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FAQ on Robomaster EP Controls

A guide to achieve or address specific scenarios

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Overview

1. Control Travel Speed
2. LED Control
3. Arm Control

Control Travel Speed

- To control travel speed of Robomaster EP by:

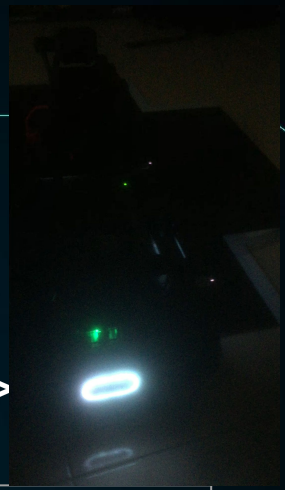
  vxy <speed> and vz <speed> to move command
  - vxy = speed in m/s at which the EP moves left-right-forward-backward **(not more than 0.3m/s)**
  - vz = speed in degree/s at which the EP rotates **(not more than 10)**

- E.g. In DSTA's API:

• Move to certain distance	• robot.move('x 1 vxy 0.3')
• Rotate 90 degree clockwise	• robot.move('z 90 vz 10')
• Gradually rotate 90 while moving forward (curve)	• robot.move('x 0.3 z 90 vxy 0.3 vz 10')
• Move forward	• robot.forward(0.3)

- Rotate with robot.rotate cannot set speed. Must not use robot.rotate if you want to control rotation speed.

LED Control



- To control LED color and effect using this SDK string:

  led control comp <comp_str> r <r_value> g <g_value> b <value> effect <effect_str>, where the effect remains after the instruction:

• <comp_str> refers to the LED on robotmaster	• all → all LED, • top_all → all LED on the gimbal • Bottom_all → all LED on the chassis
• color of LED	• <r_value>,<g_value>,<b_value> : 0 – 255
• <effect>	• one of these → solid, pulse, blink, scrolling
• robomaster to show judge object detected	• robot._sendcommand('led control comp bottom_all r 255 g 0 b 0 effect scrolling')
• Switch back to white after showing judge or during start of challenge	• robot._sendcommand('led control comp bottom_all r 255 g 255 b 255 effect solid')

Arm Control

- To move the robot arm relative to its current position:

  robot.movearm() function to x_dist or y_dist

  Note: The arm's current position is 0,0.

- To move robot arm with respect to the arm power-on position (RoboMaster SDK):

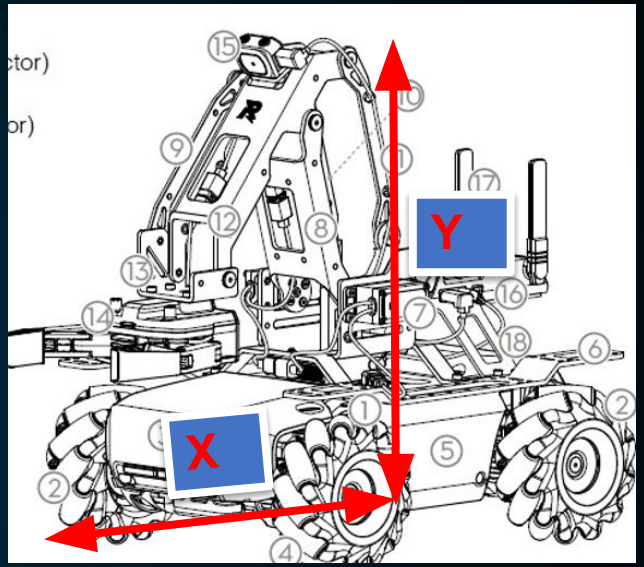
  'robotic_arm moveto x <x_dist> y <y_dist>'

  Note: Your robomaster are calibrated to the lowest point of X and Y but that is not '0,0'.

- To find out the arm position (RoboMaster SDK):

  SDK 'robotic_arm position ?'

  Note: That returns x, y. Do note the return value is of accuracy of +/-5 to +/-10.



CAUTION:
DO NOT physically move the arm by force when the robot is executing an arm instruction or powered on. This action will damage the servo and is not covered under warranty.