



## Concept:

Random atomic motion first noted by Brown in 1827 is modeled here by the collisions of steel balls with themselves and the easily observed erratic motion of a larger wooden disk impinged on by the steel balls. Details about Einstein's elucidation of this phenomena and subsequent theoretical refinement can be found at [http://en.wikipedia.org/wiki/Brownian\\_motion](http://en.wikipedia.org/wiki/Brownian_motion).

## Equipment:

1. Box of 15 Small Balls
2. Wooden Disk
3. Small Magnet
4. Molecular Motion Demonstrator
5. Overhead Projector (not pictured)

## Procedure:

1. Place the small balls and wooden disk in the demonstrator's field and use the adjustable feet to level it on the overhead projector.
2. Turn on the overhead projector and toggle the power switch on the side of the demonstrator to turn it on.
3. Slowly rotate the black knob clockwise to adjust the speed of the agitator bars to full power.
4. If required, initially incline the demonstrator to one side to get the balls to roll and strike the agitator bars.
5. Notice the small balls randomly knock around the wooden disk.