Experimental Competition
27 April 2010

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		ve generator.	Record the measure		the data table.
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$f_{RO} =$; <i>Q</i> =	

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Exp. I-B \ Resonance frequency versus the external force.				
(1	1) Measure and record the measured data z_0 in the data table.			
	$z_0 =$			

- (2) Determine the position z of the top plane of the N-pole of M_C . Calculate the nominal distance d by defining $d = z_0 z$. Record z and d in the data table.
- (3) Determine the resonance frequency f_R for the distance d by tuning the frequency of the sine wave generator until the maximum amplitude is reached. Record the determined resonance frequency f_R in the data table.
- (4) Change the vertical position of the magnet M_C and repeat the steps (2) and (3) for a number of measurements of different distance d and the corresponding resonance frequency f_R .

	J J I C			
Z	d	f_R	Δf_R	$ln(\Delta f_R)$

- (5) Plot a graph of f_R as a function of distance d using a graph paper.
- (6) Define $\Delta f_R = f_R f_{RO}$, and plot $\ln(\Delta f_R)$ as a function of d using another graph paper.

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		; $z_{box} =$		
			d observe the varia	
	$\begin{bmatrix} y \end{bmatrix}$		<u>J</u>	
0	,	322		
		r corresponding resonance	r corresponding resonance frequencies	by f_R of the reed to find the position of M_B . Record the mean corresponding resonance frequencies f_R in the data table.

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	of the magnets M_A and M_B from the top surface Exp. I-B. Write down the values of d_A and d_B of d_B is $d_B = d_B$
etermine the depths d_A and d_B black box using the results in swer sheet.	Exp. I-B. Write down the values of d_A and d_B or
etermine the depths d_A and d_B black box using the results in swer sheet.	Exp. I-B. Write down the values of d_A and d_B or
e black box using the results in swer sheet.	Exp. I-B. Write down the values of d_A and d_B or
e black box using the results in swer sheet.	Exp. I-B. Write down the values of d_A and d_B or
swer sheet.	
	; $d_B =$
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