

Mighty Hoop Magnet Information

The following is information about the strength of the magnets used in Mighty Hoop products. You can see from the readings below that at a distance of 6 to 12 inches or about 30cm, there is very little magnetic field. We put a lot of warnings on the hoops so that people are aware of the magnetic field, but in most cases just taking simple precautions is all you will need to do. We have thousands of these hoops in embroidery shops, and have not had any medical, machine, or computer related issues. The main thing to avoid is to not set the hoop directly on hard drives, old style floppy disks, or right on top of your computer. Credit cards and watches can also be affected so keep the hoop at least a few inches away from these items. Most normal electronics are not affected. If you have any type of **medical device or implant**, please use the values below, and talk with your doctor about any possible affects the magnets could have on your device or implant.

These measurements were taken with the hoops together, just like they would be when they are in the machine. No material was hooped, so the numbers should be higher than if there was a garment in the hoop. All of these measurements are in Gauss, which is a standard unit of measurement for magnetic field. Another Unit would be Tesla, to convert 10,000 Gauss = 1 Tesla

The magnets used are rare earth neodymium type magnets that are very strong, but you will see that the field strength drops off very quickly (almost exponentially) with distance.

The magnetic strength directly on the top surface of the hoop at the strongest point above the magnet is about 1800G to 2000G. If the top and bottom rings are apart, the strength on the attraction side of the hoop could be up to 3900G. This strength can only be measured in a spot smaller than 1/8" in diameter directly on the top of each magnet. Please do not take the hoops apart, the values on the magnets when outside of the hoop would be stronger! Here are some measurements at a small distance from the top surface of the top hoop with the rings together. You can see how fast the strength drops with even a small distance.

On the surface as explained above 1800G to 2000G.
at 3/4" away from the top surface the measurement is from 120G to 140G
at 1 inch away it is 40G to 80G
at 2 inches it is 15G to 30G
at 3 inches it is less than 10G
at 4 inches it is unreadable on our meter so it is probably 5G or under

Here are some typical magnet strengths for some other common items to help you compare these numbers.
A rubber type refrigerator magnet has about 120G to 300G at the surface
A magnetized screwdriver tip has about 330G at tip and 60G at 3/8" away
An MRI Imaging machine at a Hospital has a field strength of about 10,000G to 20,000G or 1 to 2 Tesla

We hope this information will help you determine what needs to be done to use the Mighty Hoops safely. If you have any other questions, please contact us at info@hoopmaster.com