# **Wind Energy Science Kit**







### **Product Description**

With the Wind Energy Science Kit you can build a miniature power generation system that converts wind into electrical energy. Experiment with the pitch (angle setting) of turbine blades and find out the optimum number of blades for generating electricity. Nine blades, with three types of profiled blade based on NASA aeronautics and one type of poly-propylene sheet blade, provide the opportunity to find the perfect balance of wind resistance, weight and angle.



- ✓ Uniquely designed blade profile based on NASA aeronautics
- ✓ Most realistic wind turbine experimentation available on the market
- ✓ Complete wind energy curriculum covering vertical and horizontal axis turbines
- $\checkmark$  Blade angle adjustable from 0° to 55 degrees (3 positions)

### **Language Pack**

✓ CD Experiment Manual:

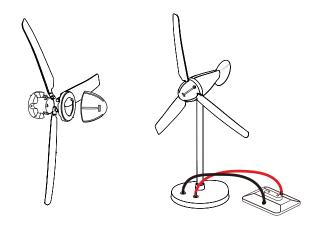


✓ Assembly Guide:



✓ Technical Support Guide:

# **Experiments & Activities**



#### √ Wind Energy Experiments

- 1. How Many Blades Are Best 1, 2, 3 ... More?
- 2. Using Three Different Curved Blade Shapes
- 3. Using Blades You Make Yourself
- 4. Turbine Efficiencies
- 5. Measuring RPM
- 6. Tuning For Maximum Power
- 7. How Blade Angle or Pitch Affects Output Power





### **Kit Content**

- ✓ Mini wind turbine (wind power generator)
- ✓ Kit for learning about wind power energy
- ✓ Blade pitch, blade profile and number of blades can be evaluated
- ✓ Vane aligns the turbine automatically to the direction of the wind
- ✓ Special 3 phase alternator for higher output power
- ✓ LED for output power demonstration
- ✓ Complete educational curriculum on wind energy

### **Certification**

ROhS, EN71:PART1;PART2;PART3, EN62115, PHTH-EU, ASTMF963, CPSIA-LEAD, CPSIA-PHTHALATES, REACH, EMC, CA.

## **Packing Information**

Case Pack Quantity (units):	1		
Master Pack Quantity (units):	9		
Packaging Type:	cardboard		
20´ Container (units):	7135		
<b>40´Container</b> (units):	14550		
Unit Box Length (cm/in):	31	1	12.20
Unit Box Width (cm/in):	15.3	1	6.02
Unit Box Height (cm/in):	5.5	1	2.17
Unit Volume (Litres/Cubic Meters):	2.6	1	0.003
<b>Unit Box Weight</b> (kg/lbs):	0.7	1	1.54
Case Pack Length (cm/in):	44	1	17.32
Case Pack Width (cm/in):	33	1	12.99
Case Pack Height (cm/in):	23	1	9.06
Case Pack Volume Litres/Cubic Meters):	33.4	1	0.033
Case Pack Weight (kg/lbs):	6.7	1	14.77

<sup>\*</sup>The cartons' size may vary between ±1-2 cm.

# **Logistics Information**

Item UPC-Code:	6942503404074
Item HS-Code:	-
Manufactured in:	Shanghai, China
Local Warehouse	Prague, Czech Republic
FOB Harbor:	Los Angeles, USA
First Ship Date:	available now
Minimum Order:	10

<sup>\*</sup>All the information in this datasheet is subject to change without notice  $\ln c$ ase of doubt please contact the Horizon sales team.