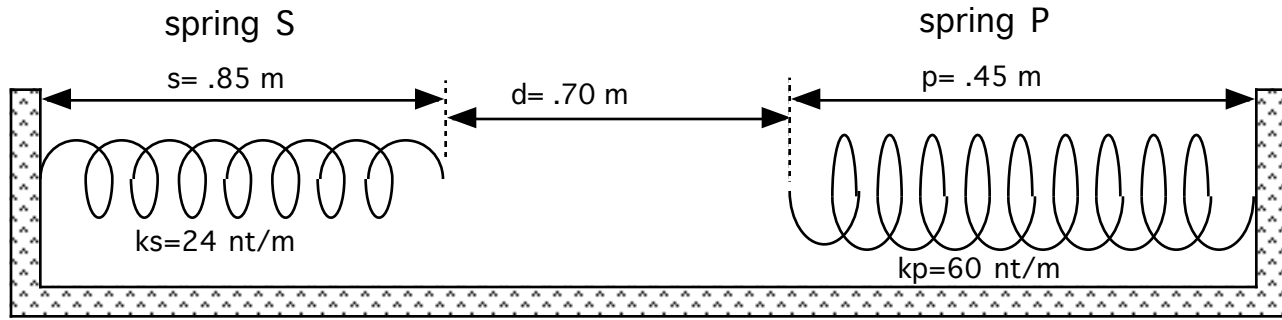
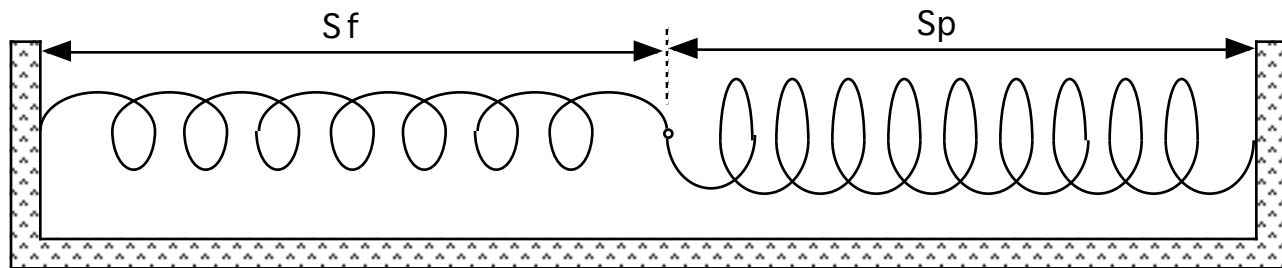


ATTACHMENT

Two unstressed springs attached to opposite sides of a box. Diagrams not to scale.



Initial conditions



final conditions

Physics statements:

A. When ends are joined, each spring exerts the same magnitude of force on the other, in opposite directions.

B. A relaxed spring whose force constant is k , which is either stretched or compressed by an amount x , then contains potential energy given by:

$$(1) \text{ PE} = .5 k x^2$$

C. Hooke's law, $F = -k x$, relates the force F exerted by a spring which is extended from 0 to x . Note that the force F is exerted by the spring, not on the spring, and is opposite to the extension x .