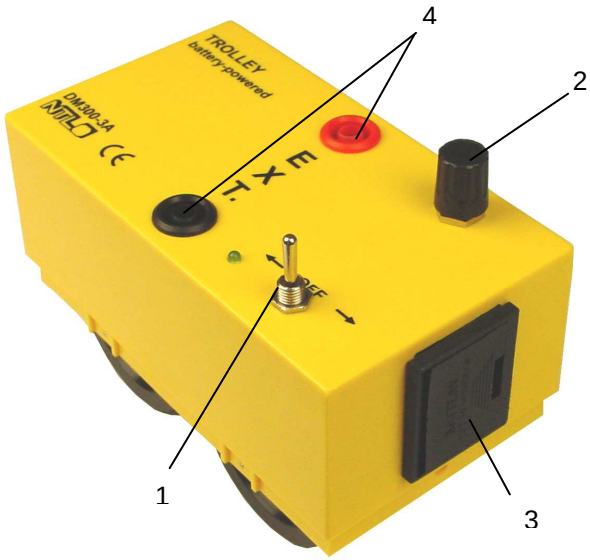
DM300-3A Tolley with motor

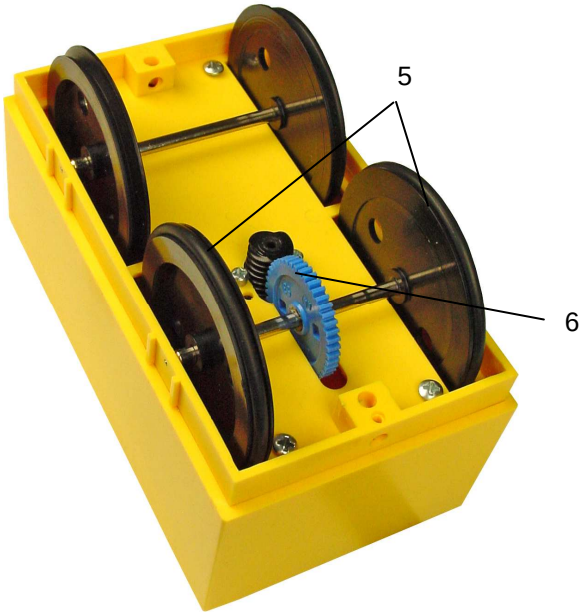
The trolley with motor is used for uniform movements at experiments in kinematics and dynamics



1. Three different settings can be chosen at the **switch**: ←, OFF and →. When the setting is in OFF position the trolley is switched off. Switching to one of the positions ← or → the trolley gets switched on. The arrows are indicating the directions the trolley will move.

2. By means of the **adjusting knob** the speed of the trolley can be regulated continuously. This option works independent of the movement direction.

3. The DC-motor in the trolley is powered by means of a 9V battery (6LR61 type) which is located in the lateral **battery case**.
   You can open the case by pulling at the small notch (picture) and change the battery.



4. The trolley can be powered by means of an **external power** supply also. This option is mainly used for conversion of energy experiments (e.g. solar cell or fuel cell) or none-uniform movement experiments.
   When powering the trolley using an external power supply, continuous speed adjustment and the switch are out of order. In that case you must use voltages from 0 to 3 V only. The direction of movement depends on the polarity of DC-voltage chosen. (You do not have to remove the battery when powering the trolley by an external power supply)

5. The **drive wheels** are coated with rubber rings to ensure smooth movement and prevent from wheelspin.

6. A fixed **spiral** at the DC-motor powers the **gear**.
   This gear is mounted at the axis of the drive wheels. For technical purpose the gear must not be positioned in the centre of the spiral!