

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

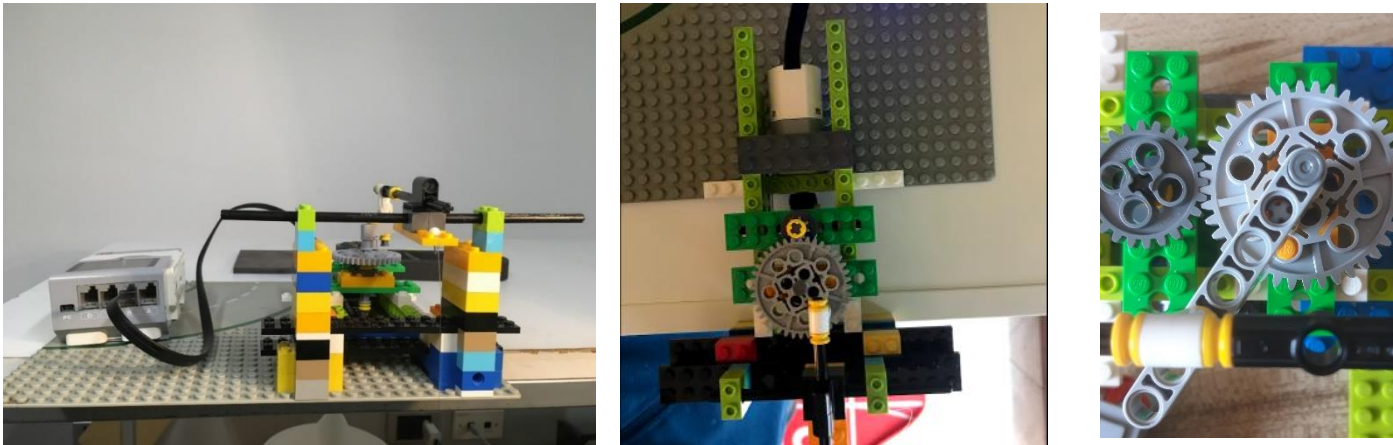

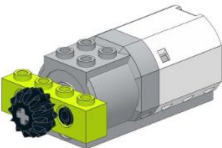



Figure 1 From left to right: Different view of apparatus and enlargement of a detail of the mechanism.

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 component of the apparaturs are the following:

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



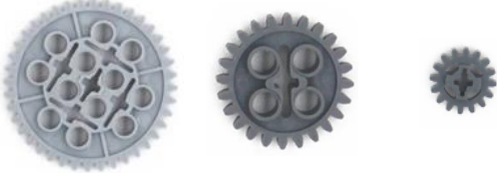

	<p>LEGO Mindstorms EV3 control unit (Intelligent Brick) or the simpler version in the WeDo Kit</p>
	<p>T-BEAM W. PLATE 1X2 W. TUBE</p>
	<p>LEGO® Gear 40 tooth (the biggest) and other with less tooth</p>
	<p>Beams of various length</p>

Figure 2 List of main LEGO elements