

NON-UNIFORM MOTION, UP AND DOWNHILL

MED 04.07



Material

Item-no.	Qty.	Description
DS600-10	1	Assembly for lab table "NTL"
DS101-4B	1	Universal rail with scale and holes, L=1000 mm
DS101-2A	1	Flexible track, acrylic, L=1000 mm
DS102-2G	2	Clamp saddle
P7240-2B	1	Support rod, T-shaped
DM300-3A	1	Trolley with variable speed

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Purpose

To demonstrate another example of a non-uniform linear movement.

Preparation - Experiment 1

Place the assembly on a stable surface and fix the two clamp saddles to the profile as shown on the image. Put the flexible track on the universal rail; afterwards fix the central support rods of the flexible track with the plastics screws on the lower threads.

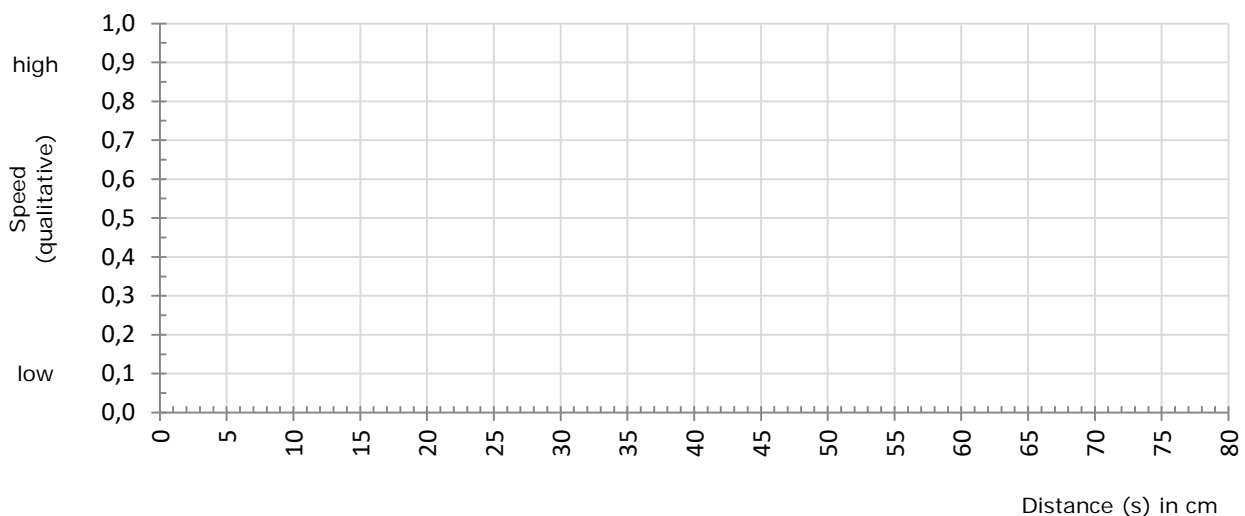
The two support rods are inserted from the bottom into the outer holes and fixed there. Place the trolley with variable speed on the left end of the track.



Experiment 1

We set the speed control approximately in the middle and switch the car on. The speed during the entire ride is observed.

Try to make a diagram below.



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Preparation – Experiment 2

Same setup as in the 1st experiment.

Raise the flexible track in the middle and place the T-shaped support rod between the flexible track and the universal rail as shown on the image below.

Place the trolley with variable speed on the left end of the track.



Experiment 2

Without changing the speed of the trolley turn it on again.

The speed during the entire ride is observed.

Try to make a diagram below.

