MOVO ICRA : CHEAT SHEET

MAKE SURE YOU CHECKOUT TO feature/xbox_controller branch for the ICRA demo

Booting MOVO: To boot movo, press on the power button on the HMI (back of MOVO).

E-Stop: The e-stop is a safety measure. Press it ONLY if Movo will collide with an object or someone, or can harm someone. Beware, the arms of Movo will fall on the ground, catch them before they do.

Connect with MOVO:
Open your laptop and connect to Movo via
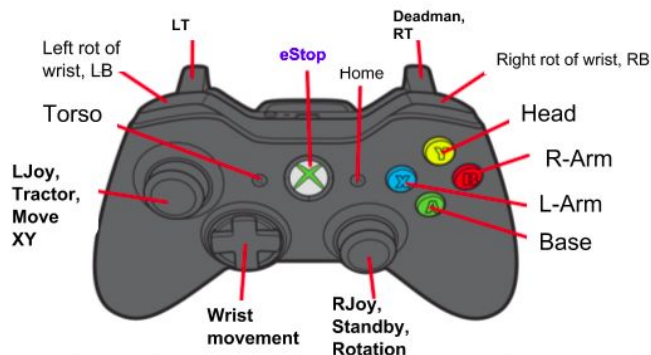
Wi-Fi: ProtoMovoWifi
Password: Welcome00

Open a terminal (Ctrl + Alt + T) and type

ssh movo@movo2

Connecting the Joystick:
Connect the USB dongle to the HMI. Press the central button of the Xbox Controller. When it shows a light only on quadrant #1. It means you are connected to the Movo.

You can now drive around Movo with the Joystick.

Mode	Command	Mode	Command	Mode	Command
L-Arm/R-Arm Rotate wrist	LJ button + (X or B) LB /RB (hold)	Torso	Arm mode: Hold back button + hold RT + RJ (up/down)	Close gripper Open gripper	Arm mode + Tractor(hold) Arm mode + Standby(hold)
Base	LJ button + A	Move	RT (hold) + LJoy and/or RJoy	Home	Start button
Head	LJ button + Y	Wrist	Arm mode: cross-key	eStop	Power button

Changing demos:

Press and hold LT button while pressing one of these buttons, Movo should tell you what mode you are in:

LT(hold) + A	Tuck the robot (replace the arms)
LT(hold) + B	Face tracking recognition (hello demo)
LT(hold)+ X	Dance invitation (no music, asks to dance directly)
LT(hold) + Y	Launch the assisted teleop (avoid obstacles, please wait ~15 seconds before moving around)

You can teleop in any mode, please be sure to tuck the arms first so you don't collide with anything.

TroubleShooting:

When Movo boots up normally, it performs a homing sequence and goes back to the tuck position.

If it doesn't do that (wait 3 minutes to be sure), it means that Movo has an internal error, normally due to the arms.
        Open your computer:
                        Type
                                ssh movo@movo2

        Type:
                movochk (will tell you what failed)
                movostop
                (wait 3 sec)
                movostart (or roslaunch movo_bringup movo_system.launch)

If it doesn't boot up again, restart Movo manually.

If it still doesn't (Call an FAE).
        Connect to the arm via the SDK (disconnect the ethernet cable) and make sure the arm is set as left or right depending on which arm you are looking. Also, in monitoring, check that you get values from all actuators and try to move some joints with the joystick.

Note:

    The demo (roslaunch movo_class ICRA_demo.launch) is launched automatically in the movo2.launch (movo_robot/movo_bringup) code. It means that at boot up, the demo should work.

    If it doesn't work, try debugging movo by looking if the node (icra_mapping) is launched.

BEFORE ICRA:

    Install the skin, fix the HDMI cable, fix the green light, tighten the screws(not too much), test the arms, make sure everything works.