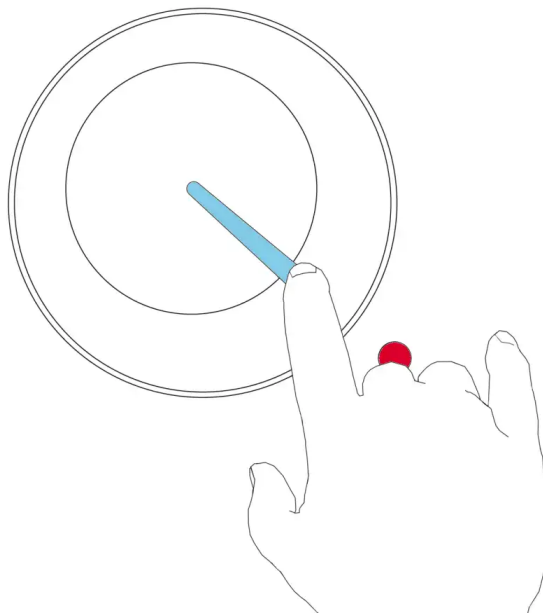


Lissajous' figures

Which patterns emerge from the vibrating metal rods?



Pull one of the metal rods towards the red spot and let it go.

What pattern does it make as it vibrates?

Try different starting points to see what patterns you get.

Try the other rods.

Every metal rod makes a different pattern as it vibrates.

Look at the base of each rod – they have different shapes and thus make different patterns.

Each rod vibrates at one frequency from side-to-side, and at another frequency forwards and backwards; the combination of these two frequencies makes the pattern you see.

The French physicist Jules Antoine Lissajous (1822 - 1880) discovered this phenomenon.