

Robot

Raspberry
camera

raspicam_node

/raspicam_node/image/compressed

red_perception

redX

dist

clever_bull_controller

blueX

blue_perception

cmd_vel

motor_driver
(RosPy)

motor_driver
RosPy node
translates
cmd_vel in PWM
signal [-255,255]
and send it to
Arduino through
serial port

Arduino
(motor_driver.ino)

Reads from Serial
and sends signals
to the two motor
driver boards

RR Velocity

RR Wheel

RL Wheel

Front Right Wheel (...)

Front Left Wheel (...)

RR Velocity

ENA IN1 IN2 IN3 IN4 ENB

RL Velocity

(H,L) ↻ CW
(L,H) ↻ CCW
(IN1,IN2) for RL
(IN3,IN4) for RR

RL and RR
velocities are
PWM signals
[0 , 255]

Rear Left

Rear Right

Jumper for the 5V Regulator
Motor VCC 5V - 35V
Ground
+5V In/ Out
5V Regulator

How To
MECHATRONICS
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