

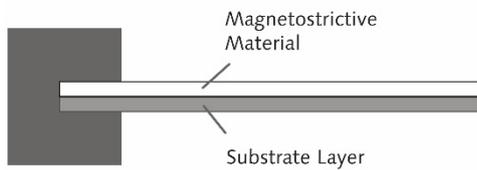
1. Before the Experiment

Definition of **magnetostriction**: _____

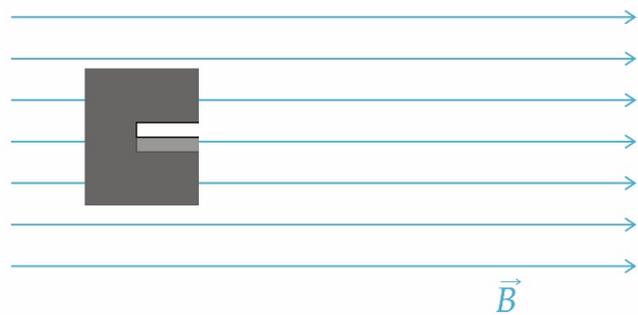
Task 1

Draw a sketch that shows how a bending beam sensor works.

Outside of a magnetic field:



Inside of a magnetic field:



2. During the Experiment

Task 2

For each sample, write down its properties (length, width and thickness of the respective materials, etc.). Then, write down the frequency values at which you observed an unusually high excursion. These values are the values of the natural resonances of the sample.

	Properties of the Sample	Natural Resonance Frequency
Sample 1		
Sample 2		
Sample 3		

Task 3

Investigate the relationship between the strength of magnetostriction and the current strength. Summarize your observations in the following sentence:

The higher the current strength, the _____.

3. After the Experiment

Task 4

Note, which properties of the magnetostrictive material influence the behavior of the sensor and how they influence it.
