

# UNIVERSAL MECHANISMS KIT HME10



Year 1 study

4 to 5 participants

15 to 30 mins setup

15 to 30 mins duration

Space required 1.5(L) x 1(W)m

### **Features**

- Extensive bench top apparatus for Mechanism fundamentals
- 26 mechanism experiments supplied
- Very visual experiments for close work or demonstration
- · Containers for all parts
- · Quick and easy installations
- Double sided mounting board, for large groups
- Experiments mount on board AND on frame

## Description

The HME10 Universal mechanisms kit combines a wide variety of simple mechanism experiments into one single kit. Each experiment can be assembled easily and quickly and are made from high quality, durable materials. The accessories for these units are interchangeable between kits. The core of the mechanism kit is the backboard, mounted to a sturdy aluminium frame for bench top mounting. Onto this backboard can be attached the individual experiments. The frame also allows both the front and the back of the board to be used at the same time, allowing a number of experiments to be undertaken at the same time by different students. The backboard and experiments create a clear and visible layout, which is great for close work or front of class demonstrations.



#### Learning capabilities

- To demonstrate and explain the concepts of a range of mechanisms, which include:
- · Belt Drive
- · Bevel Gear
- · Cam and Roller
- · Chain Drive
- · Crank Motion
- · Differential Wheel and Axle
- · Geneva Mechanism,
- · Quick Return Motion
- · Scotch Yoke
- Screw Jack
- Simple Flywheel, P.E and K.E
- · Simple Gear Train
- Simple Pendulum
- · Sliding Friction and Friction on an Inclined Plane
- Toggle Joint
- · Universal Coupling
- Wedge Principle
- · Weston Differential Chain Block
- · Worm Gear
- Pulley Block (Single, Double and Triple)
- Pulley Block (Simple)
- · Centre of Gravity
- Spring Balance
- Beam Reaction Forces
- Principle of Moments, Beam Balance, Lever
- Triangle of Forces, Parallelogram of Forces, Polygon of Forces

## **Technical Specification**

- Frame: Extruded Aluminium; 1000(L) x 600(H) x 400(W) mm
- Backboard: Durable Plastic with 50mm centre fixings; 9mm thick
- Metal Chains and sprockets
- Plastic Gears
- Quick release fasteners
- Modules supplied in Aluminium Cases
- · Weights and Hangers Supplied

#### What's in the Box?

- 26 experiments and associated components
- 3 x Flight case containing experiments/components
- 1 x Plumb Bob
- 1 x laminate Set
- 10 x 10g hanger
- 1 x Level
- · 2 x 5m spare cords
- · Variety of spare fasteners
- · Hexagon wrenches from 1.5 to 6mm A/F
- 4 x 50g hanger
- 50 x 0.1N weight
- 50 x 0.2N weight
- 1 x Stopwatch
- 5 x 100g weight
- 2 x spring balance
- 1 x Tape measure
- Instruction manual
- · Packing list
- · Test sheet

#### You might also like

- HFN8
- HFN9
- HTM8
- HTM73
- HTM17
- HTM1
- HTM2
- HTM9
- HTM25
- HTM3
- HFN1
- HTM19
- HFC8
- HFC1
- HFC9HFC2

### Weights & Dimensions

- Frame: 1000(L) x 600(H) x 400(W) mm
- Net Weight: 33kg (approx.)
- Gross Weight: 59kg (approx.)
- Packing Case Dimensions: 1080(L) x 490(W) x 810(H)mm (approx.)

### **Essential Services**

• Working Bench space of approximately 1500(L) x 1000(W)mm

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### **Operational Conditions**

• Storage temperature: -10°C to +70°C

• Operating temperature range: +10°C to +50°C

• Operating relative humidity range: 0 to 95%, non condensing

### **Ordering information**

To order this product, please call PA Hilton quoting the following code:  $\ensuremath{\mathsf{HME10}}$ 

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