

## Exercise 3 – RBD Dynamics (light and heavy)

**DATE DUE:** see website

### Goals:

This assignment will focus on the student using DOPS to create a realistic animation of boxes (or some other object) being hit by an object and reacting as if they are empty and then repeated as if they are full. The goal is to produce **believable** movement.

For those of you experienced with RBDs, you may choose a more complex project but it must be pre-approved. For those of you with less experience, please select a simpler object such as a box.

### Requirements:

Create two simulations – one with heavy boxes and one with light or empty boxes. (You can use separate simulations and separate hip files if convenient).

### Considerations:

This is an introductory exercise for the student to become familiar with RBD in Houdini. The goal is to make the animation as believable as possible.

You may need to use two hip files, one for light and one for heavy.

### Submissions guidelines:

The exercise will be submitted as a directory, **S24\_V428\_E3\_LastnameFirstname\_RBD/**

This directory should contain the following:

- **S24\_V428\_E3\_LastnameFirstname\_RBD.hip** (or two, append name with light/heavy)
- **S24\_V428\_E3\_LastnameFirstname\_RBD.pdf** breakdown. Please include a general description to a viewer as well as a more technical description to someone looking at your file
- **S24\_V428\_E3\_LastnameFirstname\_RBD.mp4** containing a minimum of 10 seconds of animation – can be a **flipbook**. It must include your reference with url.

**Important note:** Adherence to these naming and format conventions constitutes 5% of your grade. This is the naming convention that will be used for all exercises and projects. Failure to comply to naming conventions will also affect your participation grade.

### Grading:

Proper use of dynamics and learning Houdini's DOP network is the emphasis.

The grading of this exercise is structured as follows. Meeting the minimum specifications, 80%.

To move your grade above 80% go beyond the specifications, demonstrate exploration and understanding, excellent look development. Keep in mind a less complex set up that is properly executed is better than one that is too complicated and not completed. See rubric.

Be creative, have fun.