UGOT Commands

ugot.UGOT()
Instantiates the robot controller object and sets up its internal state for all subsequent API calls.

got.initialize(ip_address)
Opens a network connection to the robot at the given IP (e.g. '192.168.1.189').

got.load_models(model_list)
Loads one or more perception models (here, `['apriltag_qrcode']`) so the robot can detect AprilTags or QR codes.

got.mechanical_joint_control(pos1, pos2, pos3, speed)
Moves the specified arm joint(s) to target positions at the given speed. Joint 1 is the closest joint to the main body while joint 3 is the furthest.

got.mechanical_clamp_close()
Closes the gripper (clamp) to grasp an object.

got.mechanical_clamp_release()
Opens the gripper to release whatever it's holding.

got.screen_clear()
Clears any text or graphics currently shown on the robot's onboard display.

got.screen_display_background(color_id)
Fills the display background with a solid color (e.g. `3` = red, `6` = green) as a status indicator.

got.mecanum_move_speed_times(direction, speed, distance, units)
Drives the mecanum wheels in one of four cardinal directions at the specified forward/backward and side-to-side speeds for a set time.

- Direction: 0 is forwards, 1 is backwards
- Speed: 5-80 in cm/s
- Distance: Integer value representing either seconds or centimetres
- Units: 0 is seconds, 1 is centimeters

got.mecanum_turn_speed_times(direction, speed, angle, units)
Rotates the robot in place by a given angle at a given speed, repeated the specified number of times.

- Direction: 2 is left, 3 is right
- Speed: 5-280 in degrees/s
- Distance: Integer value representing either seconds or degrees
- Units: 0 is seconds, 2 is degrees

got.mecanum_move_xyz(x_speed, y_speed, z_speed)
Sends a one-shot velocity command in the robot's X (strafe), Y (forward), and Z (rotation) axes.

got.mecanum_stop()
Immediately halts all mecanum wheel motion.

got.get_qrcode_apriltag_total_info()
Returns a list containing: the ID, centre x value, centre y value, height, width, area, distance (assuming 5x5), distance (assuming 7x7), distance (assuming 10x10), pose angle x, pose angle y, pose angle z