

Higher-accuracy Mass Measurement Using Limit Cycle of Control System

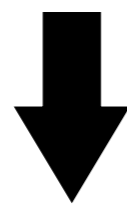
Control Engineering Laboratory

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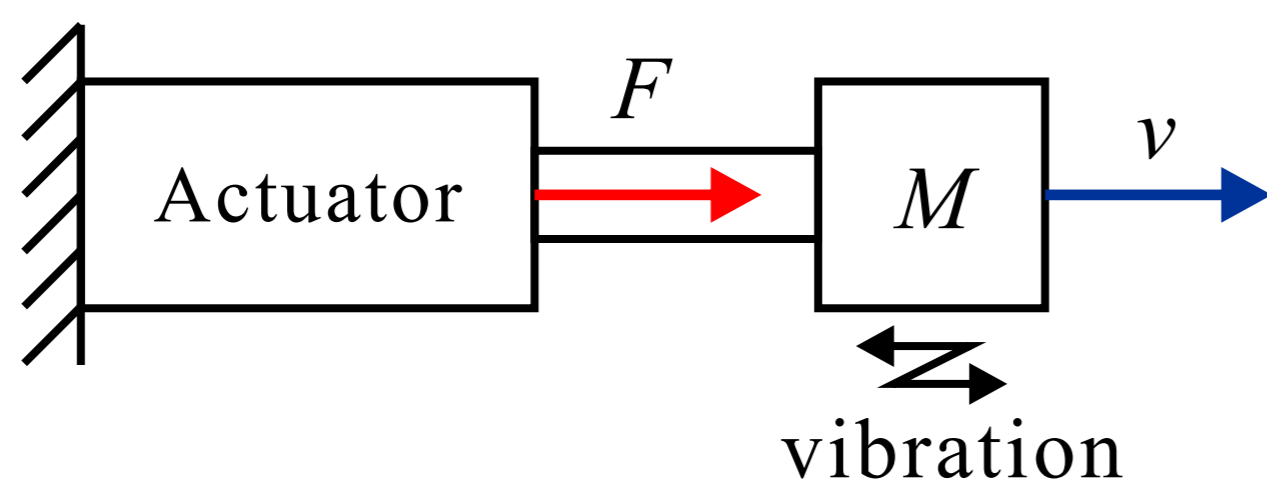
Introduction



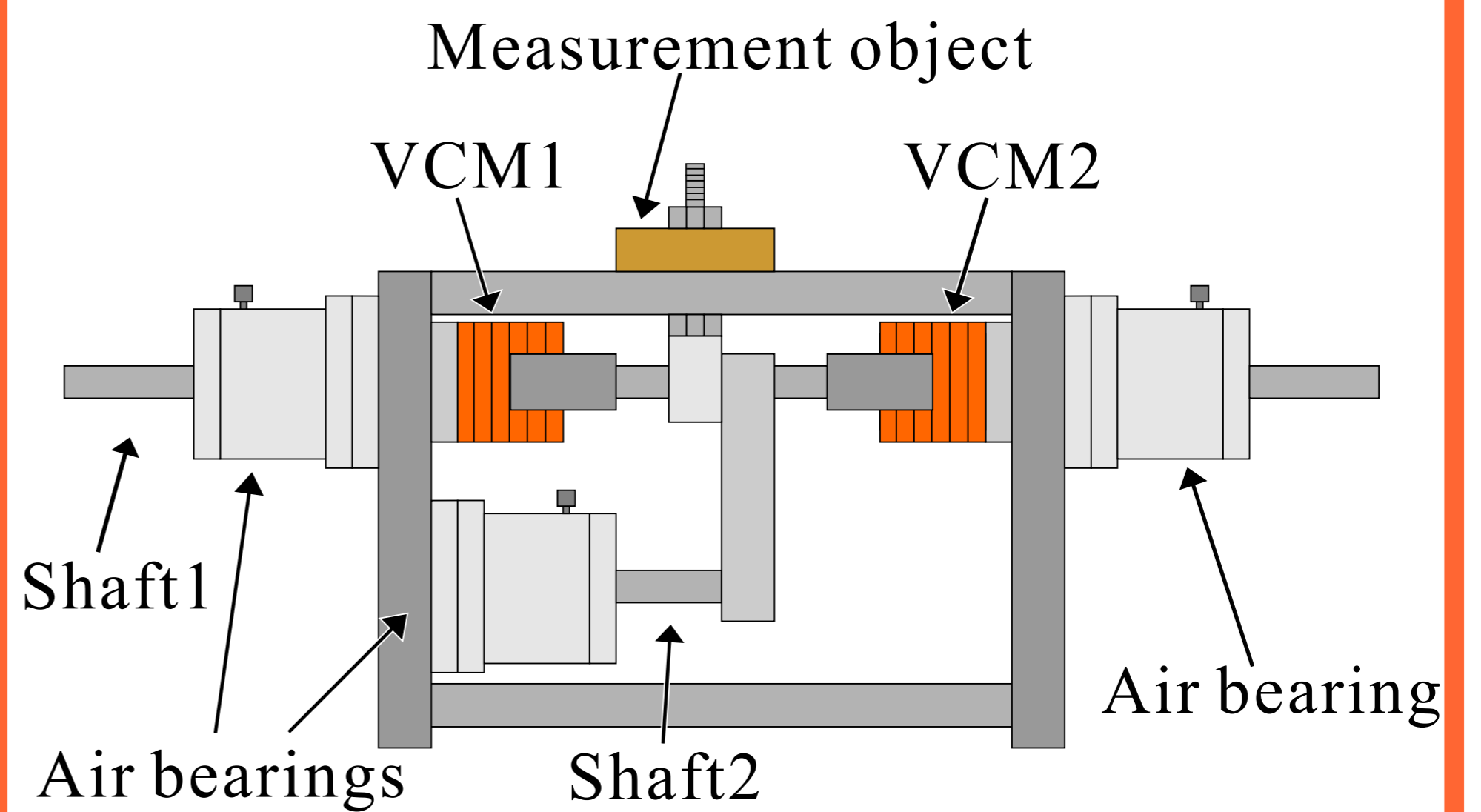
The mass measurement using gravity is not possible with zero gravity environment



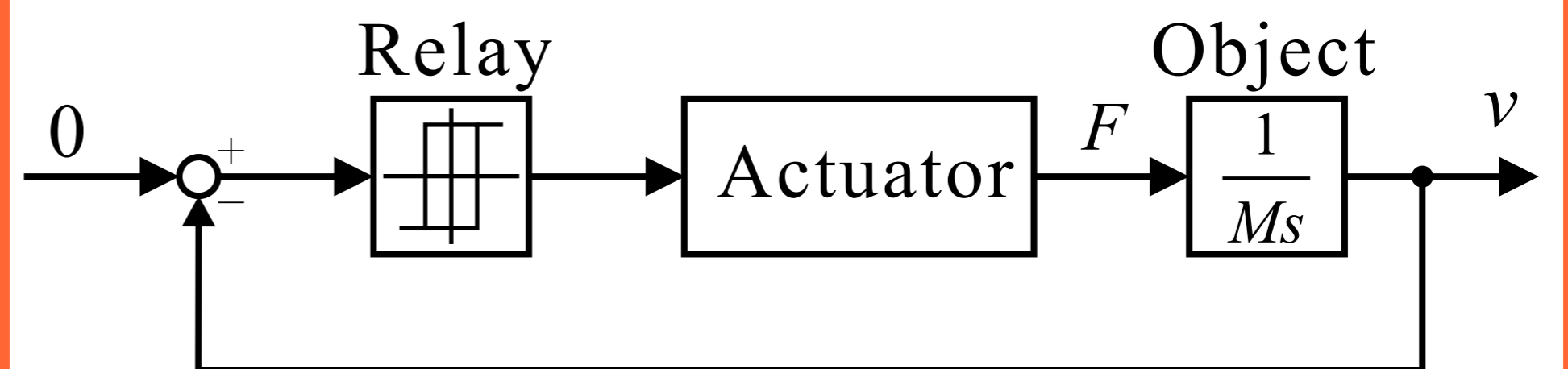
The method for measurement using
Limit cycle of control system



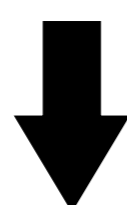
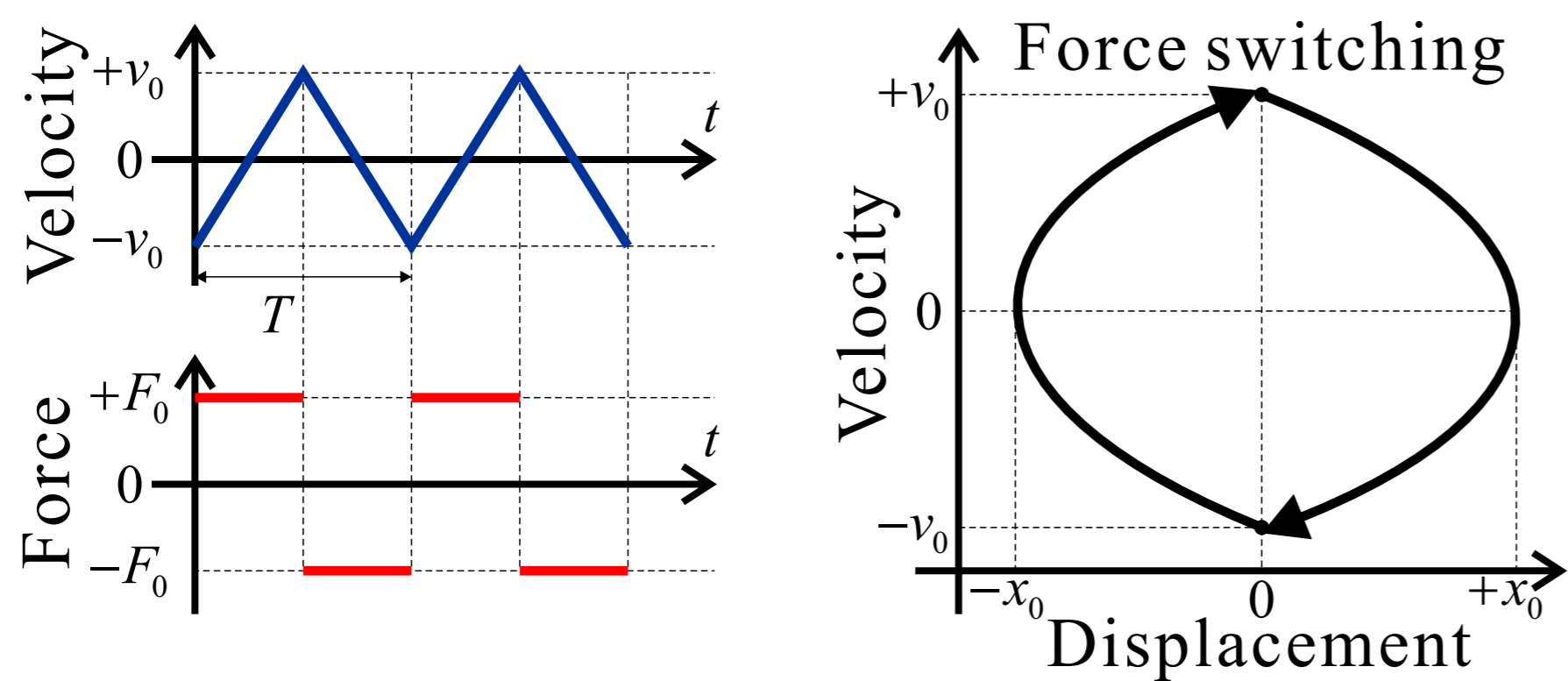
Experimental apparatus



Control system



Experimental principle



The mass is found as follows
by second law of the exercise

$$M = \frac{F_0 T}{4v_0}$$

Mass measurement

