Standing Waves on a String

A sine generator is used with a modified loudspeaker to drive a taut string. By sweeping the sine generator one may find the string's resonant frequencies. The amplitude of the string's motion is large enough so that the standing wave patterns are clearly observed. A black light may be used to illuminate a white or fluorescent string. Alternatively, a strobe light may be used to create the illusion of slowing down or freezing the motion.

One end of the string is attached to a weight pan and hung over a pulley. The tension of the string may be adjusted by changing the amount of weight on this pan.

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