

## Application No. 212: Magnet catapult

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### Hobbyists can now re-enact battles of the ancient world!

Opposite poles attract each other, like poles repel - and it is this repulsion that can be harnessed, for example with this magnetic catapult.

After watching a period film about the siege of the Masada fortress by the Roman army, I too wanted to build a catapult.

For this purpose, I used the strong repulsion of two large disc magnets. 3 possibly options are linked below.

I built this shooting device from red oak. On the left, near the magnets, I placed brass fittings and on the right I put steel nuts and bolts near the joint.

For "ammunition" I used juggling balls.



Damaged juggling balls



Video

The magnetic catapult shoots the juggling balls to a distance of about 3 metres! As you can see in the picture, the balls burst due to the strong impact.

I had a lot of fun with this little project.

### Addition 2018

YouTube user RLSscience also built a mighty magnetic catapult – even with two arms. For that, he used the repulsion of 3 Goliath magnets ([www.supermagnete.de/eng/Q-70-70-30-N](http://www.supermagnete.de/eng/Q-70-70-30-N)). In his video, he explains the assembly in detail (in German only).

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### Articles used

2 x S-30-10-N: Disc magnet Ø 30 mm, height 10 mm ([www.supermagnete.de/eng/S-30-10-N](http://www.supermagnete.de/eng/S-30-10-N))

2 x S-30-15-N: Disc magnet Ø 30 mm, height 15 mm ([www.supermagnete.de/eng/S-30-15-N](http://www.supermagnete.de/eng/S-30-15-N))

2 x S-35-20-N: Disc magnet Ø 35 mm, height 20 mm ([www.supermagnete.de/eng/S-35-20-N](http://www.supermagnete.de/eng/S-35-20-N))

3 x Q-70-70-30-N: Block magnet 70 x 70 x 30 mm ([www.supermagnete.de/eng/Q-70-70-30-N](http://www.supermagnete.de/eng/Q-70-70-30-N))

Online since: 07/04/2009

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