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## 1. Malvern Energy Conversion Devices

Separately available units which enable the user to show transformation of one form of energy to another.

### Fly Wheel Unit

For use with a large motor/generator and a lamp unit to demonstrate the transformation of electrical energy to kinetic energy and back again. Comprising an iron flywheel 115mm  $\varnothing$ , mass 1.2kg in cast bracket with bearings. Shaft has an aluminium 44mm  $\varnothing$  pulley for driving. Spring belt supplied.

Code	Pack	Price
PH0467D	Each	£53.90

### Turbine/Pump Unit

Use as a water turbine to drive a generator producing electricity or as a pump driven by a motor, raising a head of water to produce potential energy. The rotor has eight bucket blades and is housed in a block turbine chamber 50 x 50 x 25mm with a clear Perspex® front. Two inlet (for turbine and pump) and one outlet tubes are provided. The shaft carries a 15mm  $\varnothing$  pulley. A driving belt is supplied.

Code	Pack	Price
PH0467G	Each	£28.37

### Mounted Lamp

12v 24w SBC bulb in a metal socket, mounted on a base with pair of 4mm sockets to tie into solar cell. For energy transformation experiments.

Code	Description	Pack	Price
PH0467MN	Mounted lamp	Each	£5.14
RAYBULBN	Spare bulb	Each	£1.10

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## 2. Malvern Motor Generator

Mounted driving unit or dynamo. Great for use as a tool for studying the input/output of larger motors on a comparative level. 2 - 6V DC motor and 15mm V pulley. Mounted on base size is 6" x 4" with 4mm terminal socket.

Code	Pack	Price
PHY1030	Each	£16.76

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## 3. Malvern Spring Unit

For showing potential energy in a wound-up spring and its transformation to electrical energy by driving a dynamo and lighting a lamp. Can be used to wind up a weight on a cord showing the change from potential energy to kinetic and back. The steel shaft carries a clock spring with a free wheel device and winding ratchet, also an aluminium 'V' pulley 56mm  $\varnothing$ . One end of the shaft overhangs the base for use as line shaft. Dimensions 220 x 100 x 100mm.

Code	Pack	Price
PHY1024	Each	£24.43