

Student Name    Mohammad Abubakar Atiq

ID                F2022031002

Instructor        Hafiz Osaid

Batch/Program    BSIE

Lab 02            To verify the validity of hooke's law and determine the spring constant

Apparatus                Hookes Law Apparatus, UMT-29663

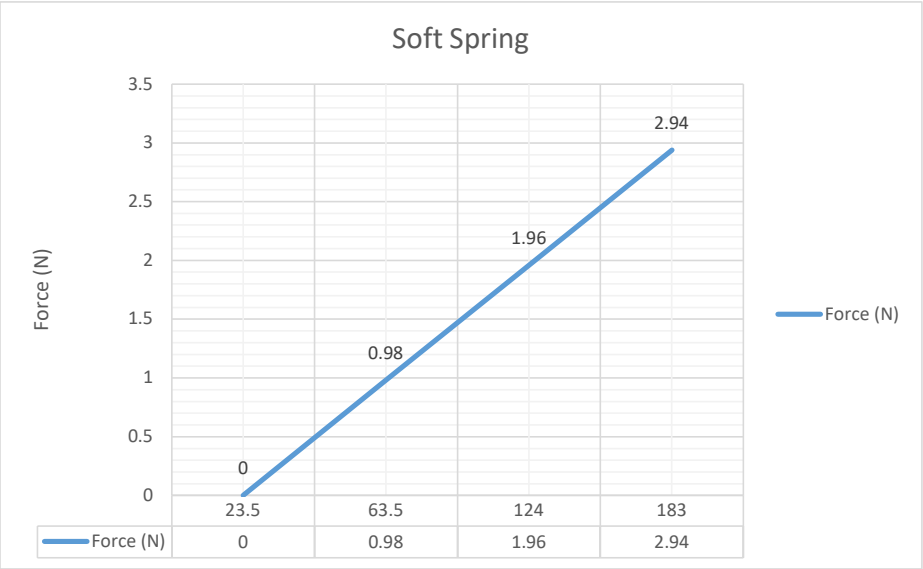
Material

3 springs, hardness different

wire thickness is inversely proportional to hardness of the spring

Soft Spring 1:

Mass (g)	Mass (Kg)	Force (N)	Deflection 1 of loading (mm)	Deflection 2 of unloading (mm)	Displacement Mean
0	0	0	23	24	23.5
100	0.1	0.98	62	65	63.5
200	0.2	1.96	123	125	124
300	0.3	2.94	183	183	183



Change in Length (mm)	Spring Constant (k) (N/mm)	Spring Constant (k) (N/m) (Experimental)	Spring Constant (k) (N/m) (Theoretical)
1	0.00	0.00	0.00
3	0.02	15.43	15.81
2	0.02	15.81	15.93
0	0.02	16.07	16.07