

Studio Session 2

**Pre-Project 2
The Basic Beakman's Motor**

Read over the write ups from past semesters on the Beakman's Motor. Also, look over all of the materials provided for the Electronic Instrumentation course, including the PowerPoint presentation on this project. You will find them at <http://hibp.ecse.rpi.edu/~connor/education/EILinks.html#Proj1>

In this studio session, you are to build the basic motor using a DC power supply for your 1.5 Volt source. You will also have a (probably dead) battery to see how the configuration goes together. Once you build the motor, you need to test it. It does not matter how fast it goes, only that it actually turns. Once you get it going, have a TA verify that you have completed this task by signing below.

In addition to building a working motor, you must also estimate the inductance and resistance of your coil. You should calculate both terms and also measure them. We have just covered how to determine resistance. For the inductance, read the first couple pages of the write up for Experiment 3 in Electronic Instrumentation (can be found on the webpage noted above.) The resistance can be measured with the multimeter and the inductance with the bridge. Make sure that you note the values for these parameters so that you will have them available when you begin the project.

**Did You
Clean Up?**

Name: _____

Name: _____

Name: _____

Name: _____

Speed: _____.

TA: _____

Coil Inductance

Measured

Calculated (provide formula)

Coil Resistance

Measured

Calculated (provide formula)