Figure 4.28   Composition relationship between a Robot and its parts

A more complex example of polymorphism

Figure 4.29 shows an inheritance hierarchy of the Robot class, and Figure 4.30 shows the Java code for ButlerRobot, one of the subclasses in the hierarchy.

In this code line 12 is the operation part of the process perform(). Line 14 is the method.

In the inheritance hierarchy shown in Figure 4.29 the perform() operation appears in all of the classes in the hierarchy. The method for perform() is undefined in the classes Robot, Humanoid, DomesticRobot and AlienRobot. Each of the other classes in the hierarchy has a different method for perform() (see Table 4.4).
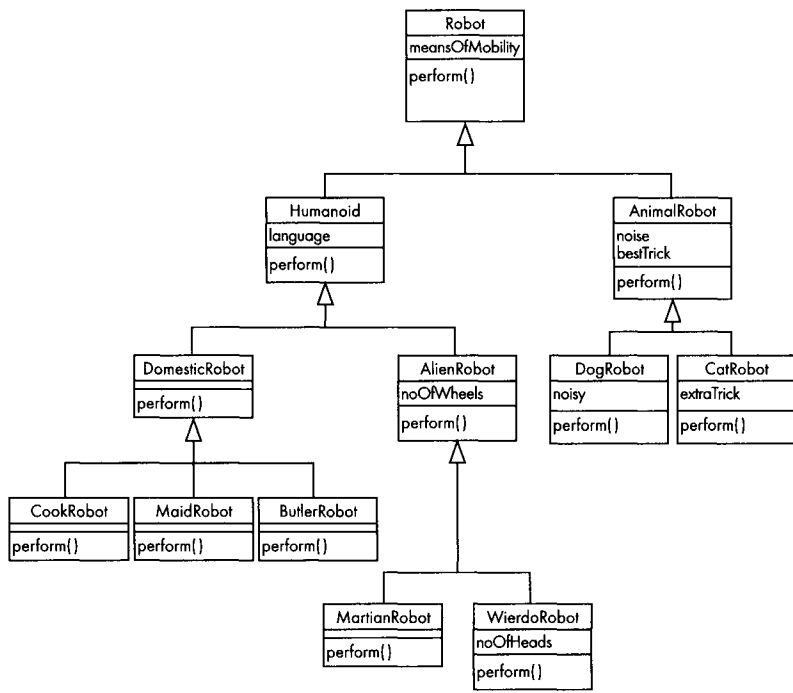

Figure 4.29   The Robot hierarchy