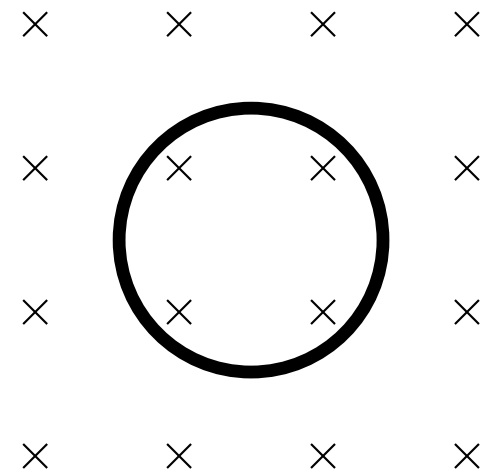


Faraday's law - let's try it!

The coil (face in the plane of the page) is bathed in an 8 Tesla B-fld oriented perpendicularly into the page. The resistance in the coil is 200 ohms. Its radius is 0.12 meters. The clock starts at $t = 0$. At $t = 5.0$ seconds, the B-fld drops to zero over a 0.2 second period.



- At $t = 2$ seconds, is there a magnetic flux through the coil?
- At $t = 2$ seconds, is there an induced EMF in the coil? If so, what is it?
- At $t = 5.1$ seconds, is there an induced EMF in the coil? If so, what is it?
- At $t = 5.1$ seconds, what is the induced current in the coil?
- At $t = 5.1$ seconds, what is the direction of the induced current?
- At $t = 5.5$ seconds, is there an induced EMF in the coil?
- At $t = 5.5$ seconds, what is the magnetic flux?