



## FOUR BAR CHAIN HTM78



Year 1  
study

### Features

- Visual, bench top apparatus
- Rotary motion into oscillatory motion
- Crank, crank pin, con-rod
- Input and output discs
- Angular motion recorded
- Quick connect fixings
- Multiple radii for experiment variation

### Description

Using the four bar chain model, rotary motion is converted into oscillatory motion. A sturdy bench top base, with mounting feet and carry handles, incorporates a disc mounted on ball bearings as a crank. The disc has a protractor scale so that the rotational angle can be accurately viewed and measured. The crank pin connecting the crank to the disc can be set at different radii on the disc. The connecting rod and the oscillating lever are connected together in different lengths using quick-fit bolts. The oscillating crank is attached to a disc with its own protractor angle scale. By rotating the crank and crank lever, the connecting rod is free to move vertically in an oscillatory motion.

### Related Laws/Applications

- Linear Motion to Rotation
- Simple Machines
- Connecting Rods
- Crank, piston, flywheel
- Combustion Engine
- Automotive

### Learning capabilities

- Investigation of the mechanical relationships on four bar chain mechanisms
- Varying the crank radius, radius of oscillation and connecting rod length
- Demonstration of the operation of axle pivot steering

### Technical Specification

- Crank disc with 25 and 37.5mm radii
- Oscillating crank lengths: 60; 160; 180; 200; 220mm
- Connecting rod lengths: 100, 150 and 200mm
- 360° protractors, 1° increments

**What's in the Box?**

- 1 x HTM78 assembly
- Instruction manual
- Packing list
- Test sheet

**You might also like**

- HTM17

**Weights & Dimensions**

- Weight: 2 kg
- Length: 350mm
- Width: 250mm
- Height: 50mm

**Essential Services**

- Sturdy Bench top

**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:  
HTM78

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