



Double Spiral Coil

by [Thinkenstein](#) on March 17, 2012

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I'm a refugee from Los Angeles, living in backwoods Puerto Rico for about 35 years now and loving it. I built my own home from discarded nylon fishnet and cement.

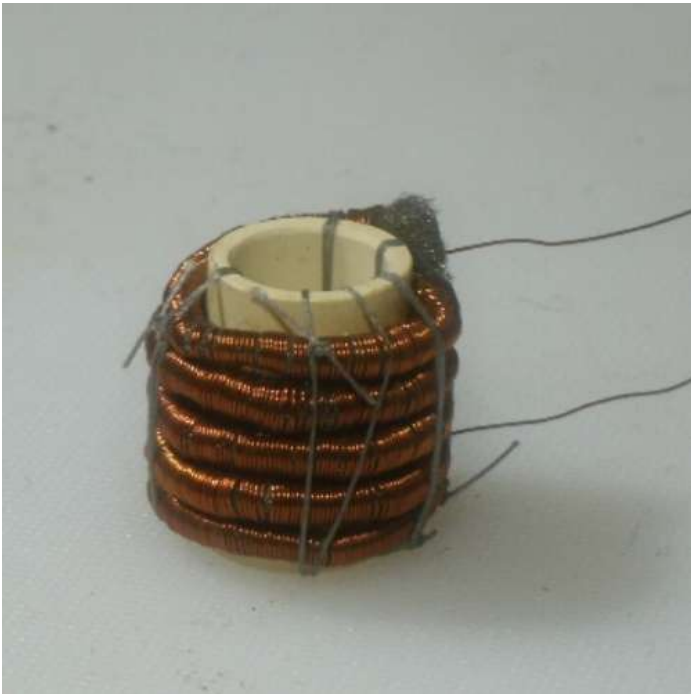
Intro: Double Spiral Coil

I am at the bottom of the electronics learning curve, and don't really know what I have come up with here. It seems interesting to me though, and worth sharing. Let me know if you can imagine any applications.

I have seen normal, straight electro-magnet spiral coils and also doughnut-shaped toroid coils. This is similar to both ideas, but different. For one thing, since the iron core spirals around several times, an expanding electrical field from the copper wire cuts the iron core material more than once, so the magnetic field strength per amount of copper might be increased with this design.

It uses a long, flexible coil made by winding copper wire around a steel wool core. This steel wool increases surface area of the iron and may improve the magnetic field per amount of iron. That coil is then wound around a piece of PVC pipe to make an air-core coil. Nylon thread holds it all together.

The flexible steel wool core coil might be shaped in other configurations, too, for whatever reasons. I don't have the experience to know what they might be. If you do, let me know.



Step 1: Winding the Copper

Steel wool comes in a sort of pad that can be pulled apart to get parallel fibers of steel, or iron. I recycled the copper wire from another coil. Just start at one end of the rope of steel wool and wrap it as tightly as you can. When you are done, wrap that around a piece of PVC pipe for an air core and tie it in place with some nylon thread.



Related Instructables



Lemon Flashlight, my electro-culinary dish! by scraptopower



Simple Science: Burn Steel Wool (video) by NurdRage



How to Make a Fire Wire [Easy Fireworks] (video) by NightHawkInLight



Step By Step Plans to Building a 250,000 Volt Tesla Coil. (REVISED VERSION) by Tesla Coiler



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