

KidWind Basic to Advanced Upgrade Parts

(Order Code KW-BUPA)

This kit includes all the parts needed to upgrade a KidWind Basic Wind Experiment Kit to a KidWind Advanced Wind Experiment Kit. With this kit, you will be able to complete additional projects in the *Renewable Energy with Vernier* lab book and pump water.

What's Included

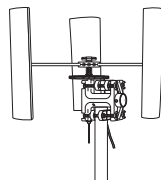
- High Torque Generator with Wires
- Motor Mount Pack
- 250 ml graduated cylinder
- Small Water Pump
- 12" × 1/4" clear tubing

NOTE: Vernier products are designed for educational use. Our products are not designed nor recommended for any industrial, medical, or commercial process such as life support, patient diagnosis, control of a manufacturing process, or industrial testing of any kind.

Suggested Experiments

Vertical Axis (VAWT)

Convert the Advanced Wind Experiment Kit into a Vertical Axis Wind Turbine (VAWT). You will need two Motor Mounts—one on each side of the nacelle. Place the tower in the rear Motor Mount, and connect the gears and generator on the same side as the hub. You will have to construct different blades for your VAWT machine—like the H-rotor style shown.

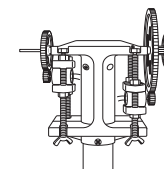


The Advanced Wind Experiment Kit converted to a vertical axis turbine

The Advanced Wind Experiment Kit Dual-Generator System

The Advanced Wind Experiment Kit can be set up with a dual-generator system. If you buy another set of Motor Mounts and nuts and bolts (order code, KW-MTRMNT), you can attach a DC motor to the front and back of the nacelle.

The two generators can be wired in series or in parallel. If wired in series, the voltage will increase. If wired in parallel, the amperage will increase. Before connecting the generators, determine their polarity.



The Advanced Wind Experiment Kit can be set up with two generators.

Related Products

KidWind simpleGEN (order code: KW-SGEN)

Create a generator to mount on the KidWind tower and base to explore how electricity is produced from the energy of motion.

KidWind simpleGEN Classroom Pack (order code: KW-SGENC)

This kit includes materials for ten groups to make their own generators. Assign different groups different numbers of coils or strengths of magnets to explore how these variables affect electricity generation.

Warranty

Vernier warrants this product to be free from defects in materials and workmanship for a period of five years from the date of shipment to the customer. This warranty does not cover damage to the product caused by abuse or improper use.

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Rev. 3/23/2021

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