

Calibration Procedure

We assume that the whole system works well, but we don't know the calibration position of the robot handle so we can't move to that position and run the reset program.

The correct calibration procedure:

1. Reset at home position $(0, -43.5, 51.1)$ (Remember set the baseXYZ and angle in calibration file to ZERO), if you do so the right pose of arm should be like the following:

The arm that is connected to the base should be parallel to the ground.
The two arms should be perpendicular to each other.

2 Move to any position that is stable and you want to do reset later, write down the angle (use utility to output it in degree)

3. Compare the angle (degree) with the default one $(0, 0, 90)$, write down the difference. (e.g. if the angle is $(-88, 6, 96)$, the difference is $(-88, 6, 6)$)

4. Convert the difference angle to radian and write down to the calibration file.

5. Done!

Note that as we keep the baseXYZ $(0, 0, 0)$ which means we are not changing the original point, so if you move it to the default calibration position, the position output should be $(0, -43.5, 51.1)$
