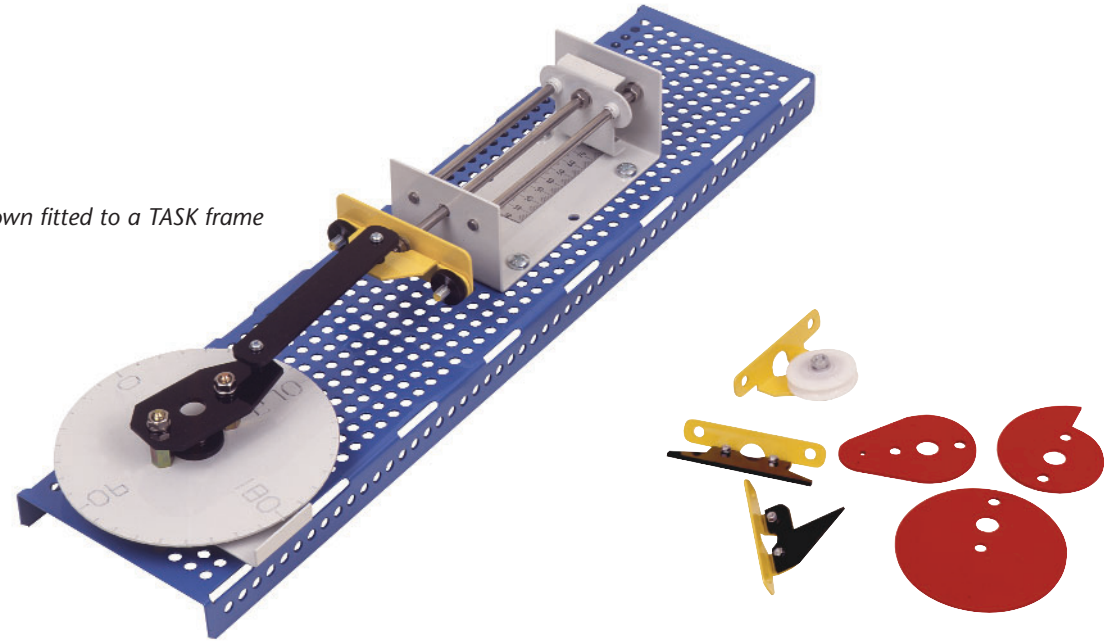
MM1

TASK Cam and Crank Kit

Shows how a crank and different cam mechanisms work



Shown fitted to a TASK frame

- Ideal for classroom demonstrations and for use by small groups of students
- Fits onto one of the optional TASK Frames and shows students how a crank and different cams and followers work
- Includes a selection of cams and followers
- Colour-coded parts to help students understand what each part does
- Supports all teaching levels up to and including first year university courses
- Hands-on equipment - easy-to-assemble parts allow students to build the experiments for improved understanding of the experiment

- **TecQuipment** products are designed and manufactured by TQ Education and Training Ltd
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- TQ is an ISO 9001 certified company

TecQuipment

MM1 TASK Cam and Crank Kit

Description

A kit that builds into a slider crank mechanism and various cam and follower mechanisms.

Students assemble the mechanism onto the optional TASK frame (available separately).

For crank experiments, they attach a slider assembly and a protractor disc to the frame. They then attach the crank to the protractor disc and a connecting rod from the crank to the slider.

For cam experiments, students choose a cam and suitable follower. They attach the slider assembly and the protractor disc to the frame. They then attach the cam to the protractor disc and follower to the slider. For project work, students can produce their own cams.

To perform experiments, students set the protractor to zero and use a linear scale to note the slider position. They then rotate the protractor disc in 10° increments, noting the linear scale readings, until the protractor has rotated 360°.

Students work individually or in groups of up to three. The colour of parts indicates their function. For example, yellow parts are mainly stationary or passive, and white parts are instrumentation. Red parts may move or contain energy.

The kit comes with Assembly Instructions. A Teacher Guide provides experiment methods, information, references and tips. A Student Workbook guides students through experiments.

Standard Features

- Supplied with comprehensive User Guides (Assembly Instructions, Student Workbook and Teacher Guide)
- Two-year warranty
- Manufactured in accordance with the latest European Union directives

Essential Ancillaries

- Mini Frame (MF)

Experiments

- Demonstration of a pear cam with roller follower and flat face follower
- Demonstration of an offset circular cam with roller follower and flat face follower
- Demonstration of a spiral cam with knife edge follower
- Demonstration of a slider crank mechanism
- Investigation of dwell period, simple harmonic motion and second harmonic

Operating Conditions

Operating environment:
Laboratory environment

Storage temperature range:
–25°C to +55°C (when packed for transport)

Operating temperature range:
+5°C to +40°C

Operating relative humidity range:
80% at temperatures < 31°C decreasing linearly to 50% at 40°C

Specifications

Packed Dimensions and Weight: 0.0034 m^3 and 1.68 kg

Cams:
- Offset circular
- Spiral
- Pear

Followers:
- Roller
- Flat face
- Knife edge

Main parts:
- Slider, slider cradle, slider sight, slider scale
- Protractor disc, follower brackets and followers
- Con rod and crank
- All necessary nuts and bolts, spacers, washers, bushes