

Applied force (N)	X displacement (mm)	Angle (°)	Stress (Pa)	Moment (N m)	Stiffness (N m rad <sup>-1</sup> )
1	0.738	2.299308607	$9.86 \times 10^6$	0.02539	0.632685783
2	1.48	4.611079591	$1.97 \times 10^7$	0.05078	0.630975822
3	2.21	6.885463443	$2.96 \times 10^7$	0.07617	0.633830916
4	2.95	9.191003239	$3.94 \times 10^7$	0.10156	0.633114723
5	3.69	11.49654303	$4.93 \times 10^7$	0.12695	0.632685783
6	4.43	<u>13.80208283</u>	$5.91 \times 10^7$	0.15234	0.632400146
7	5.166	16.09516025	$6.90 \times 10^7$	0.17773	0.632685783
8	5.904	18.39446886	$7.86 \times 10^7$	0.20312	0.632685783
9	6.642	20.69377746	$8.87 \times 10^7$	0.22851	0.632685783

Table 1: Results of the performed stress analysis. The underlined values represent the maximum stress that the beams can suffer without causing permanent deformation. Consequently, the maximum rotation angle is 13.8°