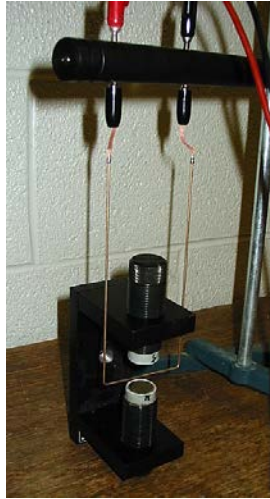


Magnetic Force on a Current (Pasco's Version)



Setup

Purpose: Demonstrates $F/L = I \times B$.

This demo uses part of the equipment based around Pasco's variable-gap magnet.

Since the B -field due to a magnet points from N to S, the magnetic field points upwards in the photo shown here. Hence, if current is run through the wire in the conventional sense (red is positive), so current is flowing from left to right, the wire swings outward. Reversing the current direction causes the wire to swing inward.

Note: This demo shows the effect very clearly. No more than 2 A of current is required. To make the magnet sit upright as shown, you screw the N pole face in far enough (and the S face out of course) so its reverse end is even with the frame. The wire banana plugs into the special cross bar included in the set.

Extra Equipment: Ring stand and power supply

Location: Shelf F3