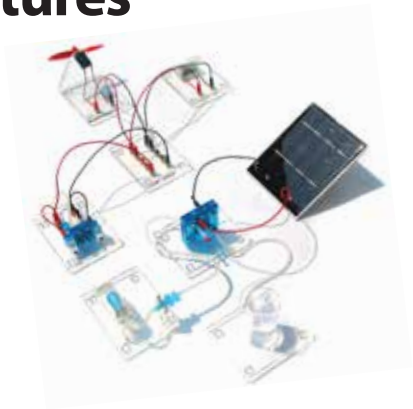
FCJJ-37

Product Description

The Renewable Energy Science Kit demonstrates the workings of a clean energy technology system on a miniature scale. Power an electrical circuit by solar panel or a wind turbine with profiled blades based on NASA aeronautics. Generate hydrogen through water electrolysis and convert it into electricity using a PEM fuel cell. Whichever combination of technologies you want to explore, this science kit is a comprehensive introduction to the principles behind renewable microgrids.

Features



✓ Small-scale wind turbine, solar cell, fuel cell, electrolyzer and more.

✓ Enough hardware, software and curriculum content for groupwork - up to 4 or 5 students.

✓ Recommended age groups- K 6-12

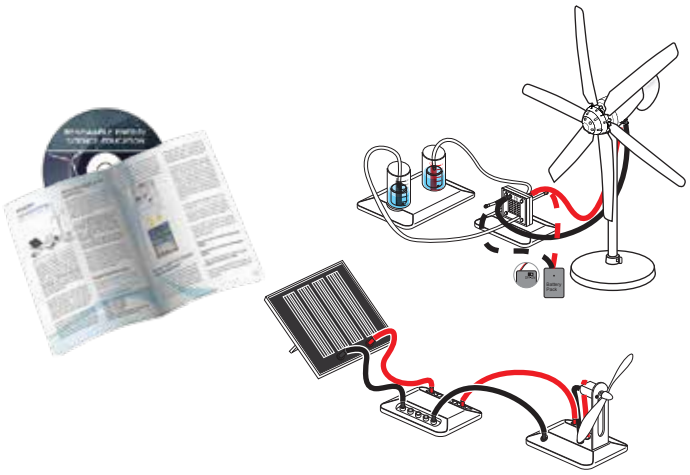
Language Pack

✓ Experiment Manual:

✓ Assembly Guide :

✓ Technical Support Guide:

Experiment & Activities



✓ Solar Energy Experiments

1. The Effect of Heat on Solar Panels
2. The Effect of Shade on Solar Panels
3. The Effect of Tilt Angle on Solar Panels
4. Finding the Solar Panel's Maximum Power Point

✓ Energy from Hydrogen Experiments

1. Electrolysis Mode Generating Hydrogen and Oxygen from Water
2. Fuel Cell Mode Generating Electricity from Hydrogen and Oxygen
3. Determining the Minimum Voltage for Water Decomposition
4. Polarization States for Hydrogen Fuel Cells

✓ 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
8. To Generate Hydrogen

✓ Additional Advanced Experiments

1. Build a Solar Farm
2. Build a Wind Farm
3. Build a Fuel Cells Stack
4. Running Your School With Hydrogen
5. Running Your School With Solar Power
6. Running Your School With Wind Power

Renewable Energy Science Kit

Kit Content

- ✓ Wind turbine body
- ✓ Rotor head for profiled blades
- ✓ 9 profiled blades for turbine
- ✓ Rotor head adapter for sheet blades
- ✓ 3 polypropylene sheet blades for turbine
- ✓ Rotor unlocking tool
- ✓ Turbine Support base
- ✓ Aluminum wind turbine post
- ✓ PEM Electrolyzer
- ✓ PEM Electrolyzer base
- ✓ PEM Fuel cell
- ✓ PEM Fuel cell base
- ✓ Hydrogen tank
- ✓ Oxygen tank
- ✓ Inner Gas containers
- ✓ Circuit board module base
- ✓ 100 ohm Variable Resistor module
- ✓ 1 Watt Solar panel
- ✓ Adaptors, tubing clincher & purging valve
- ✓ Assembly instructions
- ✓ CD with curriculum manuals
- ✓ Water/gas tank module base
- ✓ Flexible 2mm banana connecting leads
- ✓ Transparent silicon tubing
- ✓ Plastic plug pins for electrolyzer
- ✓ Battery pack with connecting leads
- ✓ Syringe

Certification

EN71:PART1;PART2;PART3, ASTM,CA, CPSIA_LEAD, CPSIA_PHTH, EN62115, PHTH-EU, REACH, ROHS

Packing Information

Case Pack Quantity (units):	1
Master Pack Quantity (units):	6
Packaging Type:	cardboard
20´ Container (units):	1380
40´Container (units):	3240
Unit Box Length (cm/in) :	44 / 17.32
Unit Box Width (cm/in):	33 / 12.99
Unit Box Height (cm/in):	11 / 4.33
Unit Volume (Cubic Meters/Litres):	0.016 / 15.97
Unit Box Weight (kg/lbs) :	2.056 / 4.52
Case Pack Lenght (cm/in):	62 / 24.41
Case Pack Width (cm/in):	44 / 17.32
Case Pack Height (cm/in):	35 / 13.78
Case Pack Volume (Cubic Meters/Litres):	0.095 / 95.48
Case Pack Weight (kg/lbs):	13.93 / 30.65

Logistics Information

Item UPC-Code:	6942503401004
Item HS-Code:	39261000
Manufactured in:	Shanghai, China
Local Warehouse:	Prague, Czech Republic Los Angeles, USA
First Ship Date:	available now
Minimum Order:	12.0