

BUILD A COMPASS

ENGINEERING CHALLENGE 16

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The brief

Build a compass.

The method

1. Fill the bowl with water.
2. Magnetise the needle by stroking it over the bar magnet about 50 times. Make sure the needle is orientated with the needle pointing to the north of the bar magnet on each stroke.
3. Drop the needle onto the surface of the water – from as close as you can – to let it rest on the surface tension.

Materials

Water

Straight bar magnet

Steel needle

A bowl

