CIRCUIT ASSEMBLY

Circuit diagram used in the practice.

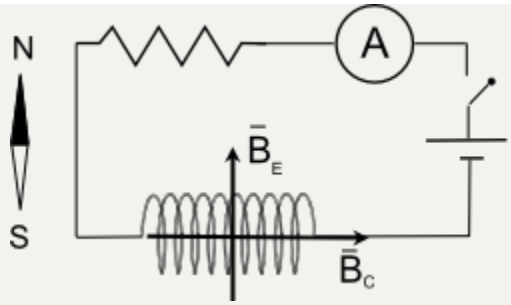


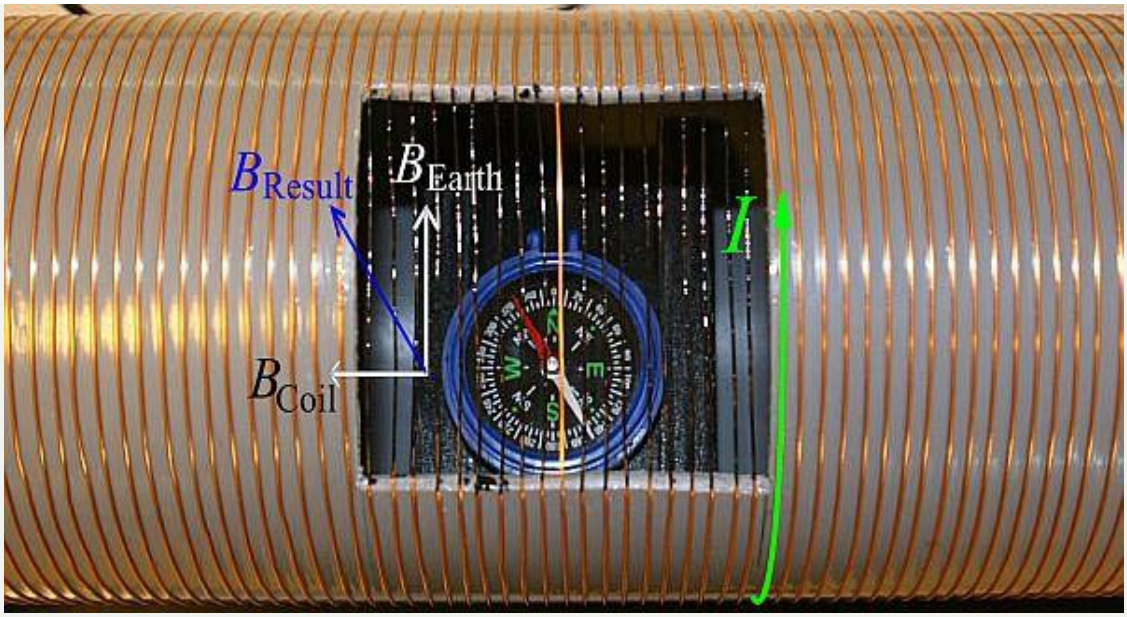
Figure 5. DC circuit with a coil wire. The coil is oriented so that its magnetic field B_C is perpendicular to the Earth's magnetic field

Earth's magnetic field

Laboratory work

Enter the compass in the center of the coil with care not to damage the welds in the coil terminals. The compass should be located in the center of the window, in a horizontal plane and north-south direction perpendicular to the axis of the coil. This step must be performed as accurately as possible and with the help of the wire that has not been painted in black.

Assemble the resistor of higher value and take readings of the current and the angle of the compass. Swap links with the feeder circuit and re-read the deviation from the compass.



Repeat for the other resistors. It is important that the position of the coil does not vary along the practice. To do this, double check occasionally that the needle remains in the initial position before closing the switch.

Source: http://web.ua.es/docivis/magnet/circuit_assembly.html