# **Product Information Sheet**

## Mechanisms Trainer





Our STEM learning packages have been designed to provide practical real world problem solving tasks and activities within the classroom or lab environment.

These activities will provide an engaging approach that helps instructors show contextualized linkages between Science, Technology, Engineering, and Mathematics.

Students will have access to hands on learning opportunities within our optional cloud-based STEM curriculum software packages. This easy to use software also contains theory presentations, virtual investigations, and support materials to underpin the practical tasks.

The Mechanisms Trainer offers a classroom based resource for practical investigation of a variety of fundamental mechanical systems. The trainer allows users to investigate gears, pulleys, levers, cams, belt drives, and inclined planes.

This trainer includes a curriculum CD containing theory and practical learning tasks, as well as tutor support materials.

## **Typical Practical Activities Include:**

- Identify the different types of motion found in mechanical systems
- Demonstrate the effect of using an idler gear in a simple gear train
- Determine compound gear train ratios and speed
- Identify the purpose of belt drives
- Demonstrate the relationship between distance and effort for a pulley system
- Measure effort and movement for first, second, and third class levers

- Demonstrate how the profile of a cam affects the output of the cam follower
- Calculate the mechanical advantage provided by an inclined plane
- Identify how lubricants, bushes, and bearings are used to reduce friction

#### **Items Included:**

- Mechanisms Trainer
- Power Supply
- Accessory Kit
- Curriculum CD

### **Other Items Required:**

- LJ Create Engineering or Technology Content (Optional)
- Computer with DVD Drive

### **General Information:**

Power Requirements: 110 - 240V 50-60Hz Packed Volume: Approx. 0.021 m<sup>3</sup> Packed Weight: Approx. 21.6 kg

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