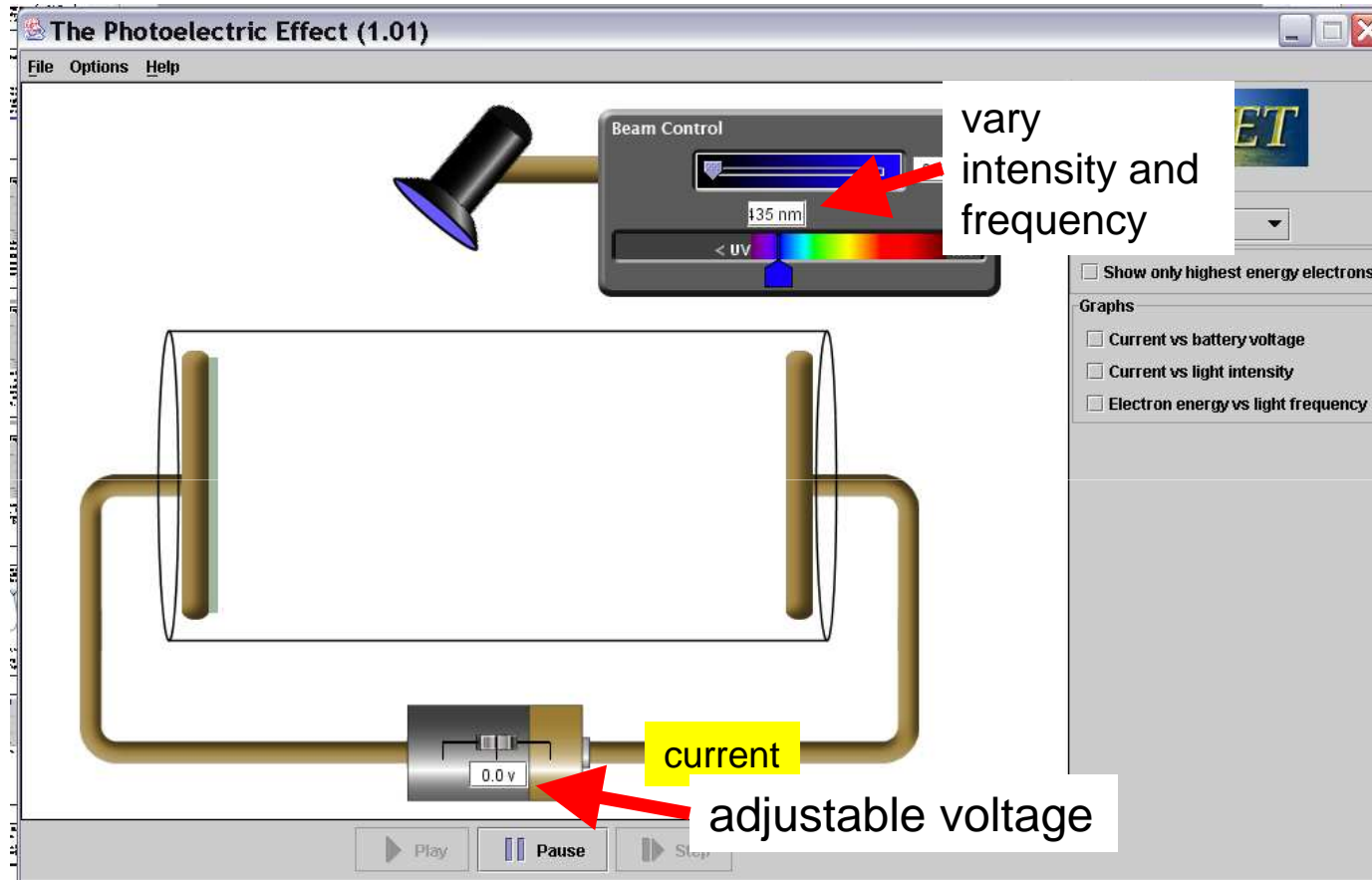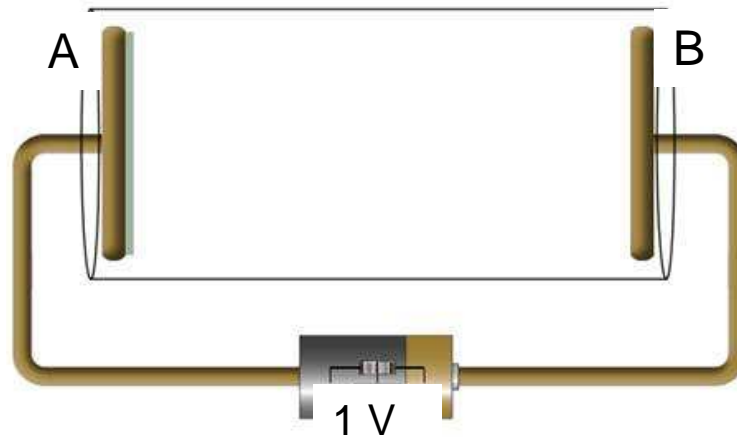# Photoelectric effect
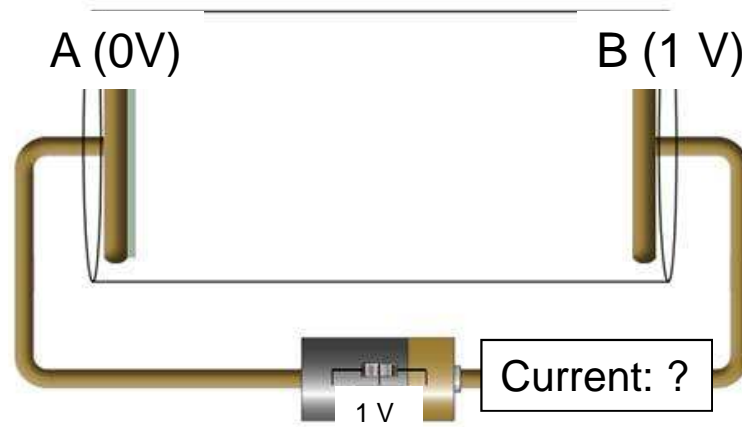
Suppose the battery is set to 1V. What is the potential difference between plates A and B?

(A) 0 V   (B) 1 V   (C) 2 V   (D) infinite V

Suppose the battery is set to 1V and the resistance of amperemeter and wires is 2Ω .
What is the current measured?

A (0V)   B (1 V)

1 V

Current: ?

(A) 0 Amp   (B) 0.5 Amp   (C) 2 Amp

Suppose the battery is set to 1V. If an electron (q = -1.6 x 10^{-19} C) is released at rest at plate A, how much kinetic energy will it have at plate B?
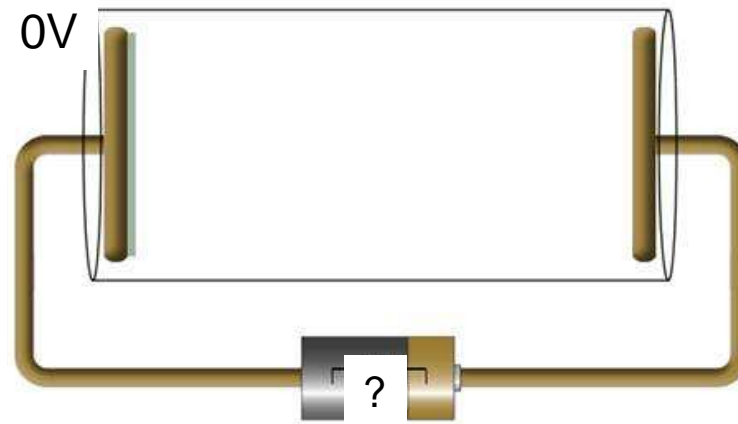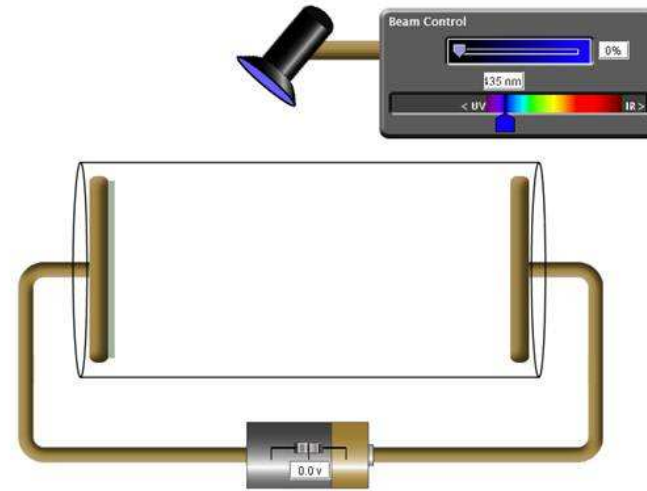
A (0V)　　　　　　　　　　　　　　B (1 V)

1 V
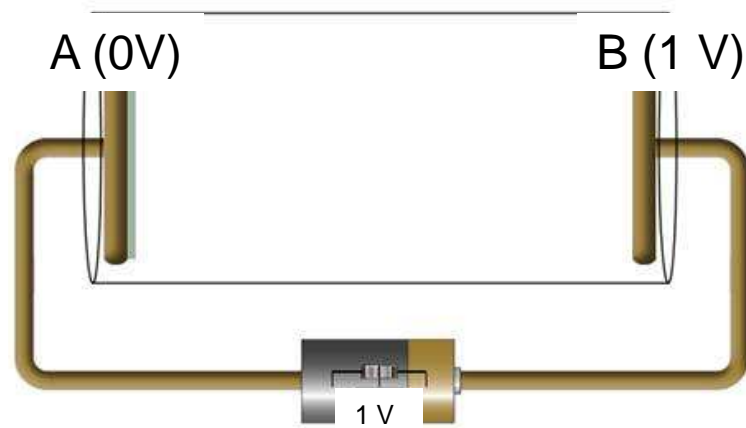
(A) 1 J　　　(B) 1.6x10^{-19}J　　　(C) 6.25x10^{18}J

Suppose an electron is released with kinetic energy of 10 eV at plate A. What has to be the potential at plate B such that the electron just does not reach plate B?

0V

?

(A) 0 V   (B) 10 V   (C) -10 V

Photoelectric effect

Apparatus measures:

(1) Current = # of electrons reaching plate
(2) (Maximum) kinetic energy of electrons
(3) Time delay between current and
     application of light