

Application No. 328: Levitating rod magnet

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The rod magnet levitates thanks to the strong repulsion of equal poles

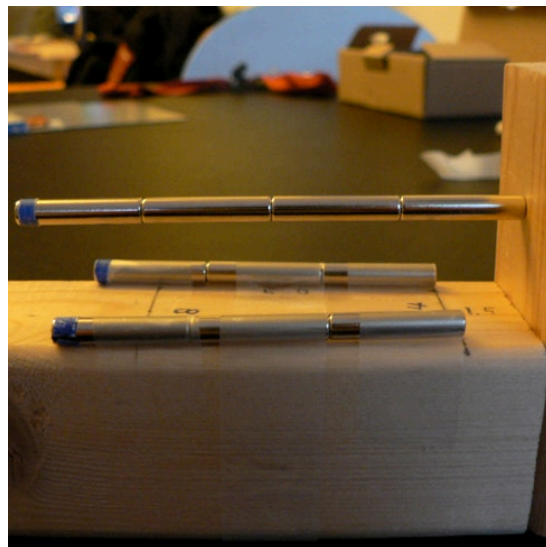
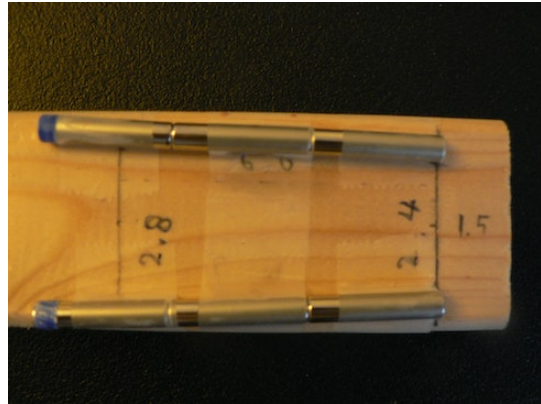
This project is about the strong repulsion of equal magnetic poles. You need:

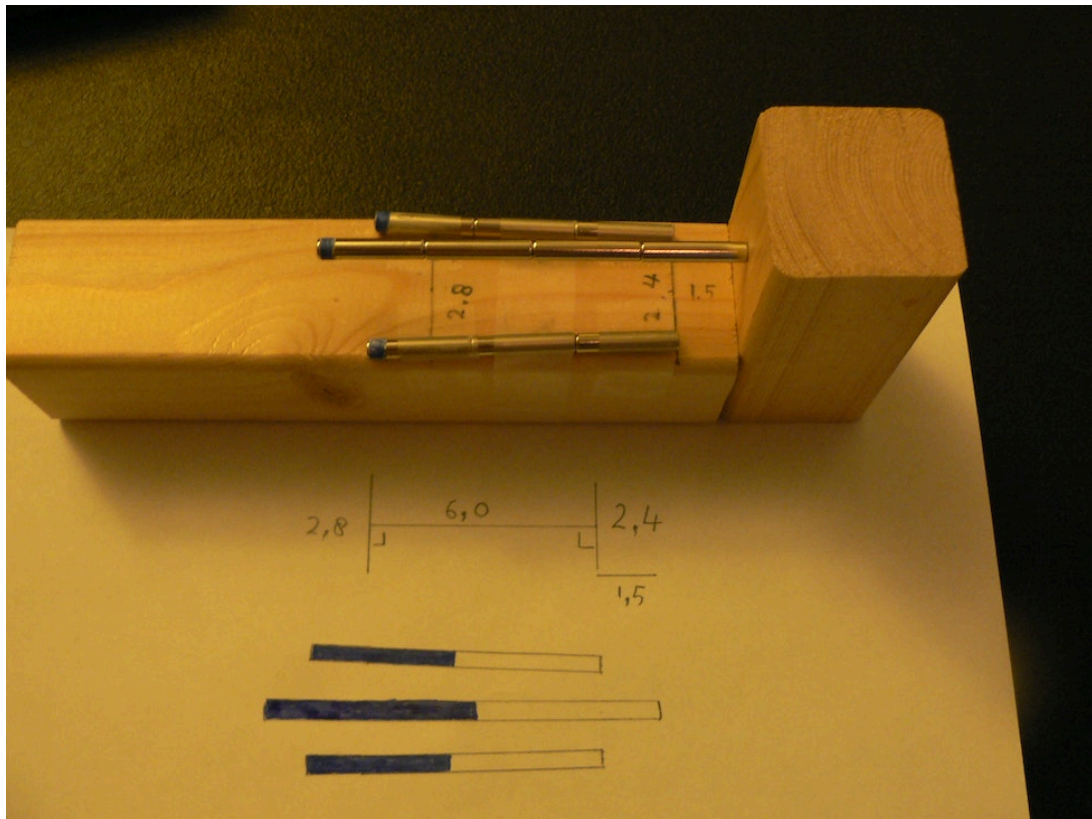
- Adhesive tape
- Two straight pieces of wood
- Rod magnets (www.supermagnete.de/eng/group/rods): Technically, all types will do, but the longer the rod magnet the more the equal poles repel each other. In this project we used 10 S-04-25-N (www.supermagnete.de/eng/S-04-25-N) rod magnets.

The assembly is simple:

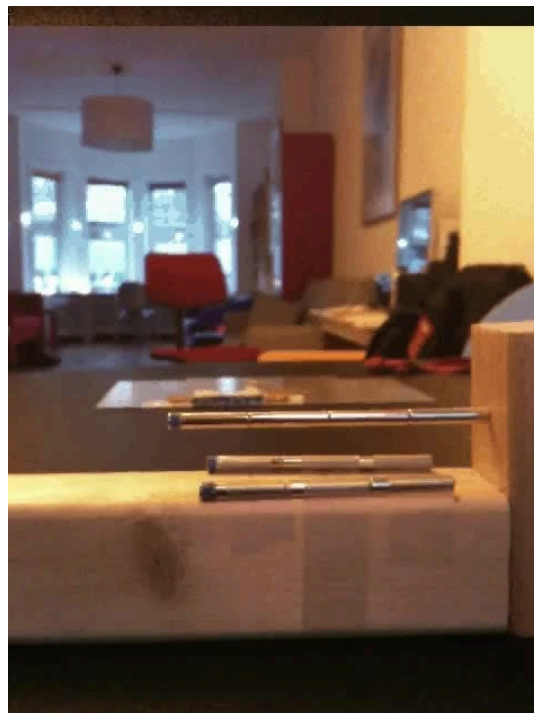
1. Divide the 10 rod magnets into three pieces: one with four magnets and two with three magnets.
2. Identify north and south pole on each piece (see FAQ north pole (www.supermagnete.de/eng/faq/northpole)).
3. Mark north and south pole of the three pieces with coloured adhesive tape.
4. Use adhesive tape to glue the two shorter pieces on a piece of wood.
5. Place the second piece of wood perpendicular to the other.
6. Carefully prop the long magnetic rod against the perpendicular wood and then let go.

Result: The long rod levitates above the others!





The blue marks symbolise the north or south poles of the assembled rods



The video shows how it works (Video)



Articles used

S-04-25-N: Rod magnet Ø 4 mm, height 25 mm (www.supermagnete.de/eng/S-04-25-N)

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