

Device for Measuring the Stiffness of Tension Springs

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Abstract. This paper describes a novel mechatronic device for measuring the stiffness constant of simple steel tension springs. The device can measure the stiffness using two principles: quasi-static and dynamic methods. The device is based on the Arduino Mega platform and has a touch-sensitive display for measurement control and visualization. The operation and measurement accuracy of the designed system on selected steel tension springs is evaluated.