

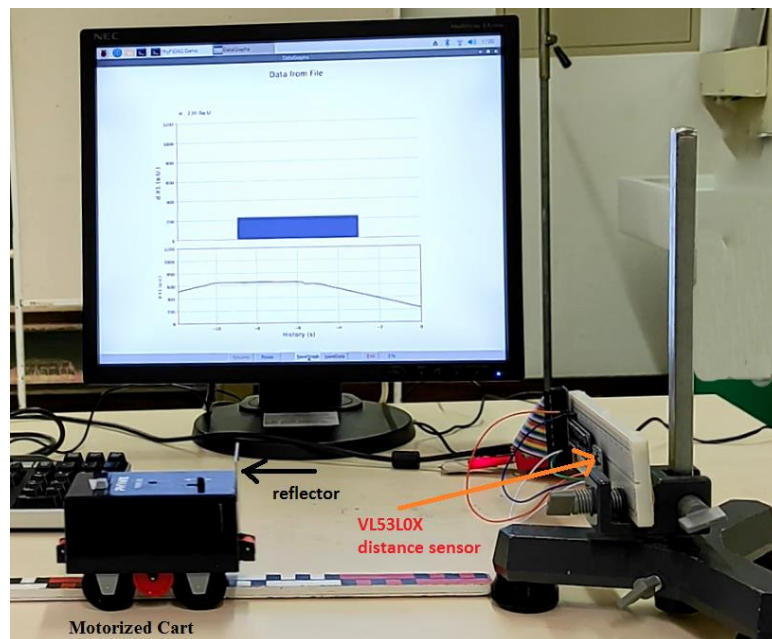
Position, Distance, Displacement

PhyPiDAQ
Digital Measurement System Based on
Raspberry Pi



Objectives:

- Measure the position of an object by using the Time-of-Flight VL53L0X Motion Sensor connected at the Raspberry Pi;
- Use various graphical capabilities of the PhyPiDAQ-Software to display motion as a change of position in real-time and to gain an understanding of the difference between position, distance, and displacement;
- Employ spreadsheets like LibreOffice or Excel to process the measurements stored in .csv files to analyse different motions;



Experimental setup with the VL53L0X Distance Sensor to visualise and record the position-time graphs of a Variable Speed Motorized Cart with three-stage switch for forward, off, and reverse motion.

Procedure:

-On the Graphical Interface of the PhyPiDAQ Software one has to configure the experiment according to the [VL53L0x_position_vs_time.daq](#)
-The Analog-to-digital convertor has to be configured according to the [VL53LxConfig.yaml](#)

Measurements:

