

[RightHand Labs](#)[ReFlex Documentation](#)[Contact](#)

8) Getting under the hood (Takktile)

[Introducing the ReFlex Hand](#) » [Reflex Documentation](#) » 8) Getting under the hood (Takktile)

There are a couple parameters that you can change to affect the behavior of the hand. This tutorial will tell you where to find them and what they are.

reflex_takktile.yaml

Inside the [yaml](#) folder in the [reflex](#) package you'll find the `reflex_takktile.yaml` file. Inside of it there are a number of things that can be changed to affect the hand behavior.

```
Branch: h3 ▾ reflex-ros-pkg / reflex / yaml / reflex_takktile.yaml

eschneider1992 15 days ago Motors back off now when overloaded
1 contributor

24 lines (20 sloc) | 0.53 kB

1 reflex_takktile_f1:
2   default_motor_speed: 3.0
3   max_motor_speed: 3.5
4   max_motor_travel: 3.6
5   overload_threshold: 350.0
6
7 reflex_takktile_f2:
8   default_motor_speed: 3.0
9   max_motor_speed: 3.5
10  max_motor_travel: 3.6
11  overload_threshold: 350.0
12
13 reflex_takktile_f3:
```

- `default_motor_speed`: This is the default speed the motors travel at when given a position command.
- `max_motor_speed`: When commanded to a higher speed than this, the code will clamp the command down to this max speed. The motors can't physically travel much faster than this.
- `max_motor_travel`: Maximum position in radians that the motors can be commanded to.
- `overload_threshold`: This is the motor load at which the hand interrupts a command and loosens. If you need the hand to grip harder this can be adjusted, but be careful not to overheat the motor or physically damage the fingers when the motors grip with more force.

reflex_driver.launch

Inside of the [launch](#) folder in the [reflex_driver](#) package you'll find the `reflex_driver.launch` file. Inside is the default sensor threshold, which can be adjusted so that the sensors start off with a different default contact threshold.

```
Branch: h3 ▾ reflex-ros-pkg / reflex_driver / launch / reflex_driver.launch

eschneider1992 13 days ago Small fixes to errors in the motor.py files
2 contributors

10 lines (8 sloc) | 0.495 kB

1 <launch>
2   <param name="default_contact_threshold" value="20" />
3   <param name="yaml_dir" value="$(find reflex_driver)/yaml" />
4   <rosparam file="$(find reflex_driver)/yaml/motor_constants.yaml" com
5   <rosparam file="$(find reflex_driver)/yaml/finger_calibrate.yaml" co
```

Bagfiles

Finally, it might be of interest that each time the hand code is run it saves the hand data in a rosbag file. Inside of the `reflex` package the latest run is stored in the `bagfiles` folder. The data is overwritten each time the hand is run, so if you want to save certain runs you should rename or otherwise move them.

To read more about ROS bagfiles, check out the [ROS documentation](#). They can be used to save data and play it

back later.

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