

Application No. 96: Levitation with Bismuth

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Floating magnets - thanks to diamagnetism

With the help of the diamagnetic (en.wikipedia.org/wiki/Diamagnetism) character of the metal "Bismuth" you can cause a magnet to levitate without any electronics.

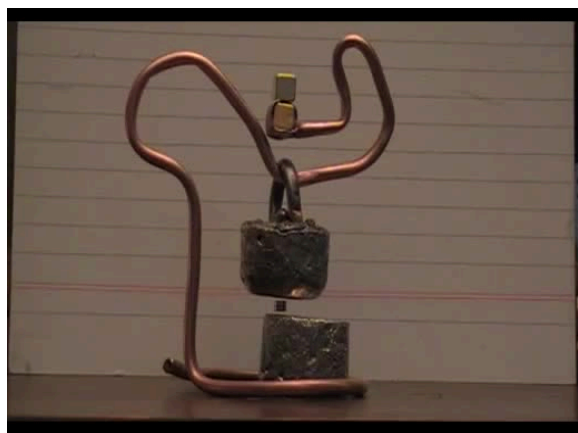
Levitation with small magnets

For this experiment I used two disc magnets S-03-01-N (www.supermagnete.fr/eng/S-03-01-N), which I positioned between two pieces of bismuth.

To work a little against gravity, I placed two W-05-N50-G (www.supermagnete.fr/eng/W-05-N50-G) cube magnets above the pieces of bismuth.

The hangar is made of a copper wire which was bent to the proper height by "trial and error".

And look: There you have a levitating magnet, without any complicated electronics!



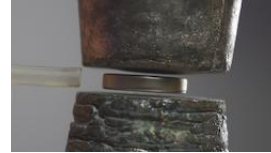
Video

Levitation with large magnets

Our customer Robin L. also built something to make magnets levitate between self-cast bismuth blocks. But he was thinking in larger dimensions. He attached a DEATH MAGNET (www.supermagnete.fr/eng/Q-51-51-25-N) on top to let the magnets levitate, which are:

- K-13-C: Sphere magnet Ø 12,7 mm (www.supermagnete.fr/eng/K-13-C)
- R-27-16-05-N: Ring magnet Ø 26,75/16 mm, height 5 mm (www.supermagnete.fr/eng/R-27-16-05-N)





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Nicht einverstanden

Einverstanden

Note from the supermagnete team: There are also other customer projects that deal with levitation:

Go to levitation collection (www.supermagnete.fr/eng/projects/levitation)

Articles used

2 x S-03-01-N: Disc magnet Ø 3 mm, height 1 mm (www.supermagnete.fr/eng/S-03-01-N)

2 x W-05-N50-G: Cube magnet 5 mm (www.supermagnete.fr/eng/W-05-N50-G)

1 x Q-51-51-25-N: Block magnet 50,8 x 50,8 x 25,4 mm (www.supermagnete.fr/eng/Q-51-51-25-N)

1 x K-13-C: Sphere magnet Ø 12,7 mm (www.supermagnete.fr/eng/K-13-C)

1 x R-27-16-05-N: Ring magnet Ø 26,75/16 mm, height 5 mm (www.supermagnete.fr/eng/R-27-16-05-N)

2 x W-05-N50-N: Cube magnet 5 mm (www.supermagnete.fr/eng/W-05-N50-N)

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