Objectives:

The characteristics of a mass-spring-damper system were determined through the use of a linear velocity transducer (LVT) that produces a voltage proportional to the velocity of a magnetic core. Next, the properties of a linear variable differential transformer were investigated by calibration through weights and beam deflection. The effects of modulation and filtering were also observed. Experimental frequency response of the system was then determined using Lab View Signal Express.

Theory:

2.3. LVDT Frequency Response