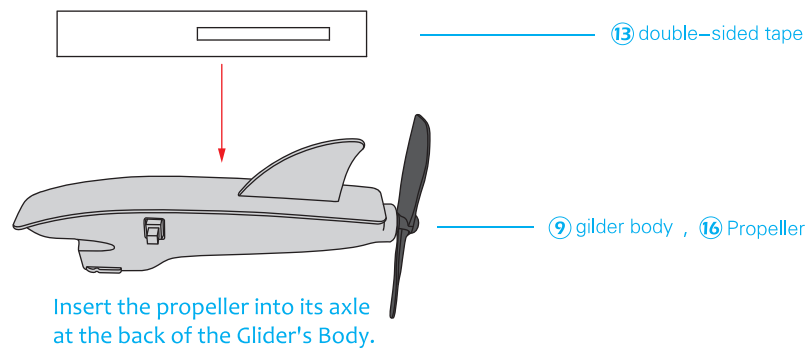
- 3 Insert one end of the carbon fiber rod into the wind vane and the other end into the generator.



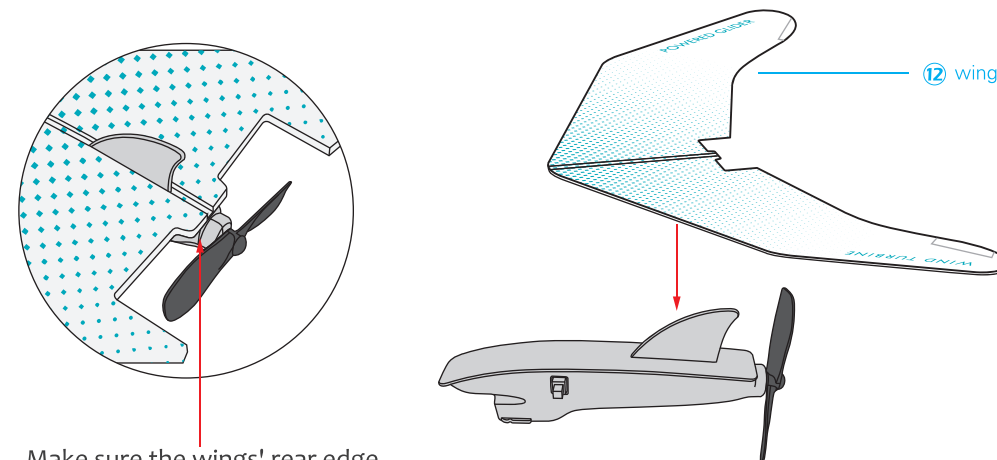
Assemble the airplane



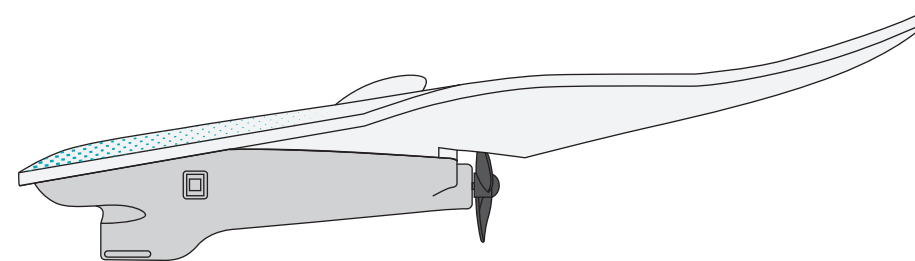
- 1 Remove the protective paper cover from the double-sided tape and stick it to the top surface of the glider body.



- 2 Insert the dorsal fin into the slot at the centre of the wings and press the wings against the glider body to ensure it is securely fastened.

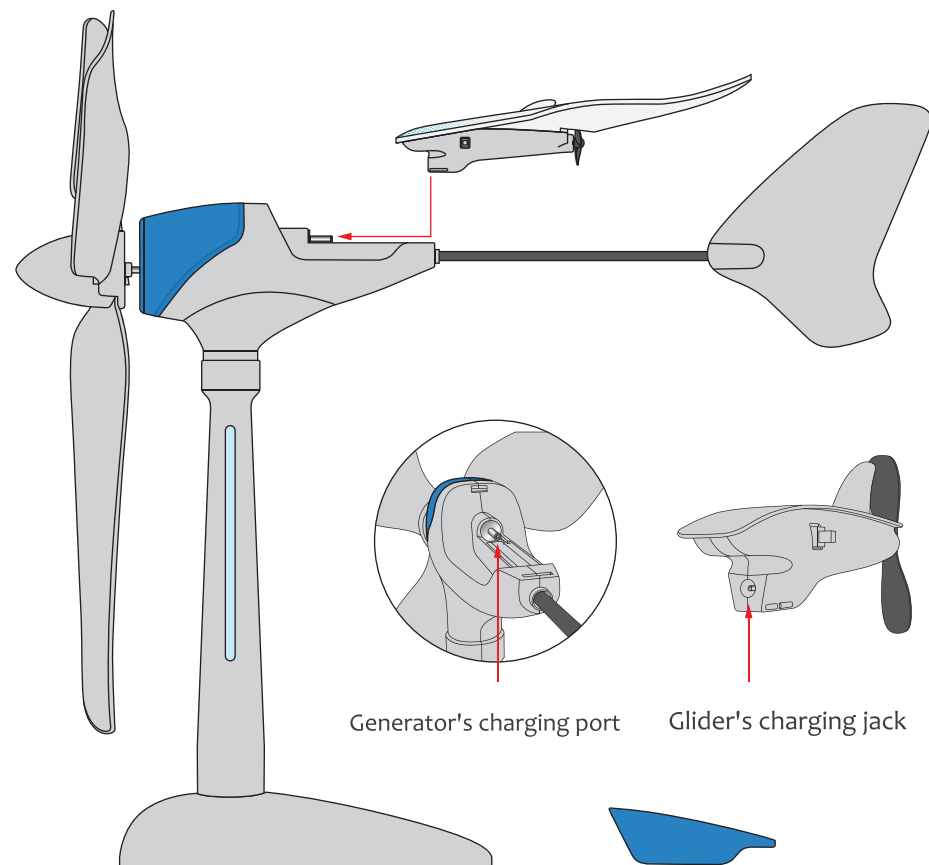


Make sure the wings' rear edge is even with the glider body end. The wings cannot extend past the end of the glider body - this might cause damage to the propeller's blades.

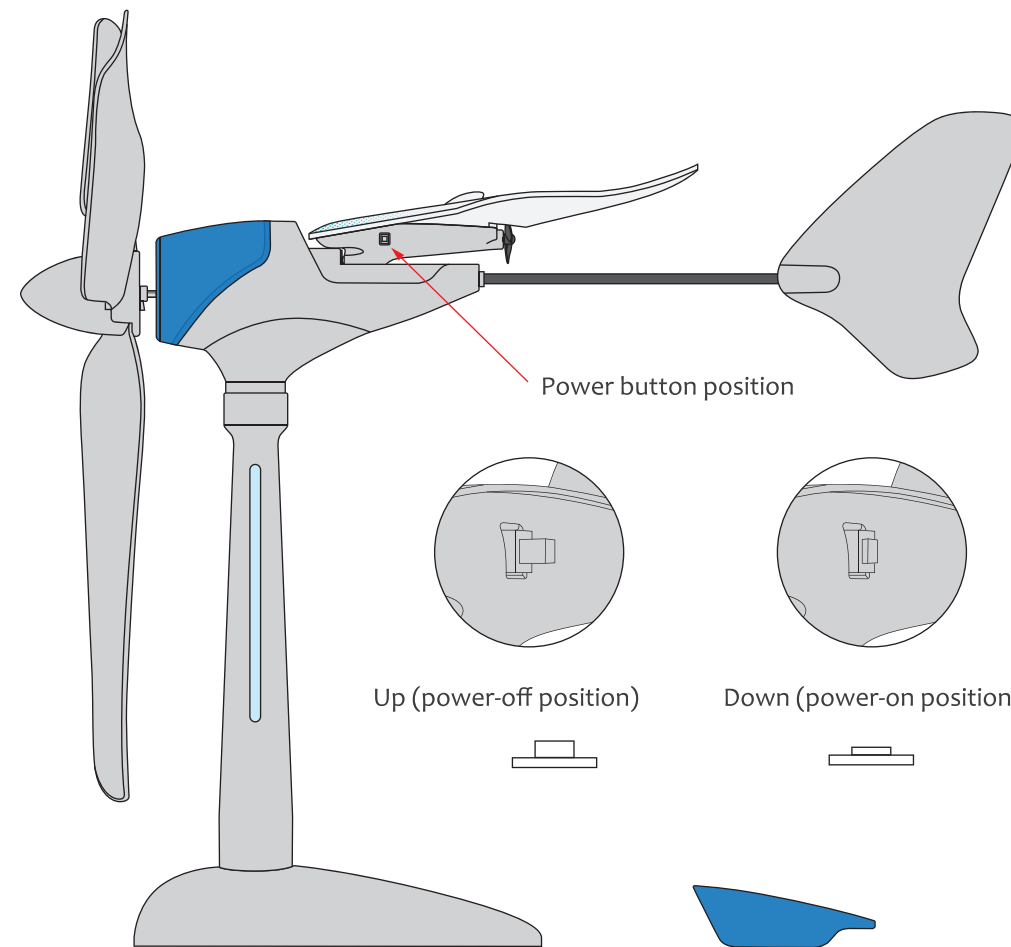


Preparation for charging

- 1 Remove the cover from the charger casing and attach the charger to the charging jack at the nose of the plane.



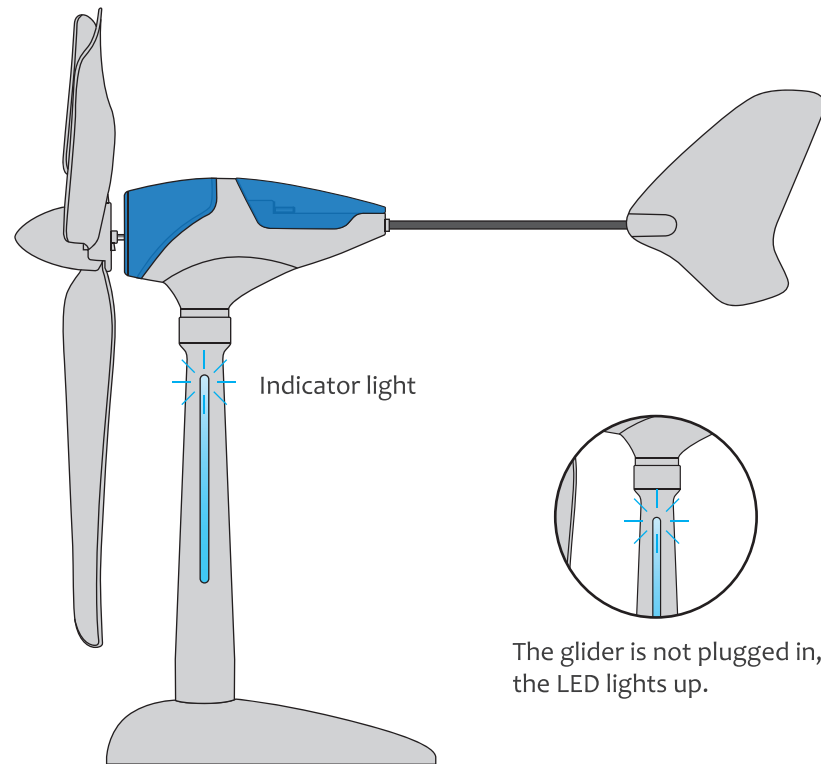
- 2 After plugging it in, make sure the power switch is turned off. This product's power switch is self-locking (Press the button down to power on, and the button will lock; press down again and it will spring upward to the power-off position).



charging instructions

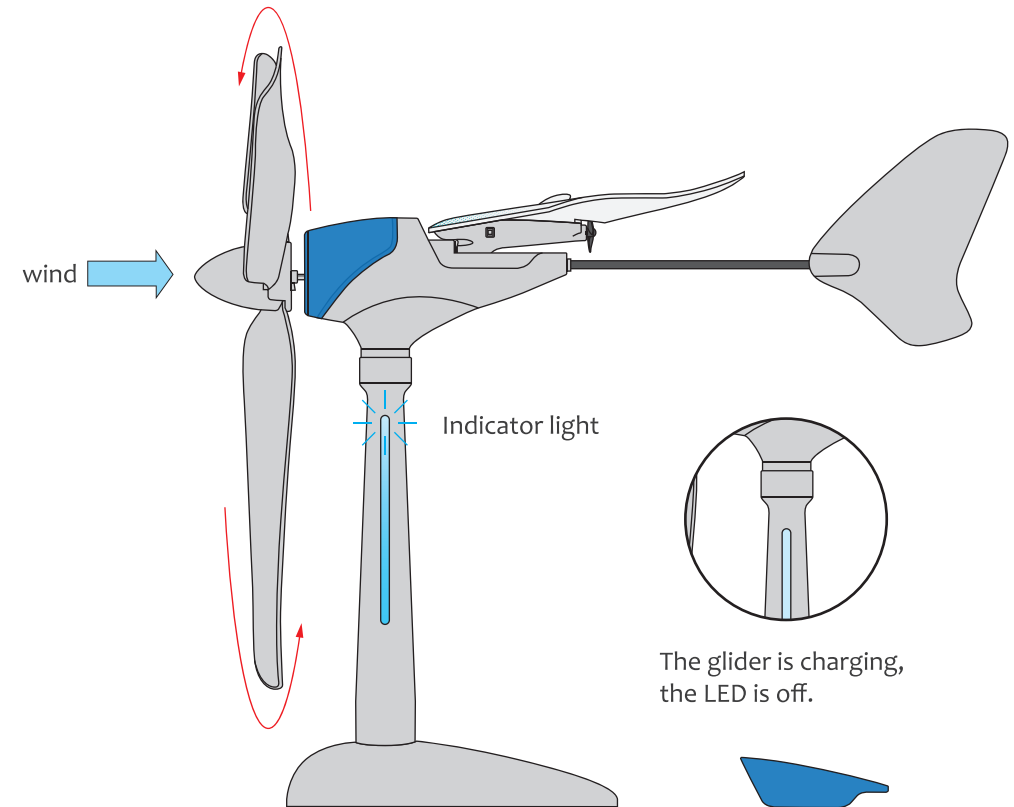
Situation 1

When the blades catch the wind and begin spinning, the generator rotor will rotate and generate electricity. If the glider is not plugged in, the electricity will be transferred to the mast to light up an LED. You can try it in a dark environment for an even better effect.



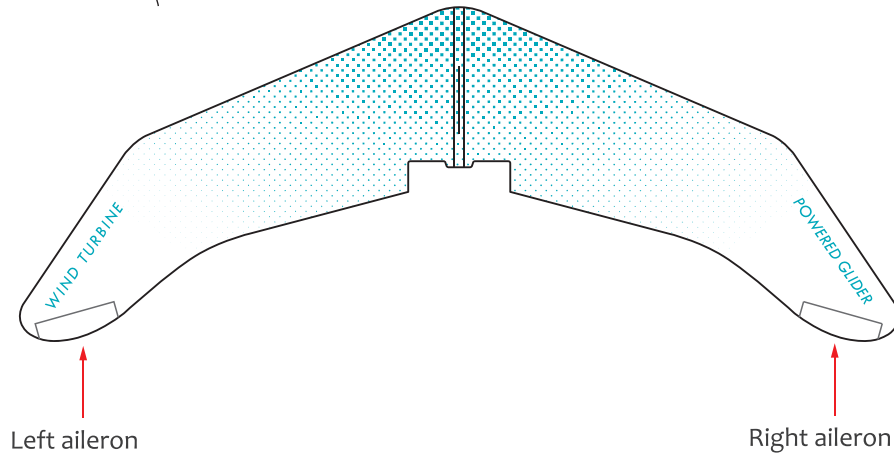
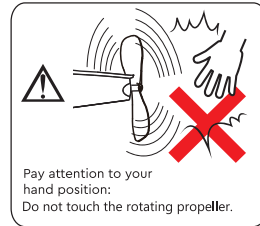
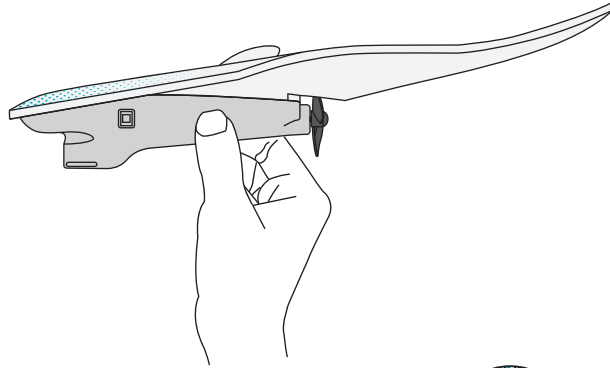
Situation 2

When you plug the glider on, the electricity produced by the generator will be used to charge the glider's capacitor. The turbine's blades should rotate around 200 turns to fully charge the glider. In conditions of weak or absent wind, you can hold your turbine and walk or run around 50 meters. The turbine is very sensitive and will start spinning as soon as you start walking.



Flight test

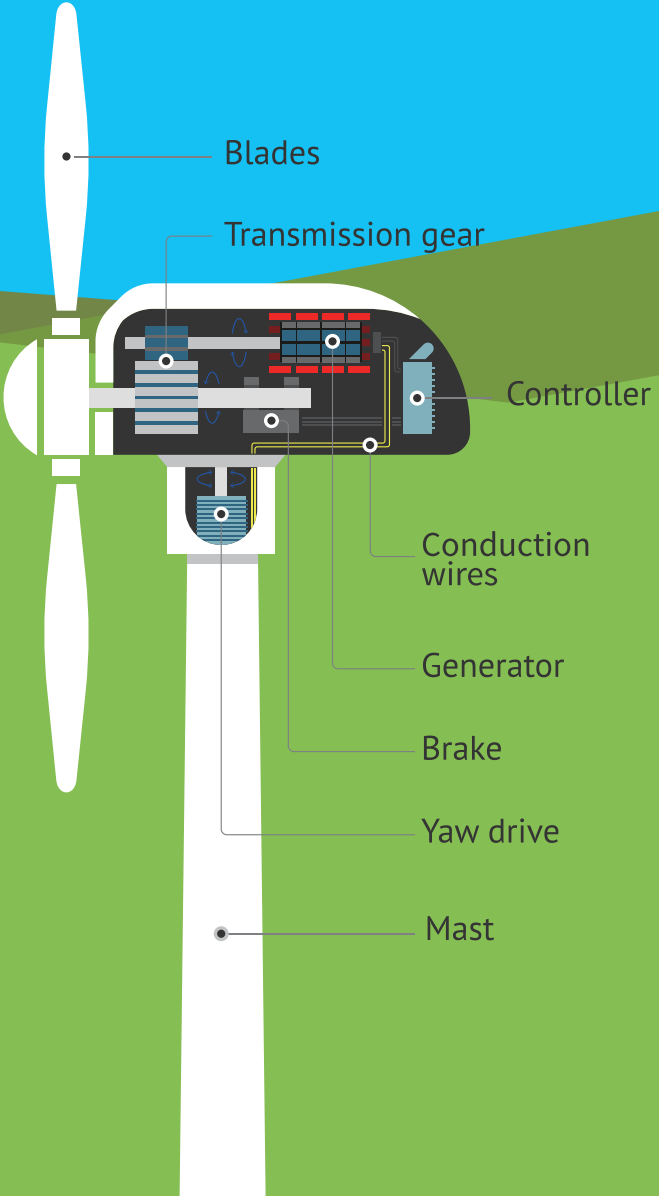
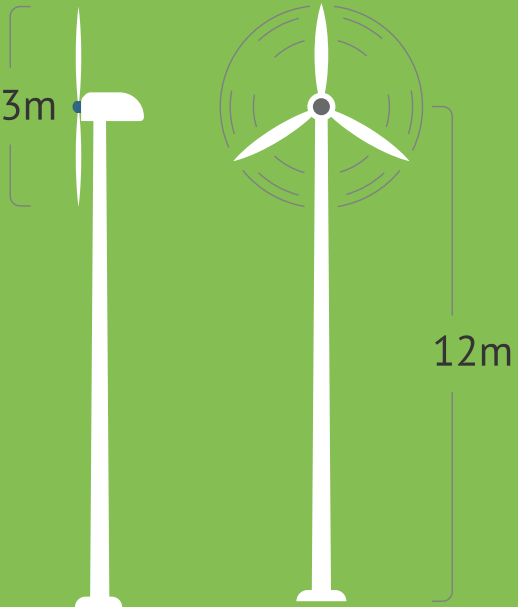
Press the power switch (switch will lock on), the high-speed propeller will start to rotate. Horizontally throw the airplane forward. The model will fly automatically. If the propeller turns slowly (making the plane unable to fly normally), continue charging the airplane.



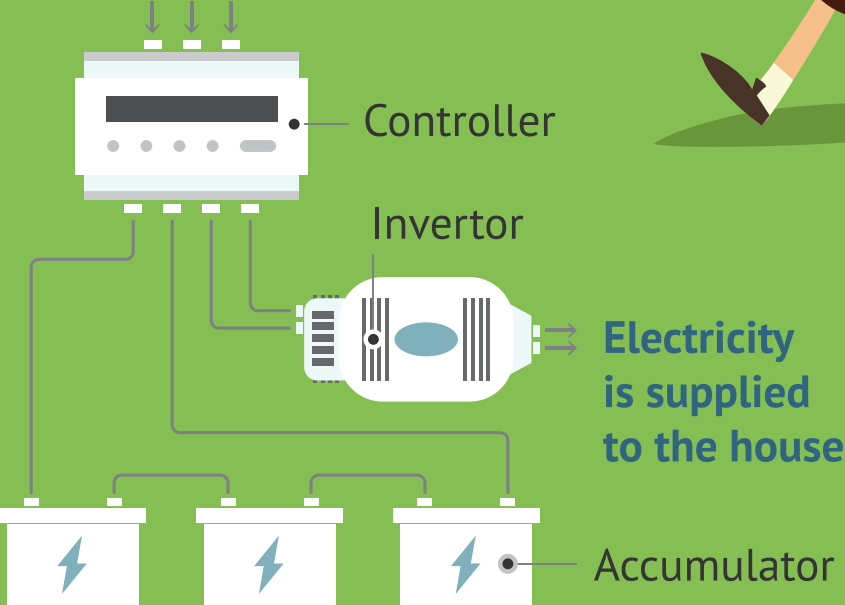
4 | Understanding More about wind turbine



WIND TURBINE FOR YOUR HOME



Electricity supplied by wind turbine





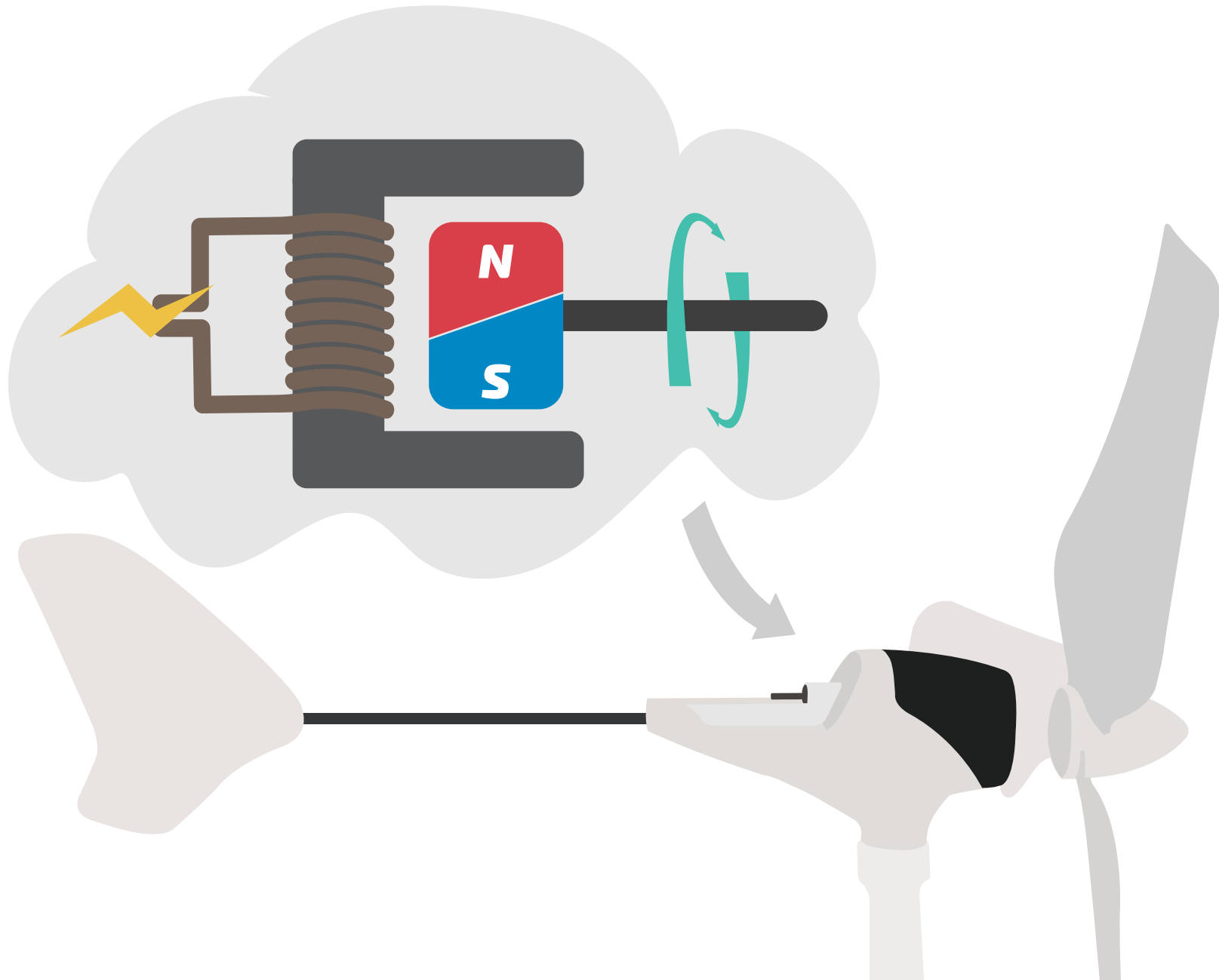
Read to be inspired! 

How big are wind turbines in real life?
A single blade can reach up to 107 meters long.
The highest turbine towers can reach 260
meters tall.

Read to be inspired!

Offshore wind turbines are popular around the world. They can offer power-generation stability due to the offshore wind speed consistency.





What is a generator and how does it work?

A generator is a device that converts "motive power" into "electrical power", in our case to convert wind power into electricity.

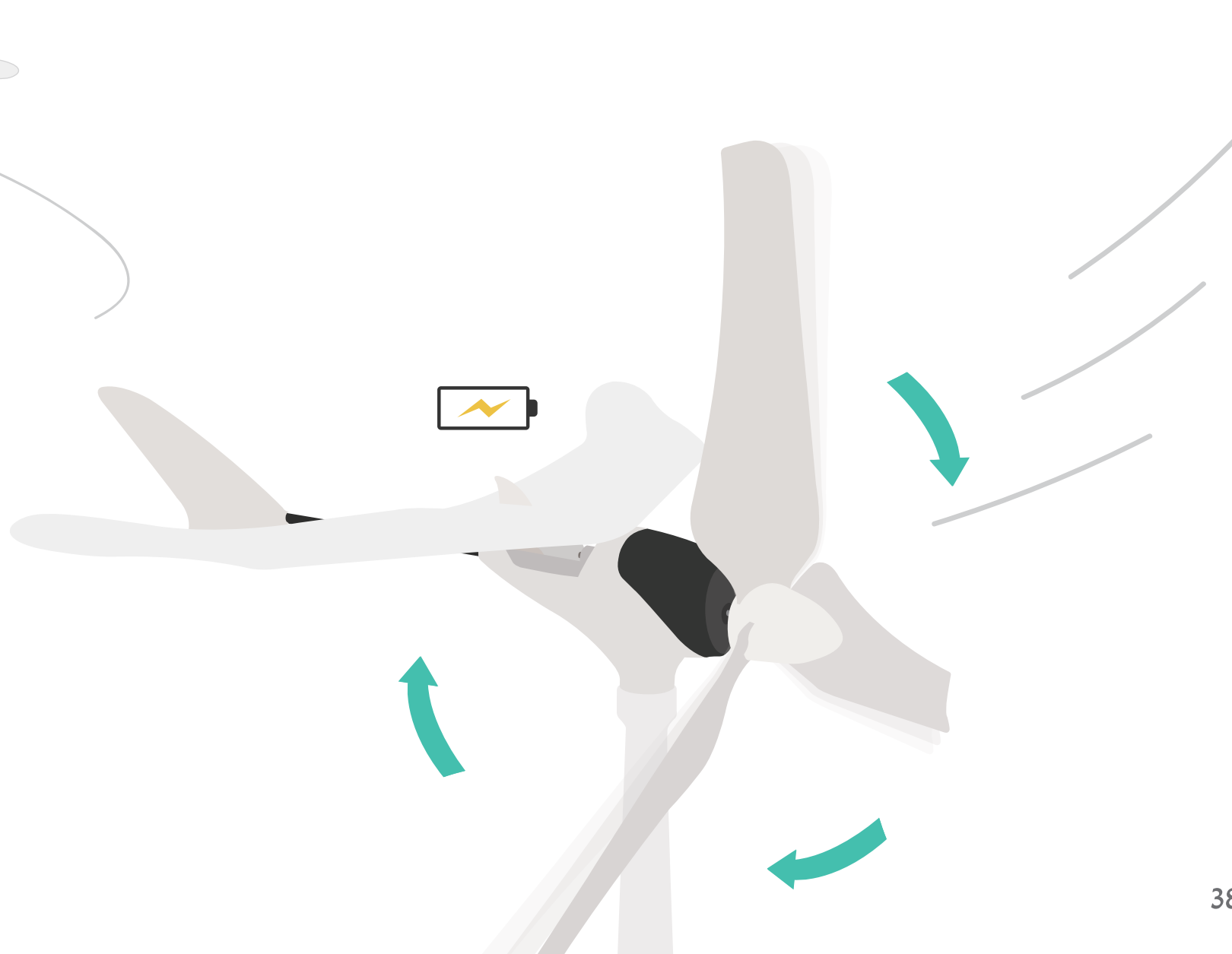
It consists of a magnet rotating into a coil. The moving magnet produces a "magnetic field" that induces current in the coil. To put it in simpler terms, you can imagine the magnet as someone pushing the electricity through the wire.

A green energy cycle

The glider you have in your hands is the world's first wind powered motor glider. As we learned on the previous page, the wind turbine is used to convert wind power into electricity.

This is a "green" way to produce electricity due to its low environmental impact. This electricity is then used to charge your glider to allow it to fly in the sky.

To sum up, energy is taken from the WIND, converted into electricity, used to charge your glider, and allow it to fly back in the WIND. It is a GREEN ENERGY CYCLE.





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