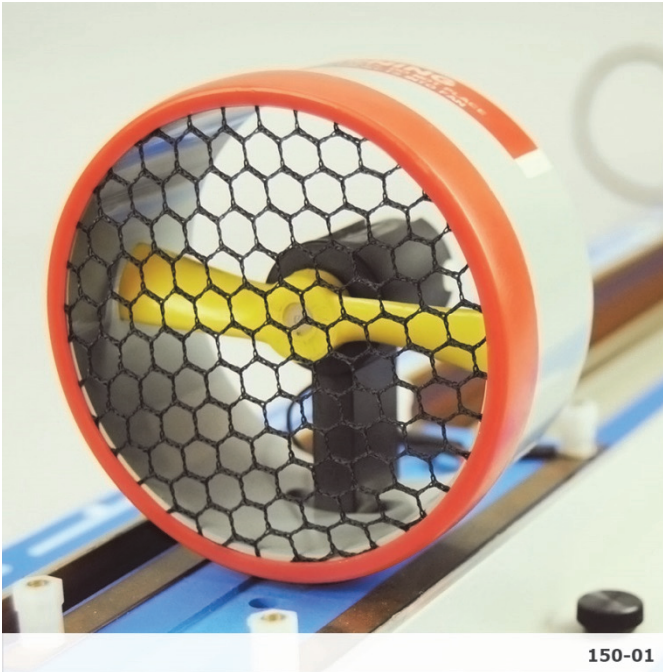


## Product Information Sheet

### Research and Design Teaching Set



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.

The Research and Design package offers practical learning opportunities, to investigate the role science and technology plays in research and design. Learners develop an understanding of how STEM impacts our world, through the context of a modern mass transit system based upon a maglev train simulation.

This trainer includes access to digital curriculum materials including theory and practical learning tasks, as well as tutor support resources.

The trainer can also be used in conjunction with our optional cloud-based STEM software packages, which offer online practical tasks as well as interactive theory presentations, investigations, and assessments, which link directly to the practical activities carried out using this resource.

#### Typical Practical Activities Include:

- Identify transportation issues as problems that a Research and Design project might attempt to solve
- Extract information to create a formal list of specifications for a Design Brief
- Investigate and Research Transportation technologies
- Use the Internet to research information about the fuels used in Propulsion Systems

- Use a virtual laboratory to test materials for use in making electrical contacts
- Measure the force created by a model vehicle crashing
- Design a buffer to be used with a model Maglev vehicle
- Discover how computers are used to control automatic
- Reduce the fares paid by passengers using a Maglev transportation system

#### Items Included:

- Maglev Track
- 1 Maglev Vehicle (2 Ducted Fan Units)
- Maglev Control Interface Unit
- Maglev Connection Lead and Power Supply Set
- Buffer Design Consumable Pack
- Maglev Control Simulation Software
- Parallel to USB Adapter
- Curriculum in Digital Format

#### Other Items Required:

- Computer with Spare USB Port

#### General Information:

Power Requirements: 110 – 240V 50-60Hz  
Maglev Track Dimensions: 1600 x 120 x 185 mm (W x H x D)  
Packed Volume: Approx. 0.126 m<sup>3</sup>  
Packed Weight: Approx. 13.7 kg

**Order Code: 150-00**

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For more information visit [www.ljcreate.com](http://www.ljcreate.com)