

# 10

## the bike: an NXT bicycle that can steer and move by itself

In this chapter you will learn how to build a bicycle (with training wheels) that moves forward and backward and steers to avoid obstacles.

To maintain symmetry and balance, we'll use two motors to power the rear wheel of the Bike. To improve steering and maneuverability, a third motor and a gear train are also positioned at the rear, reducing the weight on the front wheel. An array of worm gears, bevel gears, and axles transfer the motor's power from the rear to the front of the Bike. Two stabilizers act as training wheels to prevent the Bike from falling over.

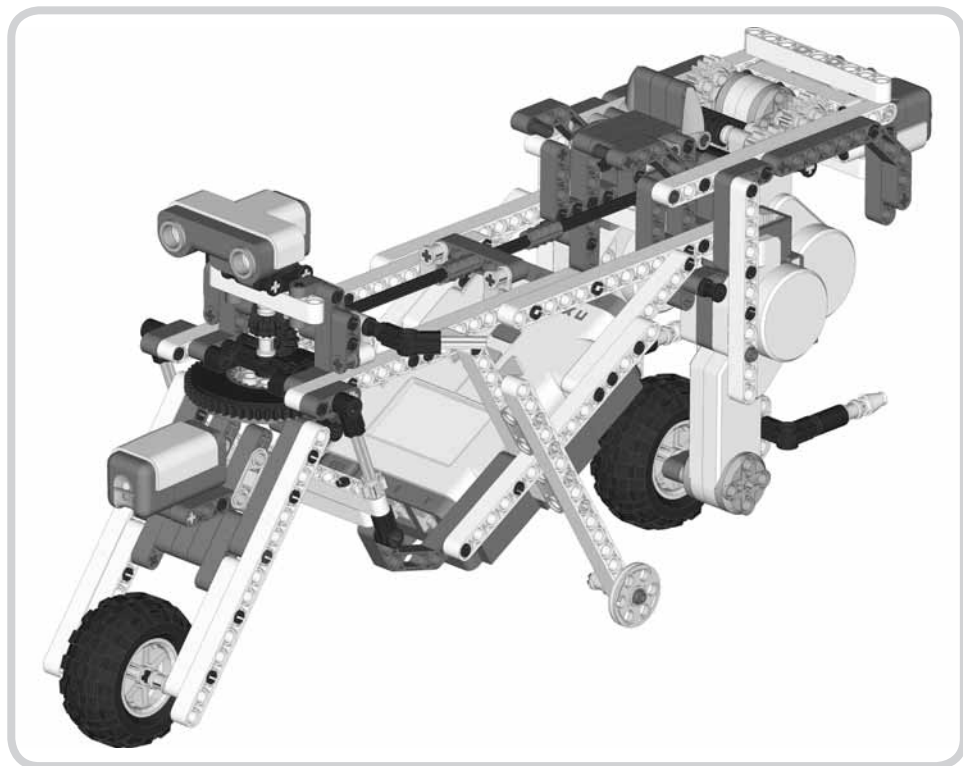


Figure 10-1: The Bike

# building the bike

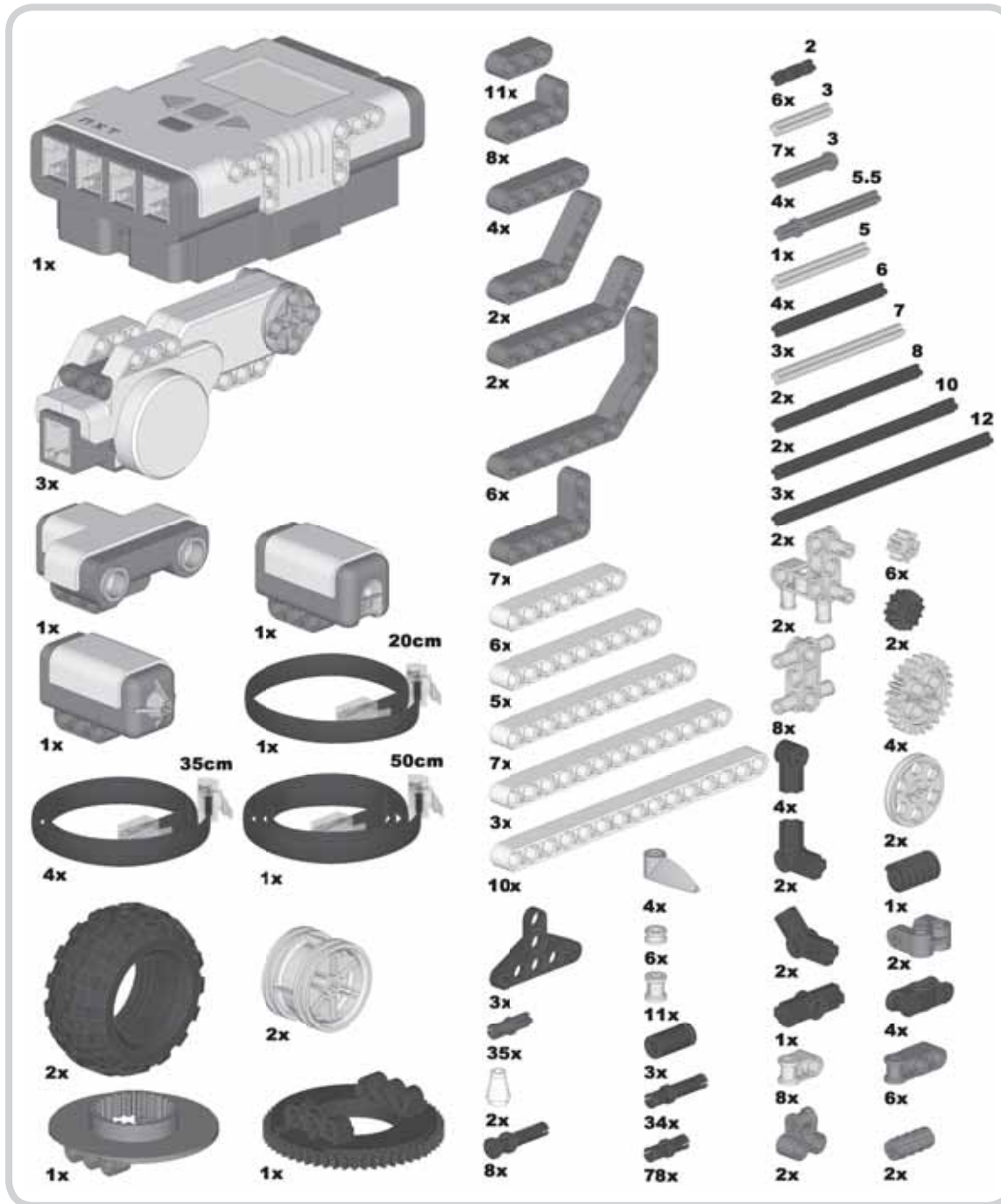


Figure 10-2: Bill of Materials

Let's start with the front of the Bike.

1



2



3



4



5



7



6



8

