Application No. 408: Spheres in a circle

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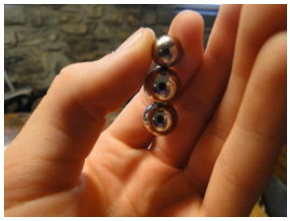
An entertaining chain reaction with magnets and steel spheres

I conducted an intriguing experiment that I very much want to share with you.

Required materialsl:

- a large bowl made of non-magnetic material
- a shallow plate
- 6 magnetic spheres type K-10-C (www.supermagnete.de/eng/K-10-C)
- 13 steel spheres type ST-K-13-N (www.supermagnete.de/eng/ST-K-13-N)

Method:



One small sphere magnet holds two steel spheres

1. Invert the plate and place it inside the bowl.
2. Stick two steel spheres each to one sphere magnet (see picture).
3. Arrange six of these trios evenly around the plate. The magnets must always point in the same direction.
4. Let the last remaining steel sphere snap onto one of the sphere magnets from the right.
5. Marvel at the chain reaction! (see video below)

The sphere magnet is always to the right of the two steel spheres

Video

Note from the supermagnete team: The "Gauss cannon" (www.supermagnete.de/eng/project148) is a similar experiment.

Articles used

6 x K-10-C: Sphere magnet Ø 10 mm (www.supermagnete.de/eng/K-10-C)
13 x ST-K-13-N: Steel balls Ø 12,7 mm (www.supermagnete.de/eng/ST-K-13-N)
13 x ST-K-10-N: Steel balls Ø 10 mm (www.supermagnete.de/eng/ST-K-10-N)
13 x ST-K-20-N: Steel balls Ø 20 mm (www.supermagnete.de/eng/ST-K-20-N)
13 x ST-K-08-N: Steel balls Ø 8 mm (www.supermagnete.de/eng/ST-K-08-N)

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