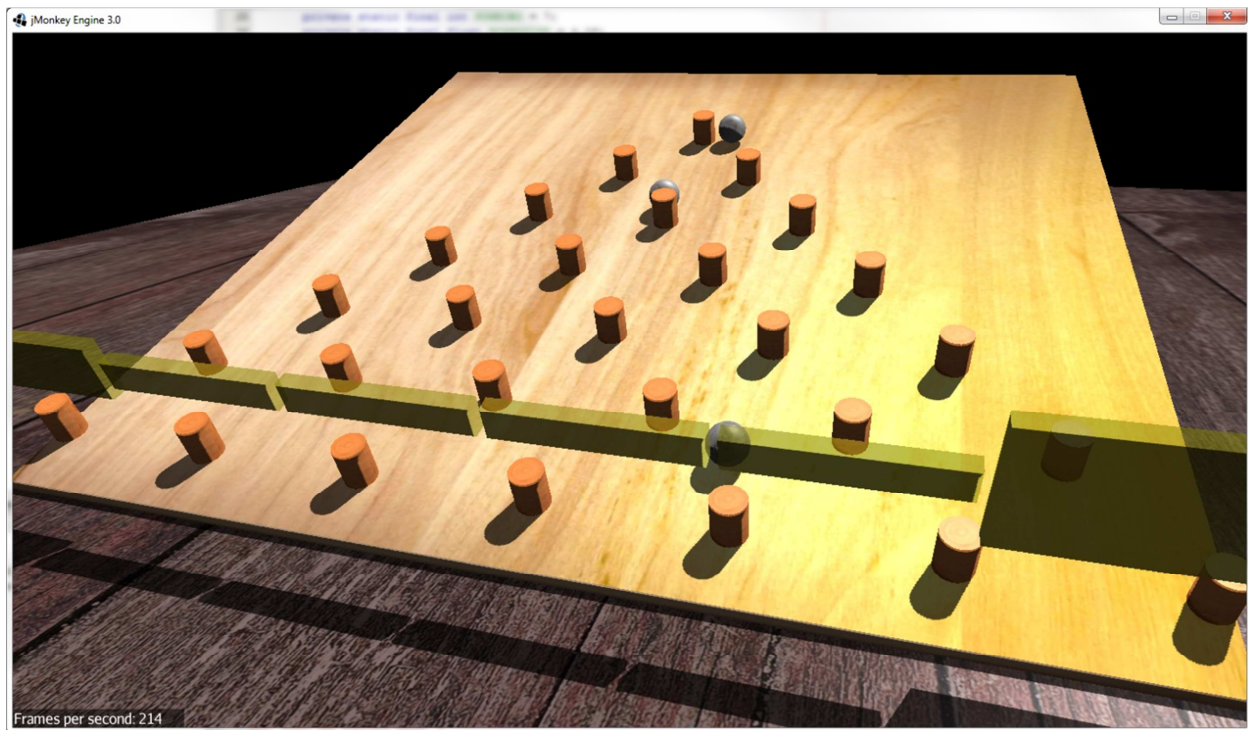


## Pegboard: A Virtual Reality Physics Experiment



### The Setting:

This is a relatively simple yet rewarding assignment: program a virtual reality setting that simulates the famous pegboard experiment. The experiment consists of a tilted board with pegs in a pyramid-shaped distribution. Marbles are dropped at the top of the board, near the center. They roll down the board, hitting the pegs, eventually passing through one of the gaps between the pegs in the bottom row. The experiment determines the frequency how often each gap is passed. Since the marble (in the real world setting) never drops down twice in exactly the same position, this results in a certain random distribution of gap-hits.

Note:

The real experiment is set up in a way that the resulting distribution is Gaussian. However, this depends on many factors: size of pegs, distance between pegs, tilt of board, mass of marbles, size of marbles, restitution, just to mention a few. Hence, most likely you won't get a Gaussian distribution. That's not necessarily a programming error!

## Help

You start with fully programmed graphical board, only the physics are missing.

## Your Task

Examine the given JMonkey project, add the physics to complete the project.

The outcome must show the number or distribution of gap-hits in any way (a simple print is sufficient).

To count the gap-hits, you MUST use a GhostControl attached to the target bins (see project).