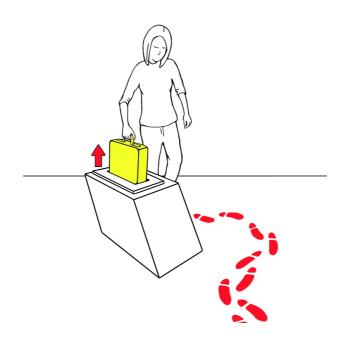
## **Crazy Case**

Can you manage to keep the suitcase straight while you turn?



Carry the case round in a circle – turning the case left, then turning it right.

How does the case behave?

Turn the case quickly, then slowly. Does this make a difference?

The case seems to have a mind of its own! When you try to turn it, it "resists" your movement and lifts itself up sideways. The secret is that it harbours a heavy, flat disc inside – this is a flywheel spinning at up to 3000 revolutions per minute. The huge angular momentum of this flywheel keeps its spin axis stable in much the same way as a spinning top or a gyroscope. If you tilt the spin axis, the case tries to compensate for this tilting, and swerves sideways.