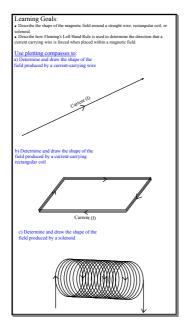
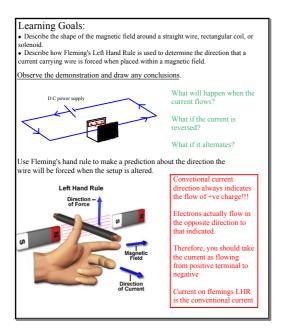
Field Shapes and left hand rule.notebook

February 03, 2014





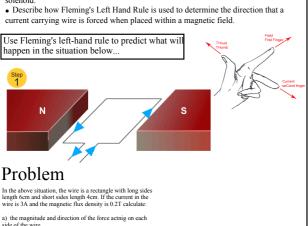
Flemings rule	F =	BILsin(9)
B is the Magnetic Flux Dens I is the Current L is the length of wire within	, ,	The magnitude of the current is that
When representing magnetic flux lines that either g paper or out of the paper, think of an arrow. If the fl are coming out of the paper towards you, then you looking at the front of the arrow (and would see at field lines are going into the paper and away from y would see the back of the arrow (the cross hairs of the paper). ### = going into the paper	ield lines are ot). If the ou, you	which is perpendicular to the magnetix flux lines.
Problem:	conducting rails (o D.C. supply so that bar. a) If the magnetic f length of the wire i size and direction of	es within a magneite field and rests on two ver which it can roll) and is connected to a a current passes from A to B through the field has a flux density of 0.1T and the s 3cm and the current is 3mA, what is the fit for force experienced by the wire? Id the rails have to be tilted to to ensure ationary?

Field Shapes and left hand rule.notebook

February 03, 2014

Learning Goals:

- Describe the shape of the magnetic field around a straight wire, rectangular coil, or



Learning Goals:

b) the torque on the wire

- Describe the shape of the magnetic field around a straight wire, rectangular coil, or solenoid.

 • Describe how Fleming's Left Hand Rule is used to determine the direction that a
- current carrying wire is forced when placed within a magnetic field.

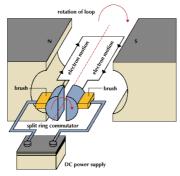
Click here to see how the electric motor works

Now use the Winchester kits to construct an electric motor (Extremely tricky but can be done and worth the effort!)

Learning Goals:

- Describe the shape of the magnetic field around a straight wire, rectangular coil, or
- Describe how Fleming's Left Hand Rule is used to determine the direction that a current carrying wire is forced when placed within a magnetic field.

<u>Plenary:</u> Explain how this design is more efficient



_	
<u> </u>	