

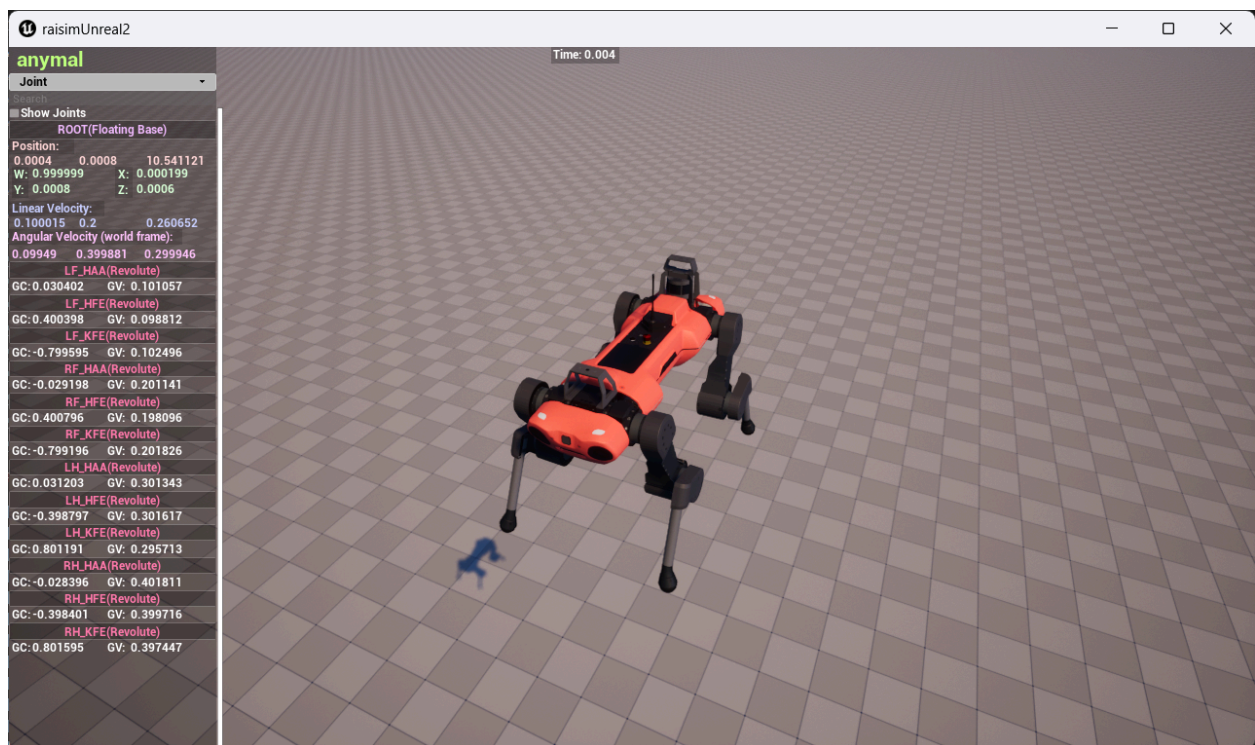
# KAIST ME553 Robot Dynamics

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## Exercise 2

You will be using the ANYmal model for this exercise. You should download or clone the exercise repo here: [https://github.com/jhwangbo/ME553\\_2024](https://github.com/jhwangbo/ME553_2024). When you run raisimUnreal2.exe and exercise\_2.exe, you should see this screen. Make sure that “autoconnect” is checked on raisimUnreal because the whole simulation process is just 2 seconds.

Your goal is to write a function that computes the linear and angular velocity of the “LH\_shank\_fixed\_LH\_FOOT” given any joint angles and joint velocities. All velocities should be expressed in the world frame. You can find the description of the robot in “/anymal\_c/urdf/anymal.urdf”. You can find about the URDF convention here: <http://wiki.ros.org/urdf/XML>



**Deliverable:** A single header file named “exercise\_2\_STUDENTID.hpp”. Use the provided template. You should replace “STUDENTID” with your real student id number. Submit it on KLMS.

**Deadline:** by the end of 11th of April, 2024