Supplementary material to “The harmonic driven pendulum as a teaching example of integration of laboratory and computation “

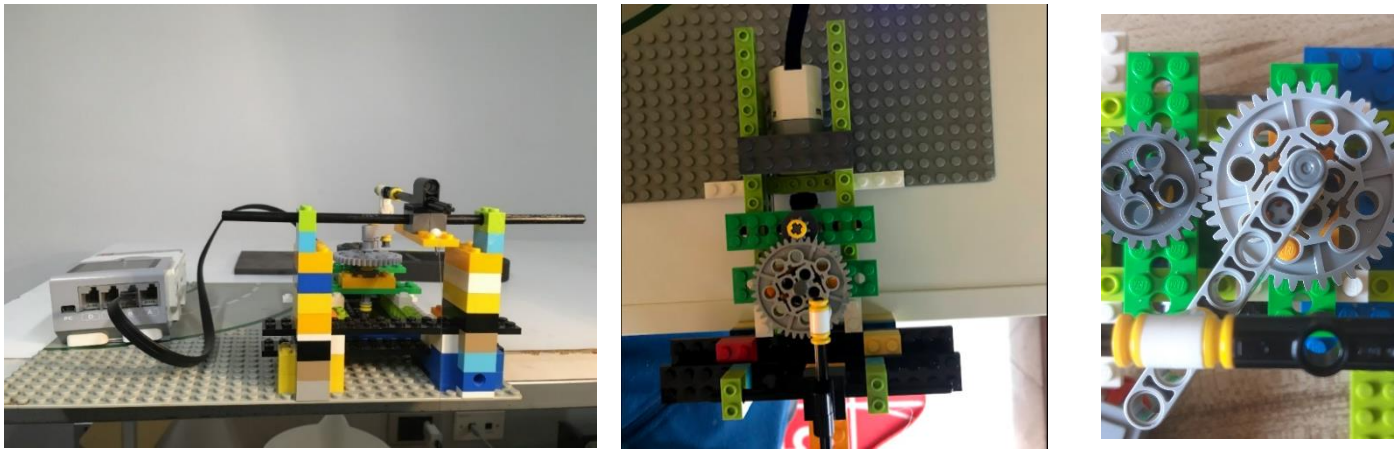
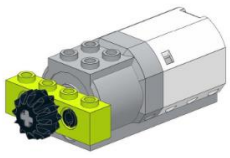


Figure 1 From left to right: Different view of apparatus and enlargement of a detail of the mechanism.

To realize the apparatus are needed Lego bricks available in various common kits. A first prototype was realised by using the motor of LEGO® Education WeDo 2.0 Kit, then, if available, it is possible to use the better servo motor in the kit LEGO® MINDSTORMS®.

The main components of the apparatus are the following:

	Cross axles of varius length
	WeDo motor
	Lego Mindstorms medium servo motor used in the final project

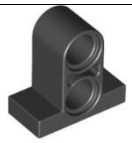
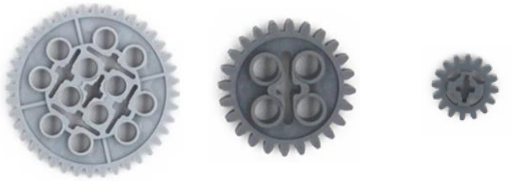
	LEGO Mindstorms EV3 control unit (Intelligent Brick) or the simpler version in the WeDo Kit
	T-BEAM W. PLATE 1X2 W. TUBE
	LEGO® Gear 40 tooth (the biggest) and other with less tooth
	Beams of various lengths

Figure 2 List of main LEGO elements

A tripod is also required to take videos with the smartphone.