KAIST ME553 Robot Dynamics

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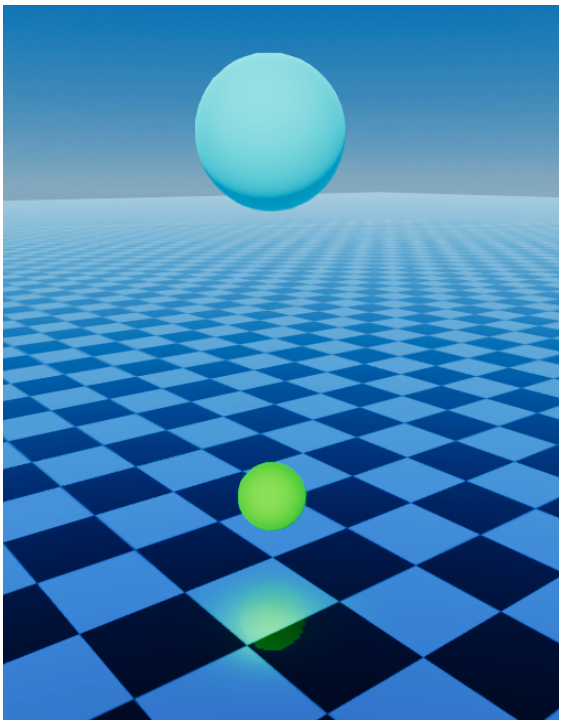
Exercise 7

You are going to implement a hard contact simulator for two balls and ground. We are only working with balls and flat ground because it is easy to compute the collision points.



It is nearly impossible to make it look realistic without getting all the details right. So I am going to grade it based on the motions of the balls.

Even though the balls are not an articulated system, points on a ball have an associated Jacobian. So the simulation procedure is identical to the robot case except that it is much simpler.

Do not change the initial states! Follow the ones provided in “exercise_7.cpp”.

Deliverable: A single header file named “exercise_7_STUDENTID.hpp”. Use the provided template. You should replace “STUDENTID” with your real student id number. Submit it on KLMS.

Deadline: 5pm, 20th May