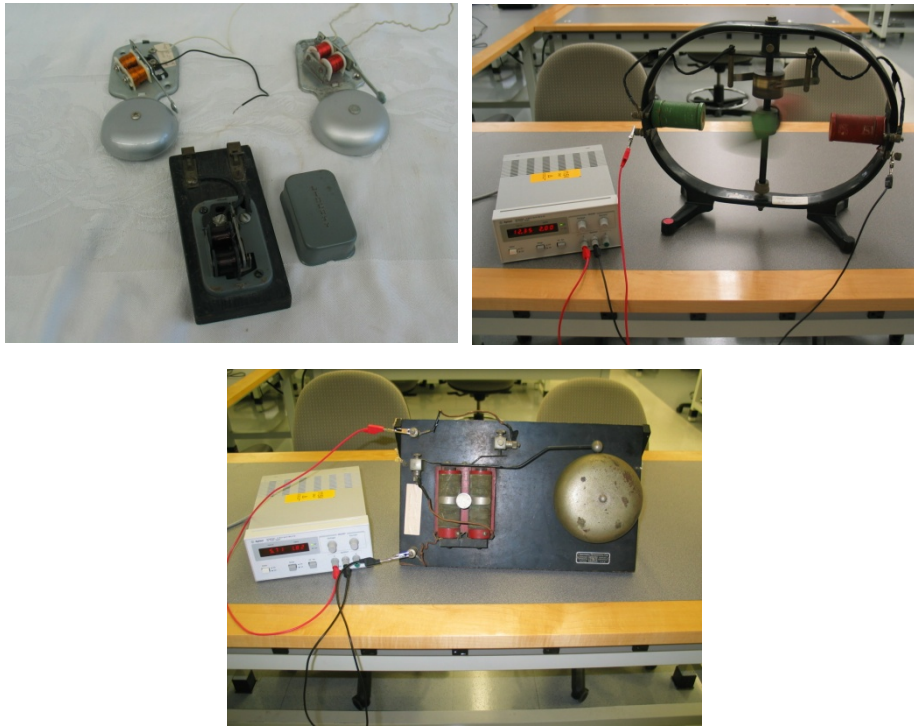


Applications of Electromagnets



Purpose: To demonstrate some practical applications of electromagnets.

Location: Room 146; bells and buzzer on M6, motor on N2, Hp power supply on C3

In the top left picture there are 2 small bells and 1 buzzer. All three have a very similar design. Approximately 5V can be applied to the terminals and the electromagnet will pull in the bell hammer to hit the bell. When the hammer is pulled in, the electrical circuit breaks and a spring pushes the hammer to reconnect the circuit. This happens rapidly over and over again to ring the bell. In the bottom picture is a larger model that requires the HP/Agilent power supply to be turned all the way up. The top right picture has a DC motor that requires the full power from the power supply as well. Once you give it a starting push it will pick up speed quickly. When the coils rotate 180 degrees, the commutator reverses the direction of current to the rotating coils.