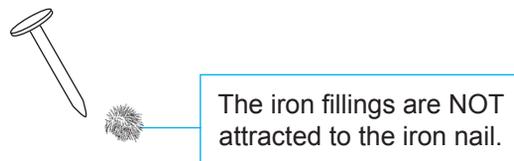


Making Magnets

You can make your own magnet using the **stroking (touch) method**. This is the safest and simplest way to make a magnet. All you need is an iron nail (or some other magnetic object) and a magnet.

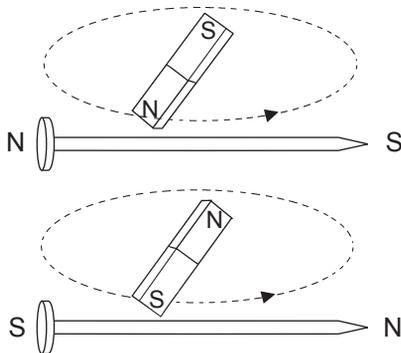
Bring an ordinary iron nail close to a pile of iron filings. You will notice that the iron filings are not attracted to the iron nail because it is not a magnet.



Now, we will perform the experiment below to turn the iron nail into a magnet.

Single Touch Method

An iron or steel nail can be made into a magnet by stroking it repeatedly (at least 20 times) with a magnet in one direction only.



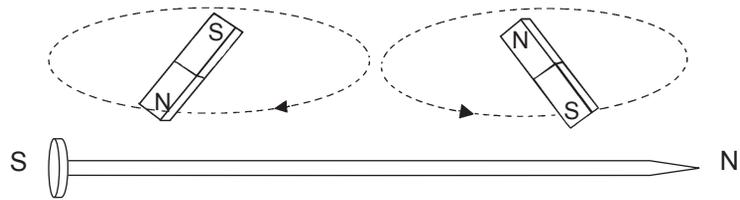
Stroking in an anticlockwise direction with the North pole touching the head of the iron nail will make the head of the nail the North pole and its tip the South pole.

To make the head of the nail a South pole and the tip a North pole, stroke in an anticlockwise direction with the South pole touching the iron nail.

After stroking for about 20 times, bring the iron or steel nail close to some iron filings. You will notice that the iron filings are attracted to the nail.

Double Touch Method

The iron nail is placed in a horizontal position. The ends of two magnets of different polarities are placed at the centre of the iron nail. The two magnets are then moved in a circular motion in opposite directions. The iron nail is stroked a few times in this circular motion along its length.



The two magnets are used to stroke the iron nail.

After stroking the iron nail repeatedly with a magnet, the iron nail will become a magnet. We say that the iron nail has been **magnetised**.

The greater the number of strokes you give the iron nail, the stronger its magnetism.

To test if the magnet you have made really works, bring it close to some iron filings and see if any attraction takes place.



Iron filings are attracted to the magnetized iron nail.



Alert However, do take note that the iron nail is only a temporary magnet. If you leave the magnetised iron nail around for a few days, it will very likely lose its magnetism. To turn it into a magnet once more, you will need to use the stroking method all over again.