

Mechanics Module 2 – Equipment List and Setup

What	Qty	Activities
2.2 meter Track, Pasco ME-9452	1	9, 11, 14, 15
End Stop, Pasco ME-9808	1	9, 11, 14, 15
Collision Cart, Pasco ME-9454	1	9, 11, 15
Cart pin	1	14
6-inch string	1	14
Fan Accessory, Pasco ME-9491	1	14, 15
AA-Batteries	1 pack of 4	14, 15
Small screwdriver, for prying out batteries	1	14, 15
Motion Sensor II, Pasco CI-6742	1	10, 11, 14, 15
Economy Force Sensor, Pasco CI-6746, including a screw and stop to attach to the sensor part and a long screw to attach to a Collision Cart	1	12-15
1 N spring scale	1	14
DAQ board, homemade	1	10 -15
Large Table Clamp, Pasco ME-9472	1	12, 13
tape measure	1	12, 13
Rod mounted vertically on the Table Clamp	1	12, 13
#24 Rubber Bands (4" long, 1/8" wide, 1/32" thick)	4	12, 13
Set of risers, homemade <ul style="list-style-type: none"> 4 x 1.000 cm thick blocks, ~ 3" x 6" 4 x 0.500 cm thick blocks, ~ 3" x 6" 4 x 0.100 cm thick blocks, ~ 3" x 6" 	1	9, 11
Deck of cards, thickness written on the box	1	9, 11
1" cube of wood, homemade	1	9
Mass (1/2-size cart mass or a 200g disc mass)	2	14
Level	1	9, 11, 14, 15

Note: an Instructor will pick up the Level before the Practical and return it after.

Setup Notes:

The feet brackets should support the Track at about 60 cm and 150 cm as measured on the Track's scale. They should be mounted so their thumbscrews are on the same side of the Track as the scale.

The Track should be set up with the end with the smallest reading on the scale closest to the wall. The Track should be leveled and the feet locked.

The Force Sensor should be mounted on the vertical rod attached to the Table Clamp. The hook should be attached to the sensor part. The stop will also be needed for this Module.

The End Stop is mounted on the end of the Track opposite the wall.

Activity 10 will have the students sliding the wood cube down the Track. Thus the upper surface between the channels has to be reasonably clean and smooth.

DMH – July/07 – Revised Dec.10, 2009 by Jason Harlow and Lilian Leung.