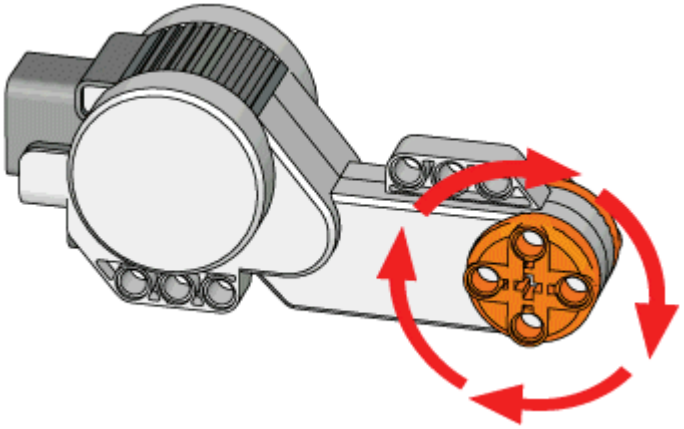
nMotorEncoder

- This is a command that reads or sets the "*position value*" of a motor.
- Each motor in your kit can be turned a number of degrees. The **nMotorEncoder** value is the number of degrees it has been turned.
- **Range is -32768 to 32767**. This means it will "wrap" after about 90 revolutions.



```
nMotorEncoder[motorB] = 0;

// reset the Motor Encoder of Motor B


while(nMotorEncoder[motorB] < 360)

// while the Motor Encoder of Motor B has not yet
reached 360:
```

The NXT motor is a "servo motor" we can control and monitor its position, speed, and direction precisely.

Buttons NXT

There are four buttons on the NXT front panel. The LEFT, ENTER, and RIGHT buttons are on the top row and the EXIT button is on the second row.

Normally, when a program is running, the LEFT and RIGHT buttons are used to toggle between various standard displays. And the EXIT button is used to stop execution of the user program. These characteristics can be overwritten so that button actions can be controlled within a running application program. There are several sample programs (e.g. Centipede, Tetris) included in the ROBOTC distribution that utilize application program control over buttons.

nNxtButtonPressed

Contains the number (0 to 3) of the button that is currently depressed.

-1 indicates no button is currently pressed.
0 = Gray Rectangle button.
1 = Right Arrow button.
2 = Left Arrow button.
3 = Orange Square button.

Note that only one button press can be recognized at a time. This is a limitation in the NXT hardware. It is unable to recognize multiple button presses.

```
if(nNxtButtonPressed == 1) // If the current pressed
button is 1 (the Right Arrow):
{
nxtDisplayCenteredBigTextLine(3, "RIGHT ARROW"); //
Display on line 3, a big, centered, message.
}
```