

ID Card		Complex	# EE-AP-MD-MB-001
X	Project	Basic Principles	Advanced Principles
X	Experiment	Electricity	Electromagnetism
Key Takeaways		Building circuits and simple systems Relation between electricity and magnetism	

Registered Non-Profit In IA
 IRS Tax Exemption in Process!



Building A Better Tomorrow!™

Electromagnetism

Pop the Balloon

Experiment Guiding

Steps:

1. Keep the nails and batteries until circuits are approved.
2. Let them experiment with ideas for a bit.
3. At some point, they should try winding the wire around the bobbin. If they don't look like they will be trying that, or if they are going in a different direction, gently prompt them toward winding wire around the bobbin.
4. Make sure the switch is integrated into their circuit.
5. Connect a battery in the circuit and press switch, see the nail is pulled in.
6. Have the nail in bobbin, test with other metals.

Monitoring

1. Before placing the batteries and nail in for tests, make sure the circuit is sound. If you cannot tell, ask a facilitator.
2. While the tests are being run, make sure the switch is **NOT** being held down for large amounts of time.
3. Check after every test if the batteries is getting hot. If they are, switch them with others for the next test.
4. Remove the battery and nail after each test.

