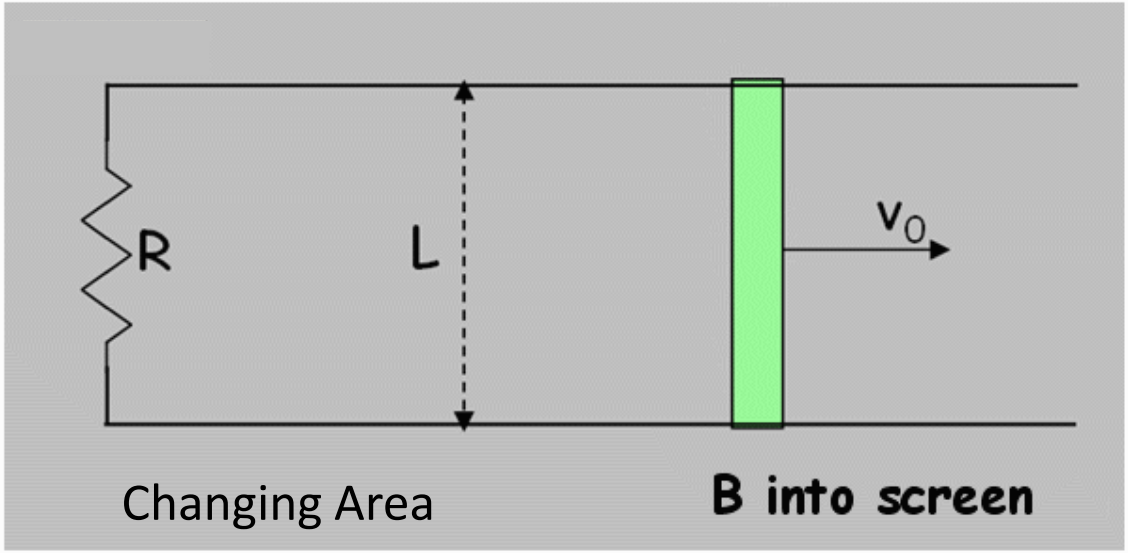
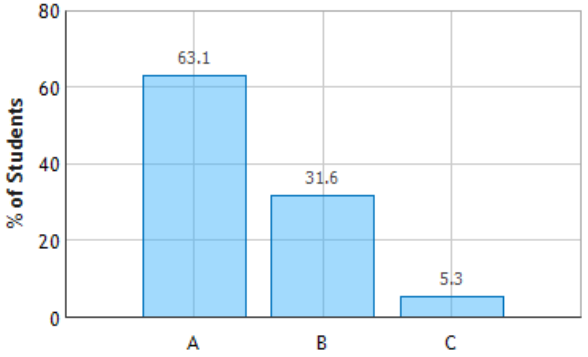
CheckPoint 2a

A conducting bar (green) rests on two frictionless wires connected by a resistor as shown.



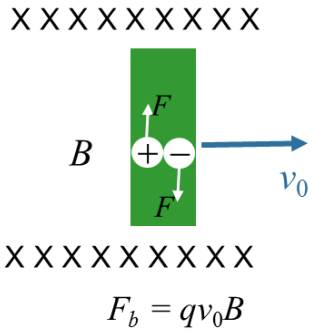


The entire apparatus is placed in a uniform magnetic field pointing into the screen, and the bar is given an initial velocity to the right.

The motion of the green bar creates a current through the bar

A. going up

B. going down



Bar

Opposite forces on charges

Charge separation

$E = v_0 B$

$emf = EL = v_0 BL$

Equivalent circuit