

# Gearbox

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## What is a Gearbox?

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A gearbox is an assembly consisting of two or more gears that is used to provide torque and speed conversions from a rotating power source like the motor to another device such as our robot.

**Torque:** Is a turning force that provides greater power to the device that is attached to the gearbox. An increase in torque is usually accomplished through a decrease in speed.

### Where are gearboxes used?

Typically in mechanisms that require force to lift/push a load - For eg in a car the engine is rotating at a high speed that is not suitable to starting the motion of a car from rest - because the car is so heavy a large amount of force is required. This is obtained by using a gearbox.

