

parameters – Parameters and Constants

Constant parameters/arguments for the Pybricks API.

class Port

Port on the programmable brick or hub.

Motor ports:

A

B

C

D

Sensor ports:

S1

S2

S3

S4

class Direction

Rotational direction for positive speed or angle values.

CLOCKWISE

A positive speed value should make the motor move clockwise.

COUNTERCLOCKWISE

A positive speed value should make the motor move counterclockwise.

<code>positive_direction =</code>	Positive speed:	Negative speed:
<code>Direction.CLOCKWISE</code>	clockwise	counterclockwise
<code>Direction.COUNTERCLOCKWISE</code>	counterclockwise	clockwise

By default, the positive direction is set as clockwise. Refer to [this diagram](#) to see which direction this is for EV3 motors.

class Stop

Action after the motor stops: coast, brake, or hold.

COAST

Let the motor move freely.

BRAKE

Passively resist small external forces.

HOLD

Keep controlling the motor to hold it at the commanded angle. This is only available on motors with encoders.

The following table show how each stop type adds an extra level of resistance to motion. In these examples, `m` is a `Motor` and `d` is a `DriveBase`. The examples also show how running at zero speed compares to these stop types.

Type	Friction	Back EMF	Speed kept at 0	Angle kept at target	Examples
Coast	•				<code>m.stop()</code> <code>m.run_target(500, 90, Stop.COAST)</code>
Brake	•	•			<code>m.brake()</code> <code>m.run_target(500, 90, Stop.BRAKE)</code>
	•	•	•		<code>m.run(0)</code> <code>d.drive(0, 0)</code>

Type	Friction	Back EMF	Speed kept at 0	Angle kept at target	Examples
Hold	•	•	•	•	<pre>m.hold()</pre> <pre>m.run_target(500, 90, Stop.HOLD)</pre> <pre>d.straight(0)</pre> <pre>d.straight(100)</pre>

class Color

Light or surface color.

BLACK

BLUE

GREEN

YELLOW

RED

WHITE

BROWN

ORANGE

PURPLE

class Button

Buttons on a brick or remote:

LEFT_DOWN

DOWN

RIGHT_DOWN

LEFT

CENTER

RIGHT

LEFT_UP

UP

BEACON

RIGHT_UP

LEFT_UP	UP/BEACON	RIGHT_UP
LEFT	CENTER	RIGHT
LEFT_DOWN	DOWN	RIGHT_DOWN