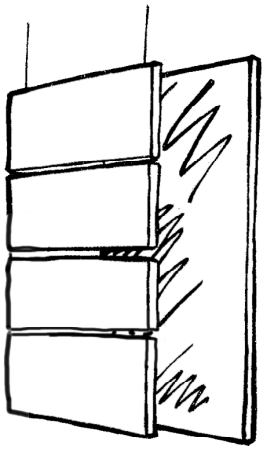
050



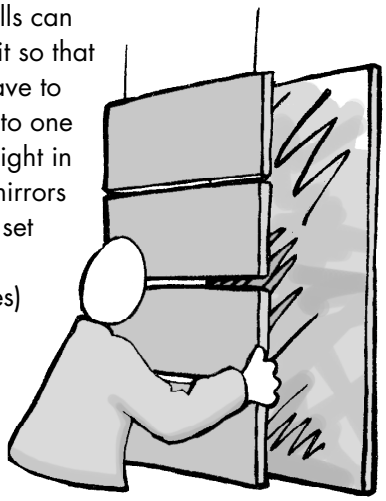
Look Into Infinity

What to do: Look through a gap between a pair of mirrors.

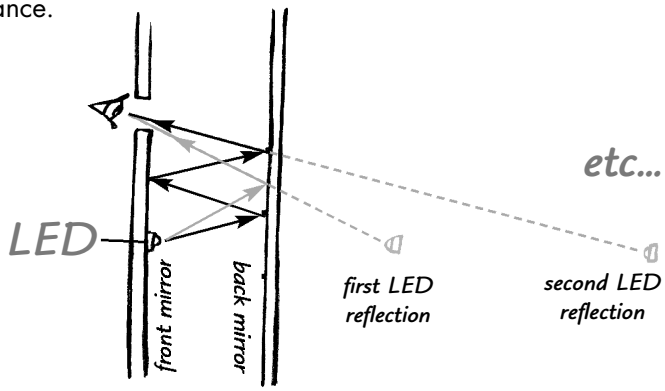
What happens: You see a long corridor of reflections, stretching into the distance.

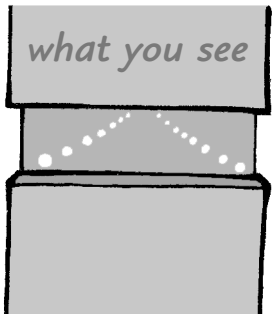
HOW IT WORKS

1. There are two mirror walls, facing one another, with gaps so that you can look in. The mirror walls can be swung a bit so that they do not have to hang parallel to one another. Red light in between the mirrors comes from a set of LEDs (light emitting diodes) fixed to the side edges of the mirrors on your side.



2. Whenever you see something reflected in a mirror, the light has travelled to the mirror and back to your eye, so the object seems to be the total distance the light has travelled away from you. In the exhibit, light from the LEDs can enter your eye after one reflection, three reflections, five reflections, etc. The mirrors are 50cm apart, so that the nearest image you see will be 1 metre away from you, behind the opposite mirror. There will then be further images 2 metres, 3 metres, 4 metres, etc. away from you, stretching into the distance.



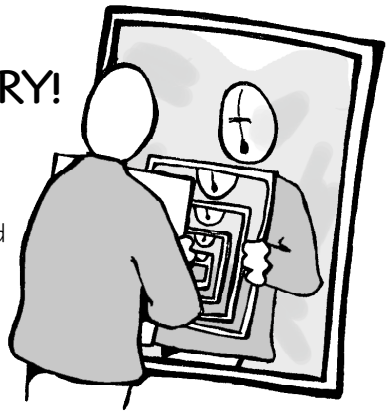


3. When the mirrors are parallel, the lines of LED images will be straight, like the line of cats' eyes on a straight road. If you angle the mirrors a little, it makes the "road" seem to go round a bend, over a hill or across a valley.

4. The images get fainter and fainter with distance, because light gets absorbed by the glass of the mirrors. If the mirrors were front-silvered (or aluminised), they would remain brighter and you would see a much longer sequence.

THINGS YOU CAN TRY! YOURSELF

- Hold a small mirror in front of another and look down the corridor of reflections. The corridor can be straight or curved, depending on the angle between the two mirrors



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