
roboarm Documentation

Release 1.0

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Python library for controlling owi robotic arm edge.

Contents:

Installation

You can install stable version from pypi:

```
pip install roboarm
```

Or developer version from git:

```
git clone git@github.com:nvbn/roboarm.git
cd roboarm
python setup.py develop
```


2.1 Arm class

class `Arm` (***config*)

Create arm controlling instance. *config* - usb device configuration, by default:

```
vendor = 0x1267
bmRequestType = 0x40
bRequest = 6
wValue = 0x100
wIndex = 0
```

Usage:

```
from roboarm import Arm
```

```
arm = Arm()
```

2.2 Grips

`arm.grips.open` (*timeout=1*)

Start opening device grips and stop after timeout. If *timeout=None* don't stop.

`arm.grips.close` (*timeout=1*)

Start closing device grips and stop after timeout. If *timeout=None* don't stop.

`arm.grips.stop` ()

Stop current action.

Example usage:

```
from roboarm import Arm
import time
```

```
arm = Arm()
```

```
# open grips for 2 seconds:
```

```
arm.grips.open(2)
```

```
# close grips, wait 2 seconds and stop:
```

```
arm.grips.close(None)
time.sleep(2)
arm.grips.stop()
```

2.3 Wrist

```
arm.wrist.up(timeout=1)
    Start moving up device wrist and stop after timeout. If timeout=None don't stop.
arm.wrist.down(timeout=1)
    Start moving down device wrist and stop after timeout. If timeout=None don't stop.
arm.wrist.stop()
    Stop current action.
```

Example usage:

```
from roboarm import Arm
import time

arm = Arm()

# up wrist for 2 seconds:
arm.wrist.up(2)

# down wrist, wait 2 seconds and stop:
arm.wrist.down(None)
time.sleep(2)
arm.wrist.stop()
```

2.4 Elbow

```
arm.elbow.up(timeout=1)
    Start moving up device elbow and stop after timeout. If timeout=None don't stop.
arm.elbow.down(timeout=1)
    Start moving down device elbow and stop after timeout. If timeout=None don't stop.
arm.elbow.stop()
    Stop current action.
```

Example usage:

```
from roboarm import Arm
import time

arm = Arm()

# up elbow for 2 seconds:
arm.elbow.up(2)

# down elbow, wait 2 seconds and stop:
arm.elbow.down(None)
```

```
time.sleep(2)
arm.elbow.stop()
```

2.5 Shoulder

```
arm.shoulder.up(timeout=1)
```

Start moving up device shoulder and stop after timeout. If *timeout=None* don't stop.

```
arm.shoulder.down(timeout=1)
```

Start moving down device shoulder and stop after timeout. If *timeout=None* don't stop.

```
arm.shoulder.stop()
```

Stop current action.

Example usage:

```
from roboarm import Arm
import time
```

```
arm = Arm()
```

```
# up shoulder for 2 seconds:
```

```
arm.shoulder.up(2)
```

```
# down shoulder, wait 2 seconds and stop:
```

```
arm.shoulder.down(None)
```

```
time.sleep(2)
```

```
arm.shoulder.stop()
```

2.6 Base

```
arm.base.rotate_clock(timeout=1)
```

Start rotating device clockwise and stop after timeout. If *timeout=None* don't stop.

```
arm.base.rotate_counter(timeout=1)
```

Start rotating device counterclockwise and stop after timeout. If *timeout=None* don't stop.

```
arm.base.stop()
```

Stop current action.

Example usage:

```
from roboarm import Arm
import time
```

```
arm = Arm()
```

```
# rotate clockwise for 2 seconds:
```

```
arm.base.rotate_clock(2)
```

```
# rotate counterclockwise, wait 2 seconds and stop:
```

```
arm.base.rotate_counter(None)
```

```
time.sleep(2)
arm.base.stop()
```

2.7 Led

`arm.led.on(timeout=None)`
Turn led on and stop after timeout. If `timeout=None` don't stop.

`arm.led.off(timeout=None)`
Turn led off and stop after timeout. If `timeout=None` don't stop.

`arm.led.stop()`
Stop current action.

Example usage:

```
from roboarm import Arm
import time
```

```
arm = Arm()
```

```
# turn led on:
arm.led.on()
```

```
# turn led off:
arm.led.off()
```

```
#turn led on for 2 seconds:
arm.led.on(2)
```

Indices and tables

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