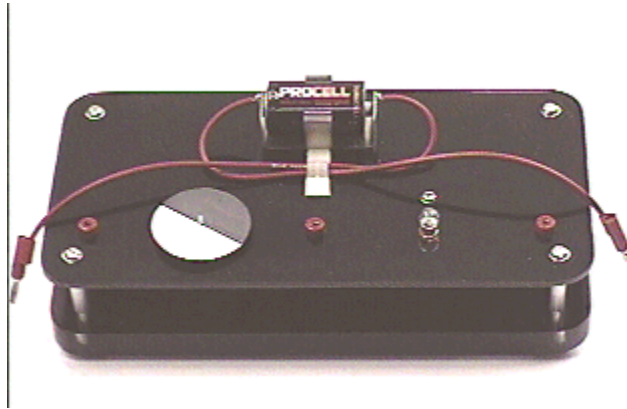


Answer #120

The answer is (d): Neither the motor nor the light bulb will operate, as can be seen by clicking your mouse on the photograph below. In the video the connection is made while the motor is held and then released. In both cases the bulb remains unlit. (The motor cannot operate while you are holding it!)



In either case (motor held or allowed to move) the current is very low, adequate to keep the motor running rapidly with no load, but not sufficient to light the bulb.

By selecting a bulb with operating voltage lower than the battery voltage, the bulb will continue to operate while the motor is either held or allowed to run, demonstrating that there *is* current in the series circuit in both cases.

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