

Important info about NXT Motors – Move blocks versus Motor blocks.

Experienced NXT programmers have learned (often the hard way) that NXT motors can be quite challenging to control, particularly if you care about the robot doing the same thing each time you run it.

You may also have noticed in the Complete programming palette, in the Action flyout there is a block called **Motor**. In this screen shot, you see a Move block on the left and Motor block on the right.



They both control motors, but there are important differences:

About Move blocks:

1. If you want to drive in a straight line, Move blocks (with two motors controlled) are the best – they keep track of the behavior of the two motors together to produce a straight run.
2. Using Move blocks to control multiple motors makes your program more compact – taking up less screen space and memory.

About Motor blocks:

1. If you want controlled, accurate arcs, Motor blocks are the best. The Motor block has the capacity for very precise control over the rotational speed of the motor, this makes your turns very pure (*as long as you enable **Control: Motor Power**. More about this in project 4*).
2. The Motor block controls only one motor at a time; you need one block per motor.
3. The Motor block lets you “ramp” the motor speed up or down in a manner you control, providing smooth starting and stopping.

In many of the projects to come, you may choose which one to use.

It's worth experimenting, you'll quickly find out which is better in your application.