# MINIROBOTICS 2 Stop and brake mechanisms

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### **BRIEFING**

### Lesson objective

• The objective of the lesson is to learn how the brake mechanism works with the help of a ratchet wheel and a pawl.

# Briefing: Stop and brake mechanisms

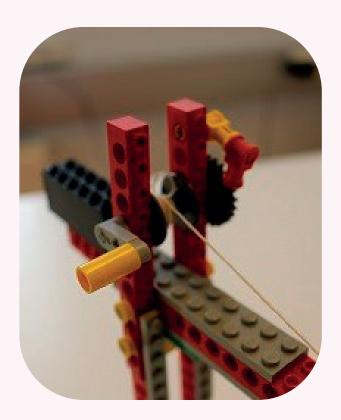
## Lesson fact

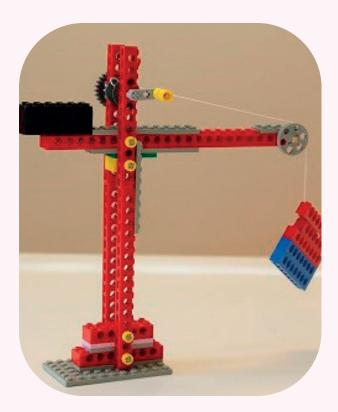
Sometimes it is necessary to stop a gear, e.g. a gear in a crane's winch, so that the load does not fall during the transfer. A ratchet can be used to help with this.

The ratchet in the example has two mechanisms: a freely rotating gear, and a locking pawl. When the gear rotates in the other direction, it is allowed to rotate freely, but when the direction of the gear is changed, the pawl locks the gear.

# Lets try

Let's build a ratchet wheel with a pawl according to the model. Attach a ratchet to one of your structures!



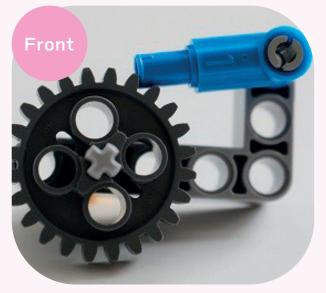


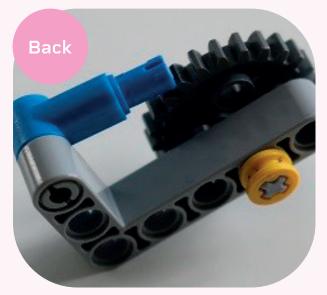


# Lesson exercise









Let's try: Connect the ratchet as a brake to one of your structures