NANODIMENSION

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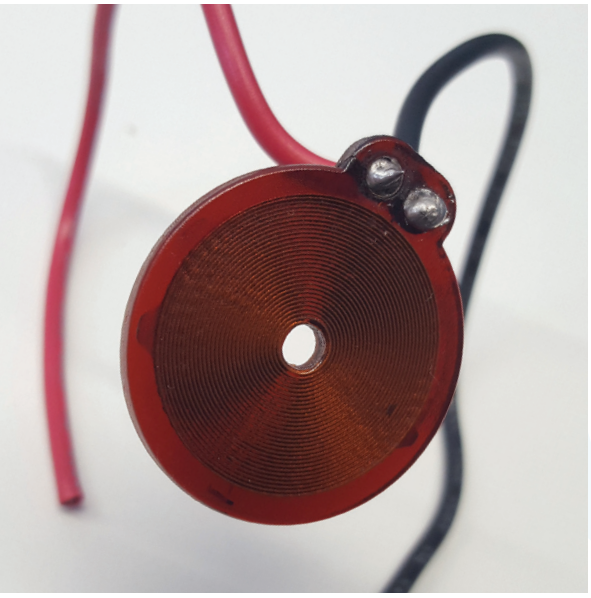
3D Printed with the DragonFly™ 2020 Pro 3D Printer



Electromagnets
3D Printed Coil

With their invisible force field pushing or pulling anything with an electric charge, electromagnets can seem like magic. Creating electromagnets involves wrapping a conductor (or wire) with an electric current around an iron core, and the current flowing through the spiral powers the coil. An electromagnet's strength can easily be changed by adjusting the amount of current flowing through it. And no matter the shape or size, all electromagnets behave in similar ways.

Customization and a Competitive Edge

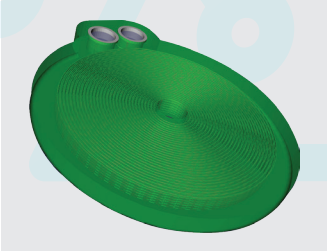
Electronics designers are in a race to develop new and differentiated products, and 3D-printed electronics can help them win that race. For example, the unique capabilities associated with 3D printing of electromagnets makes it possible to customize the physical shape and size of the electromagnet to enable affordable prototyping for experimental applications. Limitless shapes and sizes can be created with 3D printed electronics to accommodate specific project needs and enable more precision.

With the DragonFly Pro 2020 designers and manufacturers can now create new 'beyond-PCB' applications for electronic products far beyond what was possible with standard electromagnets, opening a world of opportunities for innovative product designers and leading to the widespread fabrication of 3D-printed electronics and customized additive manufacturing.

Check out the video, created by Nano Dimension, showing a simple electromagnet 3D Printed Coil in action. The coil was 3D-printed using the DragonFly 2020 Pro 3D Printer for professional electronics. With this advanced printing technology, it is now possible to develop a wide range of powered devices from antennas, touch sensors, and electric doorbells to motor generators and transformers.

General Information

Trace Size	100x100um
Number of Layers	12
Number of Wraps (Turns) Around Each Layer	30
Distance Between Layers	100 micron (4 mil)



CAD model of electromagnet 3D printed coil