

Equipment and technical data

PHYWE DigiCart:

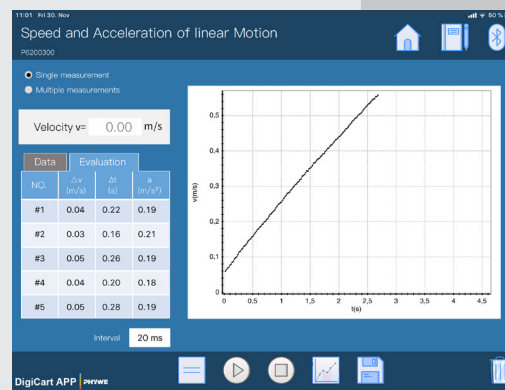
- Communication via modern Bluetooth technology
- Rechargeable Lithium-Ion-Accu
- Integrated interface
- 4 integrated sensors
- DigiCart blue and DigiCart white are technologically identical

	Force sensor	Speed sensor	Acceleration sensor	Position sensor
Measuring ranges	10N/50N	3m/s	16g	-
Resolution	0.01N/0.03N	0.001 m/s	0.01g	0.1mm
Sampling rate	1000Hz/5000Hz	800Hz	500Hz	800Hz

Contents of the PHYWE DigiCart sets:

Artikel	Expert Set	Basic Set
DigiCart white*	✓	✓
DigiCart blue*	✓	✓
1.2 m track	✓	✓
Height adjustable holder	✓	✓
Rubber band holder incl. rubber bands	✓	✓
Deflection pulley	✓	✓
Electronic balance	✓	✓
Accessory set A	✓	✓
Accessory set B	✓	-
Electromagnetic starter	✓	-
Vibration motor	✓	-
Magnetic buffer	✓	-
DigiCartAPP	✓	✓

* Technically identical, individual colors for didactical purposes only.



Products

DigiCart Expert Set

2 DigiCarts (white and blue) and track with complete accessories, for 12 experiments

DigiCart Expert Set

12940-88

DigiCart Basic Set

1 DigiCart (white) and track inclusive basic accessories, for 8 experiments

DigiCart Basic Set

12940-77

DigiCart Expert Set (without Carts)

12940-20

DigiCart Basic Set (without Carts)

12940-10

DigiCart, white

12940-00

DigiCart, blue

12940-01

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Cobra | PHYWE
DigiCart Expert Set

PHYWE
excellence in science

Dynamics / Kinetics digital measurement – Simple – quick – flexible – intuitive!



Physics

Mechanics

Dynamics/
Kinetics

DigiCart Expert Set and DigiCartAPP – The whole world of dynamics and kinetics in one set.

- The DigiCart Expert Set is a mobile, flexible physics lab
- Built-in force, speed, acceleration and position sensor in the wireless DigiCart 4-in-1
- Low friction rollers for excellent measurement results
- Digital data acquisition in the **DigiCartAPP** | PHYWE
- Wireless data transfer to tablets **Bluetooth**
- Suitable for **Android** and **iOS**

Benefits

- Ideal for student experiments
- Quick experimental set-up
- Simple implementation
- 12 experiments on dynamics / kinetics possible
- Integrated sensors, no light barriers required

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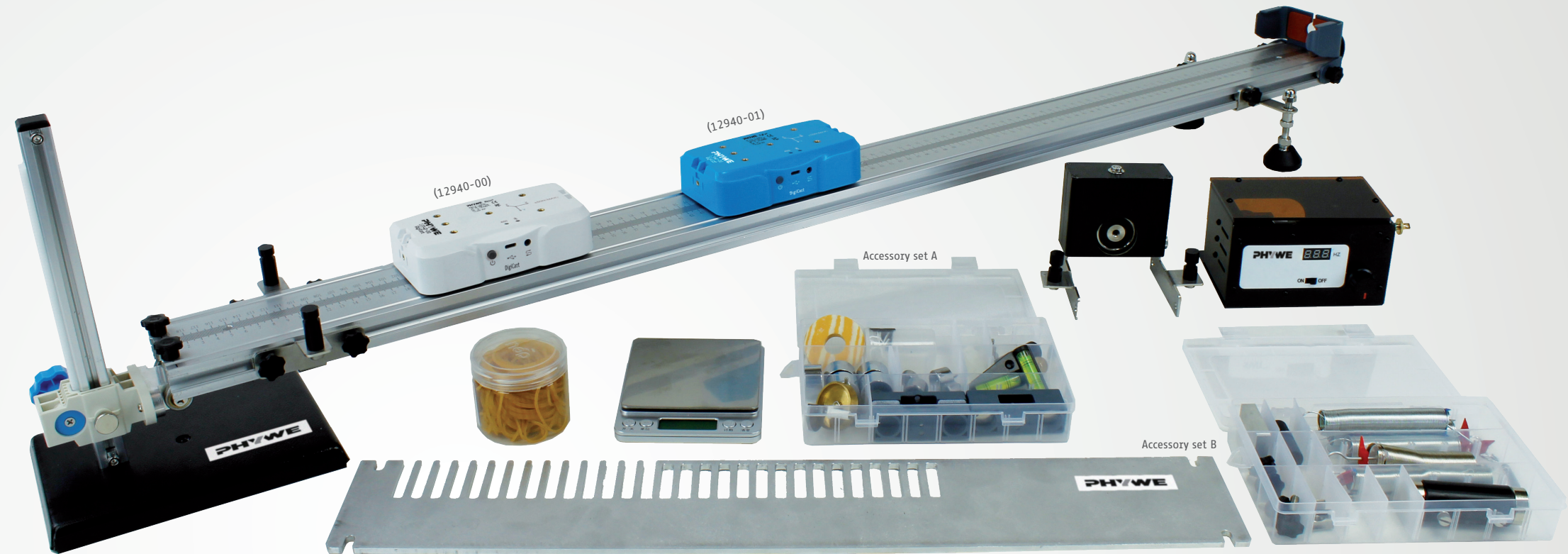
Innovative modern physics lessons according to the syllabus – with the ultimate all-in-one DigiCart sets from PHYWE

PHYWE
excellence in science

Cobra | PHYWE for 12 experiments DigiCart Expert Set

DigiCart Expert Set – The ultimate all-in-one set for innovative dynamics and kinetics lessons

- Two DigiCarts, track and complete accessories
- All experiments of the Basic set can be performed as well as others such as:
 - Elastic and inelastic collision with 2 DigiCarts
 - Functionality of electromagnetic brakes
 - Harmonic oscillations
 - Forced oscillations and resonance
- A total of 12 experiments on dynamics and kinetics from the physics syllabus



Cobra | PHYWE for 8 experiments DigiCart Basic Set

DigiCart Basic Set – For an introduction to the themes of dynamics and kinetics

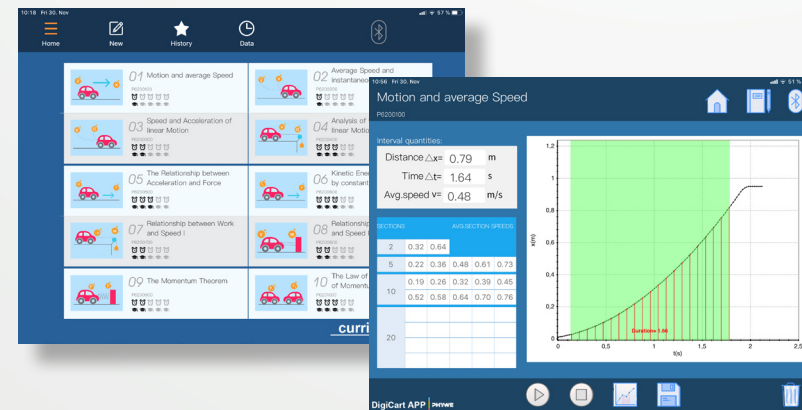
- One DigiCart, track and everything necessary to start experimenting
- 8 experiments to the themes dynamics and kinetics
- Introduction to the Laws of Newton
- Basics to speed, impulse, force, acceleration and energy



DigiCartAPP | PHYWE

DigiCartAPP – Mobile digital measurement, recording, evaluation and direct viewing

- All 12 experiments at a glance
- Experimental descriptions included in the APP
- Connect DigiCart via Bluetooth and begin experimenting
- Evaluate measurements directly in the APP



Syllabus themes dynamics / kinetics

		Expert Set	Basic Set
Linear Motion	1. Motion and average speed	✓	✓
	2. Average Speed and instantaneous Speed	✓	✓
	3. Speed and Acceleration of linear Motion	✓	✓
	4. Analysis of Uniform linear Motion	✓	✓
Force and energy	5. The Relationship between Acceleration and Force	✓	✓
	6. Kinetic Energy of doing Work by constant Force	✓	✓
	7. Relationship between Work and Speed I	✓	✓
	8. Relationship between Work and Speed II	✓	-
Impulse	9. The Momentum Theorem	✓	✓
	10. The Law of Conservation of Momentum	✓	-
Magnetism / Dynamics	11. Magnetic Damping	✓	-
Oscillations	12. Forced Vibration and Resonance	✓	-

Free download of the DigiCart APP:



Available from March 2019