



AGiLens



Rotational movement

Angular speed

Measure centrifugal forces

Moment of inertia

Oscillating movement

Pendulum movement

Free oscillation spring

Forced oscillation spring

Damped oscillation spring

Rectilinear movement

Free fall

Air cushion bench

Measure of the speed / acceleration
on an axis

Collision laws

Inclined plane



Accelerometer / Gyroscope Itac for
education



DPM 100 010

This product is composed by an accelerometer and a gyroscope. All the manipulations can be done with wireless technology (Bluetooth connection). By combining those elements, the DPM 100 010 product gives you the easiest way to teach all kind of mechanical experiments.

Technical datasheet :

- ✓ A three axes accelerometer / gyroscope
- ✓ Wireless technology (Bluetooth)
- ✓ Battery : Lithium / Autonomy : 8 hours
- ✓ Acceleration : scale of 2 to 8g / precision 18 ou 72 mg ($1g = 9.81m.s^{-2}$)
- ✓ Rotationnal speed : scale of 2000 degree per seconde / accuracy 0.07 degree per seconde
- ✓ Rechargeable with USB port
- ✓ Usable with or without a Bluetooth connection
- ✓ Exportable data to CSV, Regressi, BMP.
- ✓ Simoutaneous and multiple connections (up to 6)

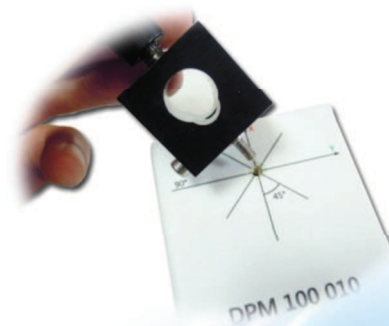


Composed by :

- ✓ AGILENS housing
- ✓ USB cable
- ✓ Bluetooth receiver
- ✓ 2 hooks
- ✓ Storage box
- ✓ User instruction (delivered with a flash drive)
- ✓ Software delivered with a flash drive

Product accessory :

- ✓ 12V USB charger – DPM 100 060
- ✓ Foam cylinder – DPM 100 030
- ✓ Foam ball – DPM 100 020
- ✓ Pendulum accessory attachment – DPM 100 050





AGILENS is the perfect product for the following experiments :

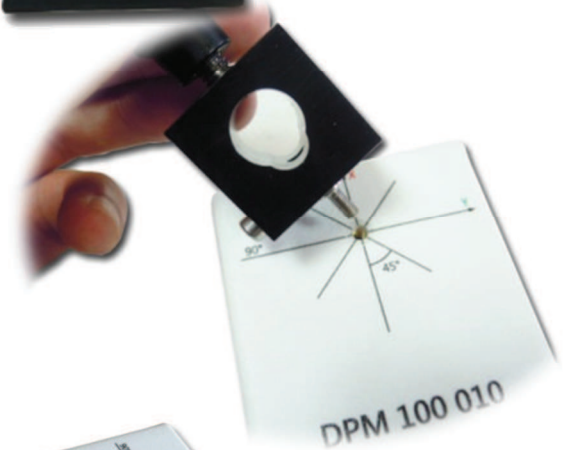
- Free fall
- Free oscillation
- Pendulum movement,
- Circular acceleration,
- Inclined plane
- Forced oscillation
- Centrifugal force



Wireless technology
10-m range

Due to the silkscreen printing and the pendulum accessory, you can easily fix all sort of rod (6 to 10mm) with the inclination you want.

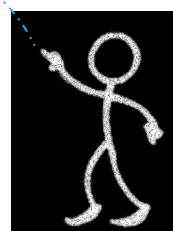
The hooks can be used at the end of a spring or between two springs.



With the different foam shapes, you will experiment your tests in all sort of configurations : throwing, free fall, rotation ...



Teaching becomes a game !

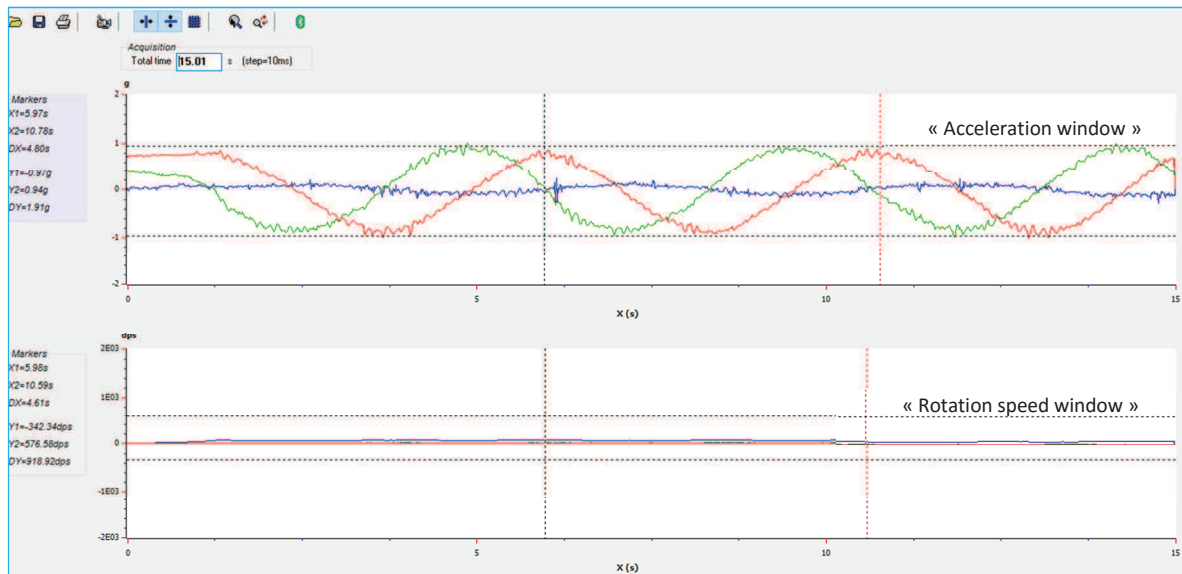




DPM 100 010

The DPM 100 010 product comes with a free software included in the flash drive. All the softwares developed by Didalab physical department are free access.

Softwares are developed by our company. Our goal is to create the easiest and more efficient software to use for your students. You can also download the software from our web site : www.didalab.fr



The « acceleration window » shows the effective acceleration. The unit is in « g » ($1g = 9.81m.s^{-2}$). This measurement is on the three sensors axis.

The « Rotation speed window » shows the effective rotation speed. The unit is in « dps » which means (degree per second). This measurement is on the three sensors axis.

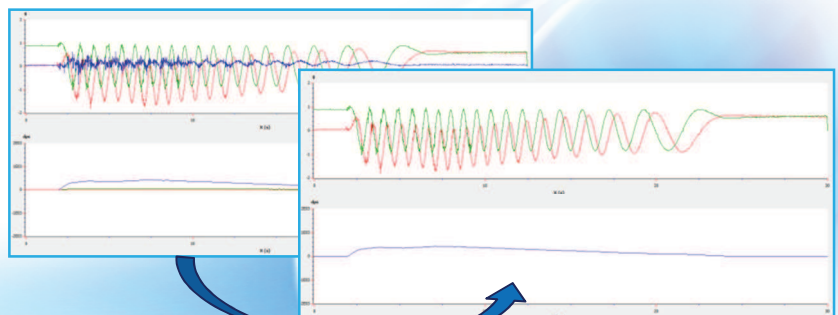


Curve display :

With a click on the acceleration or rotational speed window, you can select which axis you want to display. The DPM 100 010 records the data of the three axis, lets choose which one you want to use.



Acquisition of a moving bicycle wheel





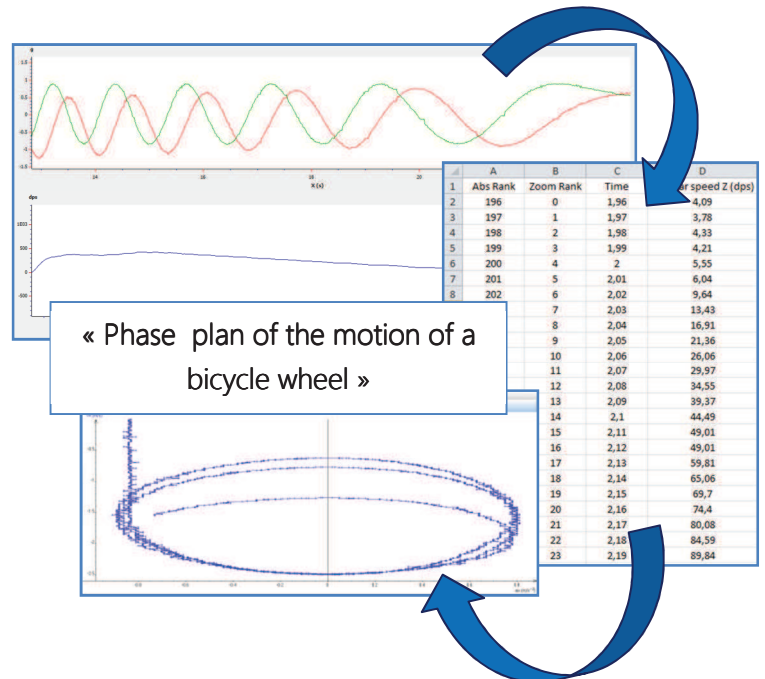
The AGILENS software allows :

- Easy Bluetooth pairing by wired connection.
- Data acquisition on the x, y, z axis in real time (100Hz).
- Date acquisition on the x, y, z axis in real time (100Hz).
- Memory configuration for sampling adjustment.
- Memory acquisition without a bluetooth connection.
- Memory acquisition with a bluetooth connection
- Synchronized acquisition with many accelerometers (up to 6).
- Exportable data in CSV, BMP, REGRESSI.

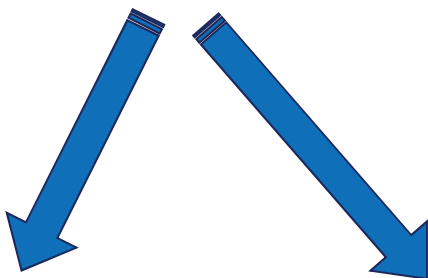


Zoom and exportation results :

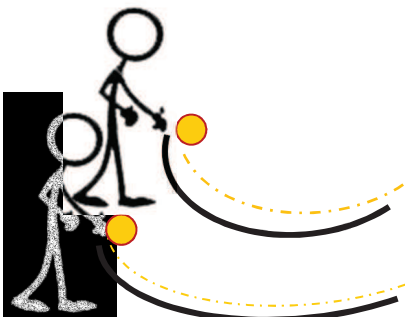
In addition to select the axes curves, you can also zoom in your suitable area and you have the possibility to extract the data which have been zoomed.



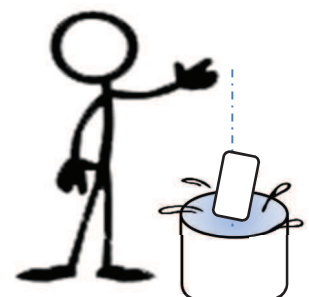
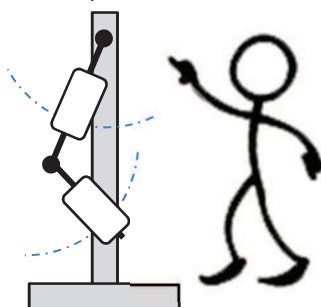
Many synchronized accelerometers



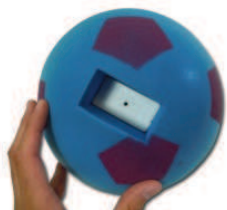
Same experiment
Different parameters



Multiple parameters
experiment



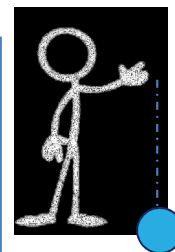
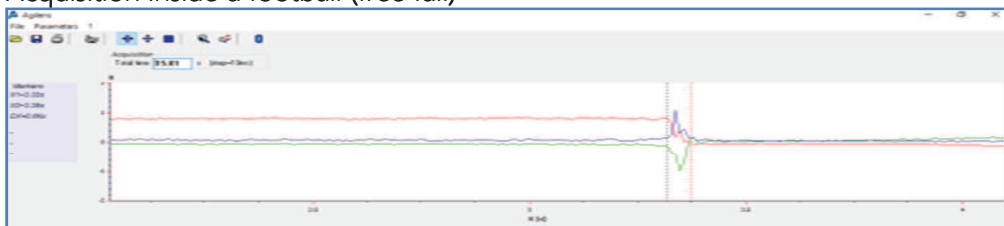
No Bluetooth parameter
(You will need a protection)



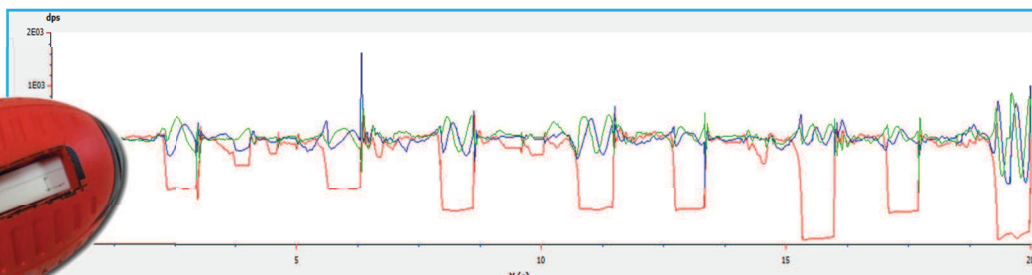
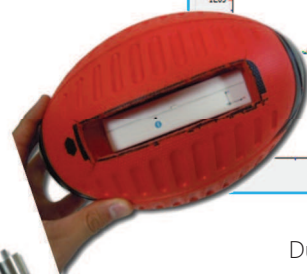
Free fall and throw



Acquisition inside a football (free fall)



Acquisition inside a rugby ball (8 throws)



During this experiments, 8 throws have been done. These curves measure the rotation speed of the three axis.

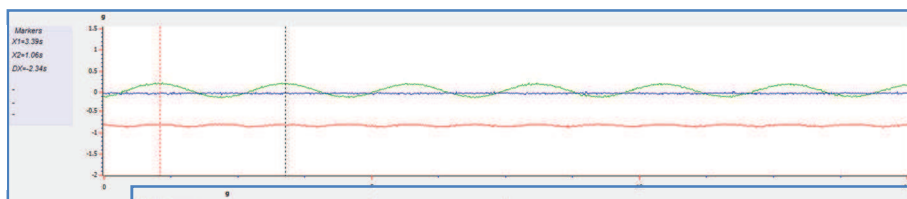
Passes are good when you don't have the rotation in the « Y » and « Z » axis (the ball turns on itself in the « X » axis.).



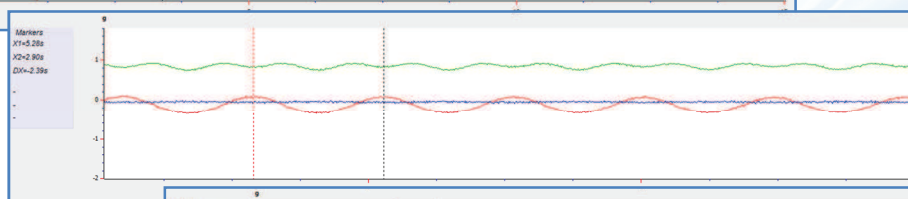
Oscillating movement

The period for a pendulum system can be determined thanks to our product.

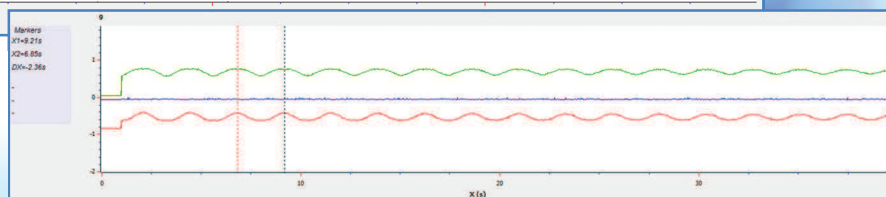
Accelerometer with the « X » axis positionned on the pendulum rod



Accelerometer with the « Y » axis positionned on the pendulum rod



Accelerometer with the « X » axis positionned at 45° on the pendulum rod



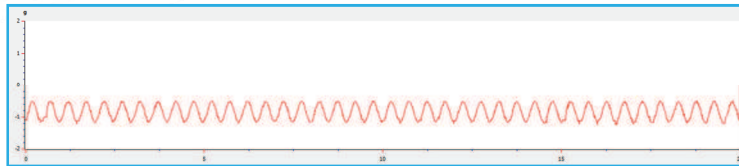


Oscillating movement

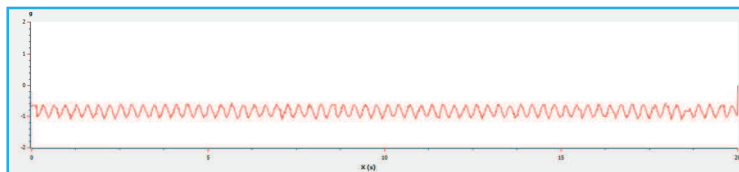


Forced oscillation spring :

By positioning AGILENS on the forced oscillation system, you can study the oscillation duration according to the frequency you have chosen.



Forced oscillation linked to AGILENS (frequency 2Hz)



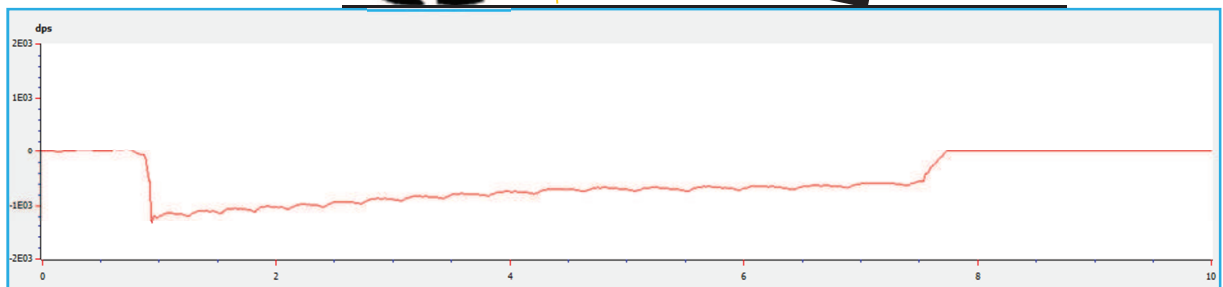
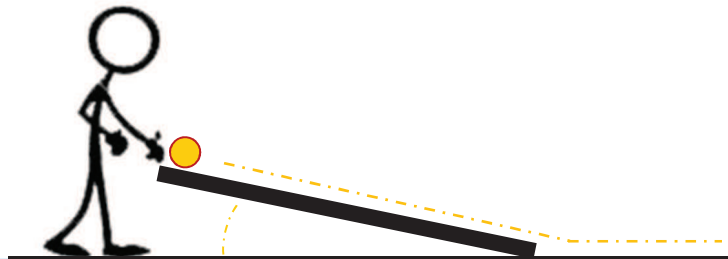
Forced oscillation linked to AGILENS (frequency 3Hz)



Rectilinear movement



Inclined plane :





Contact

Orders and informations



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