Commands Dictionary

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# Convention

* Every CMD when sent is assigned an ID of 0x01.
* Wheels are numbered clockwise starting from front-left wheel (FL: 1, FR: 2, RR: 3, RL: 4).
* On each wheel, driving rotation axis is pointing outwards. This means that in order to move forward, + CMD will be sent to the left wheels and - CMD will be sent to the right wheels.
* Steering axis are pointing downwards. This means that +CMD will steer wheels to the right, whereas -CMD will steer wheels to the left.
* Left and right side commands are differentiated based on the USB port they are sent through. */dev/usb0* = left side, */dev/usb1* = right side.

# Dictionary

*Name | CMD | LEN (bytes) | OPT (units) [type]*

LIGHTS\_ON | 0x01 | 0 |

LIGHTS\_OFF | 0x02 | 0 |

SETSPEED\_FRONT | 0x03 | 4 | Speed (deg/s) [float]

SETSPEED\_REAR | 0x04 | 4 | Speed (deg/s) [float]

SETSTEER\_FRONT | 0x05 | 4 | Angle (deg) [float]

SETSTEER\_REAR | 0x06 | 4 | Angle (deg) [float]

VAL\_SPEED\_FRONT | 0x07 | 4 | Speed (deg/s) [float]

VAL\_SPEED\_REAR | 0x08 | 4 | Speed (deg/s) [float]

VAL\_ANGLE\_FRONT | 0x09 | 4 | Angle (deg) [float]

VAL\_ANGLE\_REAR | 0x0A | 4 | Angle (deg) [float]

VAL\_CURR\_FRONT | 0x0B | 2 | ADC\_out (bits) [uint16]

VAL\_CURR\_REAR | 0x0C | 2 | ADC\_out (bits) [uint16]

VAL\_ANGLE\_RCK | 0x0D | 4 | Angle (deg) [float]

# Notes

*Look at the config file cmdlist.yaml*