

Equipment and technical data

PHYWE DigiCart:

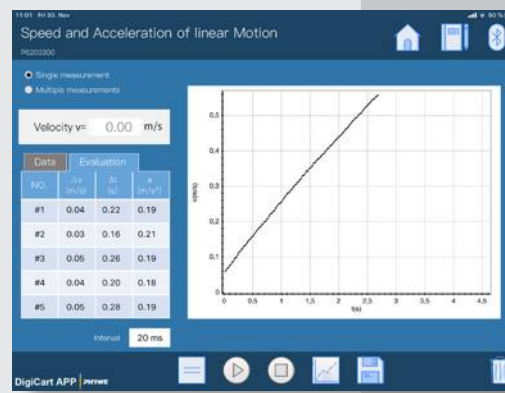
- Communication via modern Bluetooth technology
- Rechargeable Lithium-Ion-Accu
- Integrated interface
- 4 integrated sensors
- DigiCart blue and DigiCart white are technologically identical

| | 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!



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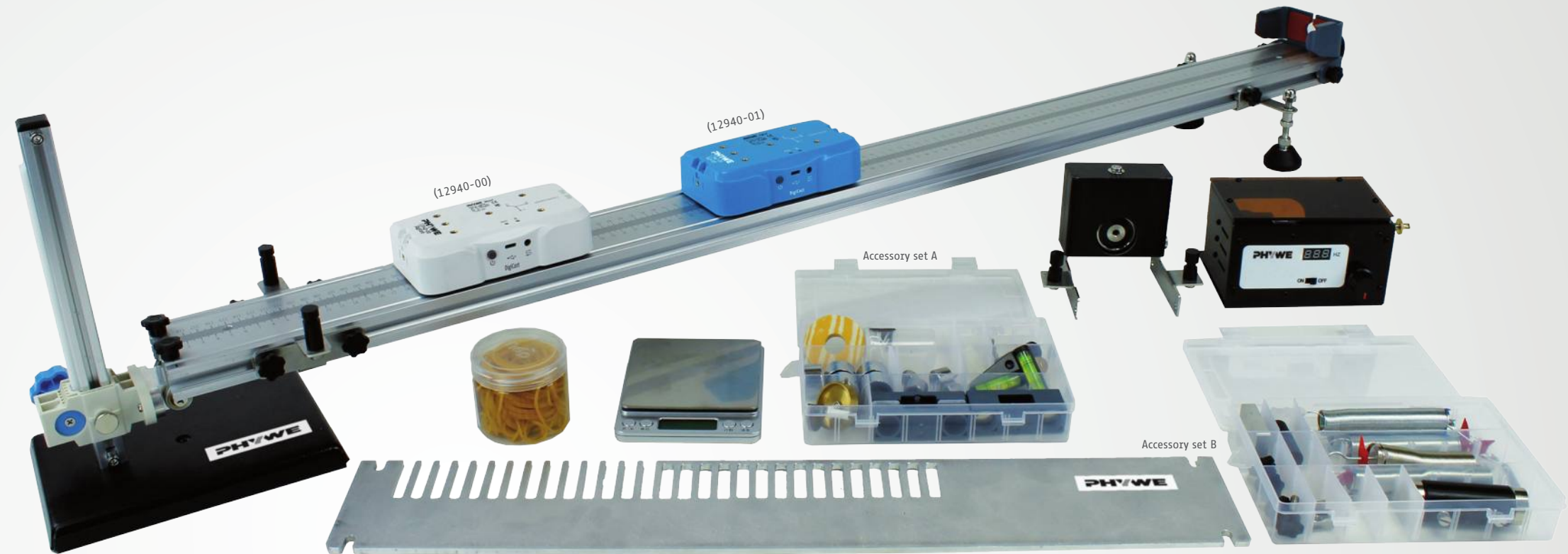
Innovative modern physics lessons according to the syllabus – with the ultimate all-in-one DigiCart sets from PHYWE

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

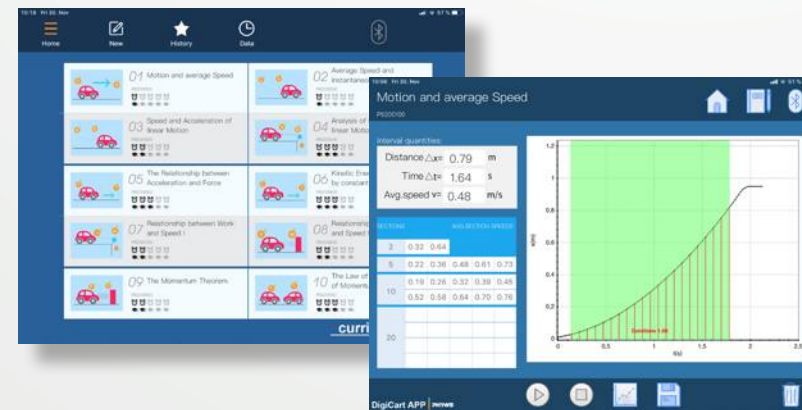
- One DigiCart, track and everything necessary to start experimenting
- 8 experiments to the themes dynamics and kinetics
- Introduction to the Laws of Newton
- Basics to speed, impulse, force, acceleration and energy



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